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# **Food Security Profiling of Khan Yunis 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

The survey, conducted in Gaza Strip was originally planned to be conducted simultaneously with one in the West Bank in January and February 2009. However, as a result of the Israeli military Operation Cast Lead during 27<sup>th</sup> December 2008 to 18 January 2009, the data collection period was delayed. In order to reflect the post-conflict situation, the survey questionnaire was slightly altered. It should be recognised that due to this alteration, the current measurement of food security using income and expenditures does not account for the volume and value of food assistance received. While this data was collected in the West Bank and intended for the Gaza Strip, the appropriateness of this methodology was reconsidered in light of the war. In the same way as the West Bank, the methodology also does not incorporate other food security dimensions such as availability of food and utilization (consumption, nutritional status) of food. There is no single indicator able to capture all these dimensions in a simple way. In this regard, the survey, conducted in the Gaza Strip during April to June 2009 was designed to meet following objectives:

1. Provide an overview of the socio-economic characteristics of households residing in Gaza Strip after the Israeli military operation in Gaza;
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 Gaza Strip after the war;
4. Identify household coping mechanisms, dietary diversity, priority needs
5. Provide an overview of 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 WFP, FAO and UNRWA. Considering that the dataset is cross-sectional, the analysis is thus static using only income and expenditure. 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 expenditure and income levels (3 way crosstabs) based on which the food insecurity levels were determined. The result generated by this survey was analyzed at four levels: governorate level; refugee status; and type of localities (urban, rural, and refugee camps). For this purpose, all 5 governorates of Gaza Strip were visited, including urban areas, rural areas and refugee camps (for detailed methodology please refer to Annex 1 and for detailed procedures refer to the SEFSec West Bank Report published in August 2009). It is hoped that the current methodology will be fully institutionalized by PCBS in the framework of the SEFSec monitoring system. FAO and WFP have been supporting PCBS in this endeavour during the past three years.

**Working Paper Series 3**  
**Governorate Food Security Profiling WBSG**  
**XIV. Khan Yunis Governorate**

**A. Population and Demography**

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

	Registered Refugees	Other	Total
Population	153,543	117,256	<b>270,799</b>
Percent	57%	43%	<b>100%</b>

Source: PCBS Population Census 2007

The governorate of Khan Yunis is situated in the South of the Gaza Strip with Deir Al Balah governorate lying to the north and Rafah governorate to the south. Approximately, 19 percent of the total Gaza population or 270,799 people live in Khan Yunis governorate. The average household size is 6.3 members and an estimated 42,984 households reside in Khan Yunis governorate.

Approximately, 57 percent of the population are registered refugees. The distribution of the population shows 83 percent of households live in urban areas, an additional 14 percent live in refugee camps and the remaining 4 percent live in rural areas. However, in the Gaza Strip, the lines drawn between urban and rural areas are fairly blurry.

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

	Urban	Rural	Refugee Camps	Total
Population	223,409	10,290	37,099	<b>270,799</b>
Percent	83%	4%	14%	<b>100%</b>

Source: PCBS Population Census 2007

**B. Labour Force**

Between the second quarter and the first quarter of 2009 labour force participation was on the increase but dropped by the second quarter of 2009. The labour force participation rate in the second quarter of 2008 stood at 38.1 percent and increased to 39.4 percent by the first quarter of 2009. In the second quarter of 2009, the labour force participation rate dropped to 37.7 percent. Unemployment levels in contrast, consistently decreased from the second quarter of 2008 at 51.7 percent to 44.1 percent by the second quarter of 2009.

**Table 1: Labour Force Participation and Unemployment Rate**

	Q2 08	Q3 08	Q4 08	Q1 09	Q2 09
Labour Force Participation %	38.1%	38.7%	38.4%	39.4%	37.7%
Unemployment %	51.7%	50.2%	47.1%	46.7%	44.1%

Source: PCBS Labour Force Surveys

A further examination of the changes in the population, labour force participation, employment and unemployment in absolute number is shown below. By the second half of 2008, the population above the age of 15 (working age population) grew by 2,400 persons. Additionally, labour force participation grew by 1,400 people. The number of those unemployed dropped by 2,135 with the creation of 3,535 jobs absorbing the unemployed and the new labour force participants. In the first half of 2009, the population aged 15 and above grew by another 2,436 persons. Labour force participation dropped by 214 individuals and unemployment dropped by 1,959 people. During the same period, 1744 jobs were created which partially absorbed the unemployed so that the drop in the labour force participation is a result of those who joined the discourage workers.

**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	274,861	276,922	278,999	281,092	283,200	4,138	4,201
Above the age of 15	159,419	160,615	161,820	163,033	164,256	2,400	2,436
Labour Force participation #	60,739	62,158	62,139	64,235	61,925	1,400	-214
Unemployed	31,402	31,203	29,267	29,998	27,309	-2,135	-1,959
Employed	29,337	30,955	32,871	34,237	34,616	3,535	1,744

Source: PCBS Population Census 2007 and Labour Force Survey Rounds

### C. Wages and Prices

Nominal wages refers to money paid as opposed to real wages representing actual purchasing power and has been readjusted to the Consumer Price Index. The average nominal daily wage was 62.8 NIS while average real daily wage stood at 54.2 NIS; average real wage was 14 percent lower than the average nominal daily wage. The gap between average nominal daily wage and the average real daily wage continued to increase during the observed period and by the second quarter of 2009, the average real wage was 16.8 percent lower than the average nominal wages.

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

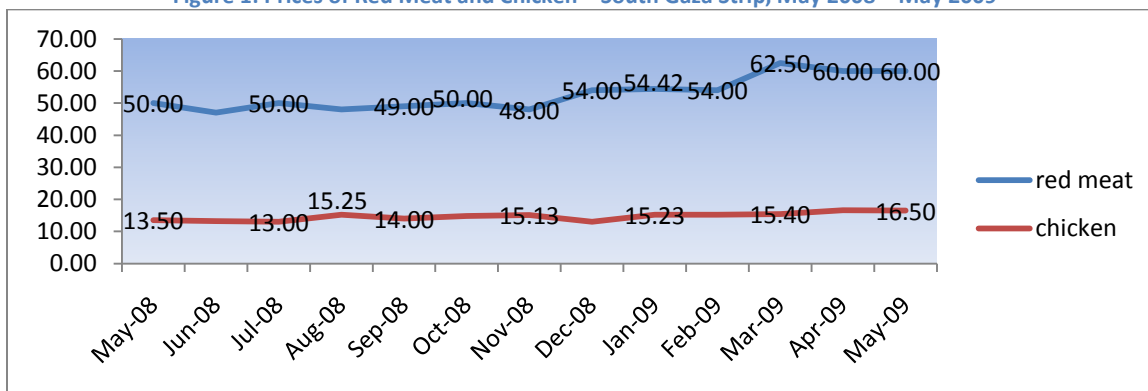
	Q2 08	Q3 08	Q4 08	Q1 09	Q2 09
Average nominal daily wage NIS	62.8	51.5	61.2	54.9	55.4
Average real daily wage NIS	54.2	43.5	51.6	46.0	46.1

Source: PCBS Data

Due to the protracted blockade, the entire population living in the Gaza Strip are generally hit by the same price shocks. If data was collected on the consumer price index at governorate level, it would most likely show insignificant differences when comparing from one governorate to another. However, the prices of selected food items have been collected and disaggregated by the north, middle and south areas of the Gaza Strip. Since Khan Yunis is located in the south of the Gaza Strip, basic indicators for food items collected in the southern area best reflects the socio-economic conditions for this area. The prices of red meat and chicken are shown in Figure 1 below, and the price of a variety of selected food items are shown in Figure 2.

The price per kilo of red meat remained relatively stable from the beginning of May 2008 to November 2008 where it stood at 48 NIS per kilo. Prices rose from December to 54 NIS and slightly rose in January 2009 to decrease again to 54 NIS per kilo by February. In March 2009, the price of red meat peaked at 62.50 NIS but appeared to stabilise at 60 NIS by May 2009. In contrast, the price of chicken incrementally increased only peaking in August 2008 at 15.25 NIS. The price of chicken per kilo which stood at 13.50 NIS in May 2008, by May 2009 increased to 16.50 NIS per kilo.

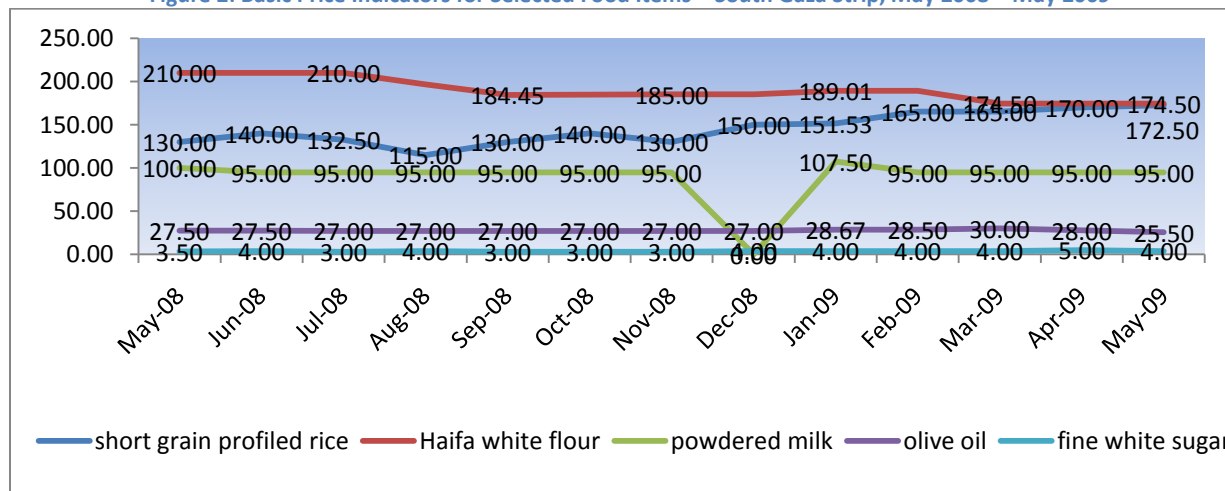
Figure 1: Prices of Red Meat and Chicken – South Gaza Strip, May 2008 – May 2009



Source: PCBS Data

Between May and July 2008, the price of Haifa white flour remained stable at 210 NIS. Prices continued to decrease onwards and by May 2009, the price of Haifa white flour stood at 174.50 NIS. The price of short grain rice increased in June 2008 to 140 NIS, decreased to 115 NIS by August of the same year, to increase again by October 2008 to 140 NIS. From December 2008 to May 2009, the price of rice rose to reach 172.50 NIS; 9 percent higher than the long term average. In comparison, the price of powdered milk, olive oil and fine white sugar remained stable. In December 2008, no price indicator for powdered milk was collected which accounts for the anomaly in Figure 2.

Figure 2: Basic Price Indicators for Selected Food Items – South Gaza Strip, May 2008 – May 2009

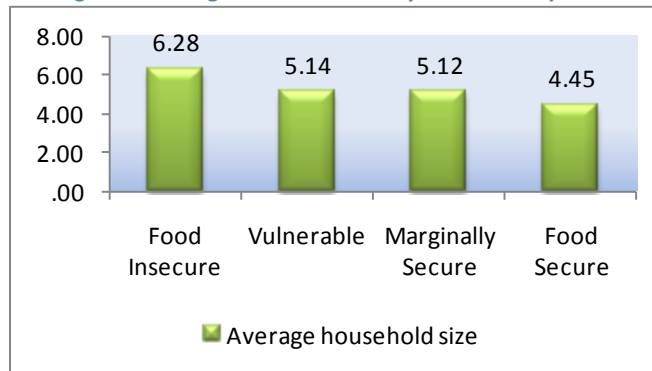


Source: PCBS Data

#### D. Household Composition among Food Insecure Households

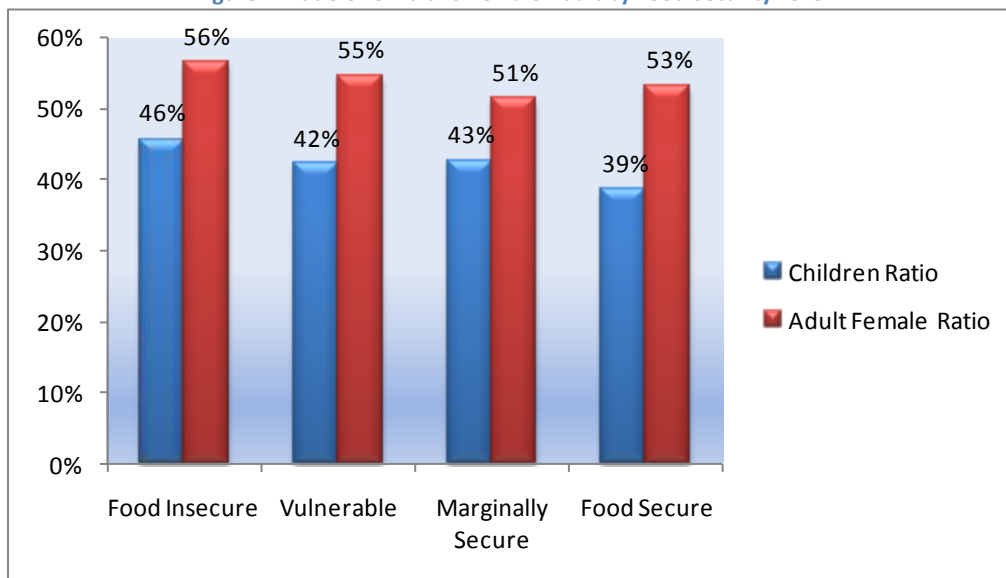
Findings of the Gaza household food security profiling show that the larger the size of the household, the greater the odds are for households to become food insecure. As shown in Figure 3, the average household size of the food insecure in Khan Yunis governorate is 6.3 members where as the average household size of food secure households in 4.5 members.

Figure 3: Average Household Size by Food Security Level



In Khan Yunis governorate, a higher adult female and child ratio correlates with higher odds of being food insecure. Food insecure households are composed of on average a 56 percent adult female ratio and a 46 percent child ratio. In comparison, food secure households are composed of a 53 percent adult female ratio and a 39 percent child ratio. The premise here is that the percentage of female adult employment is higher among food insecure households than food secure households. Furthermore, food insecure households as aforementioned are larger in household size and larger child ratio. This means that the dependency ratio on the income earner is greater which increases the odds of households to become food insecure.

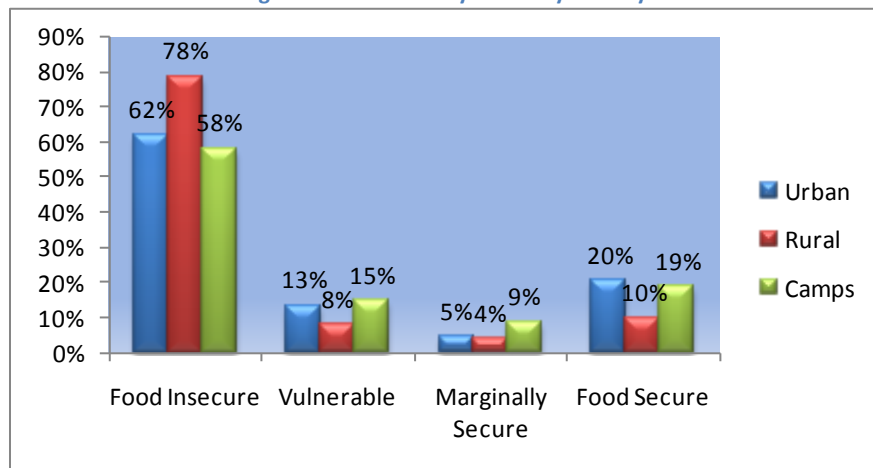
Figure 4: Ratio of Child and Female Adult by Food Security Level



### E. Food Insecurity Levels

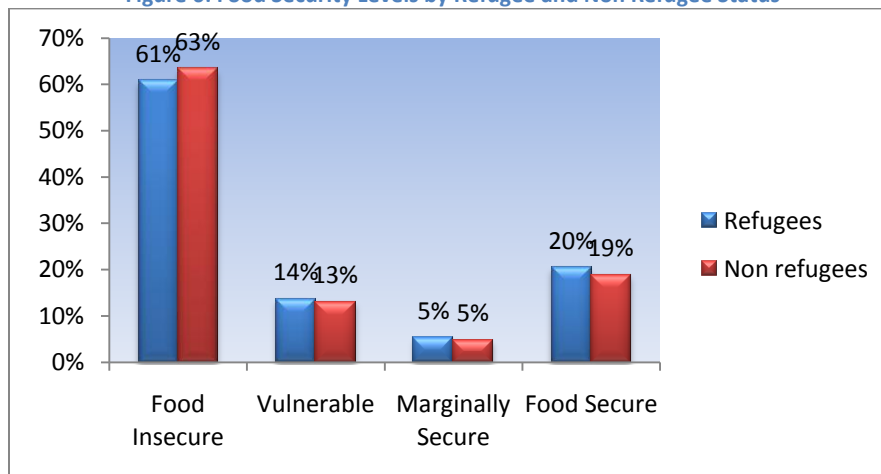
The breakdown of food security groups by locality shows that rural areas have a higher proportion of food insecure households compared to urban or refugee camp households. Seventy-eight percent of rural households are food insecure compared to 62 percent of urban households and 58 percent of refugee camp households. However, considering that the lines between rural and urban areas are blurry added with the concentration of the population within urban areas, in absolute terms, the concentration of food insecure households are actually greater than rural areas.

Figure 5: Food Security Levels By Locality



In Khan Yunis governorate, a slightly higher prevalence of food insecurity exists among non refugees compared to refugees. The prevalence of food insecurity is 3 percent higher amongst non refugees households at 63 percent whereas the prevalence among refugee households is 61 percent.

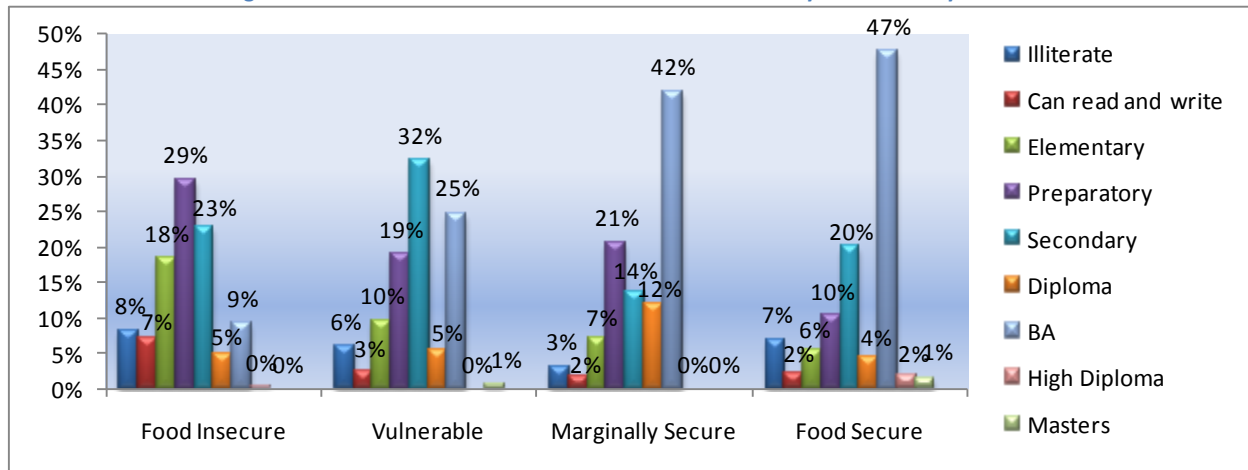
Figure 6: Food Security Levels by Refugee and Non Refugee Status



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

The following figure illustrates the correlation between the food security levels and the educational attainment of the head of household. Typically, households have a greater opportunity to be food secure if the head of household has completed Bachelor level education. For example, 47 percent and 42 percent of B.A. degree holders are food secure and marginally secure respectively. In comparison, the prevalence of heads of households with higher level education lowers in correlation with lower food security levels. For example, only 25 percent of heads of households vulnerable to food insecurity and 9 percent of heads of households who are food insecure are holders of a B.A. degree. While those who have completed preparatory level and secondary level as their highest educational attainment are less proportionate across the food security groups, in can still be said that the food insecure have a higher prevalence of lower educational attainment compared to the food secure. For example, Twenty-nine percent of heads of households who completed up to preparatory level education are food insecure compared to 10 percent who are food secure. Additionally, 23 percent of household heads who completed up to secondary level education are food insecure compared to 20 percent of food secure heads of households.

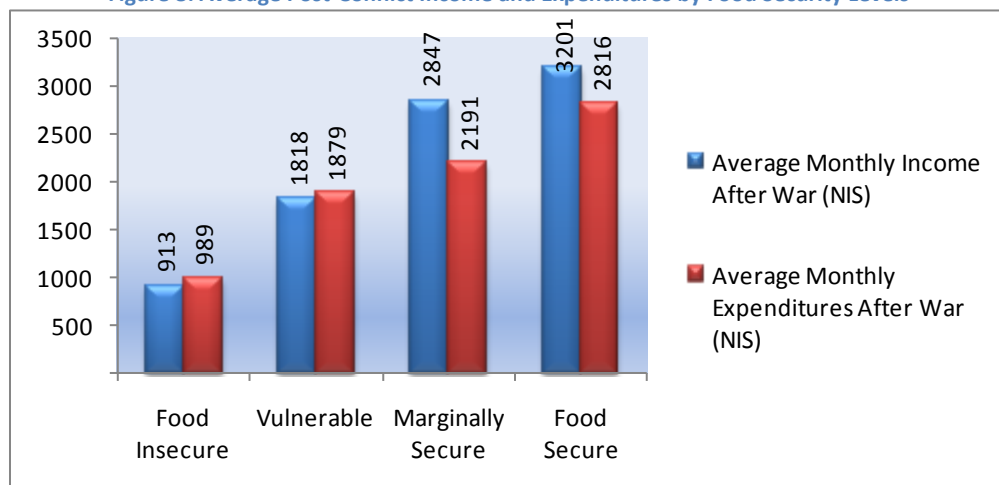
Figure 7: Educational Attainment of Head of Households by Food Security Levels



### G. Income and Expenditure Levels

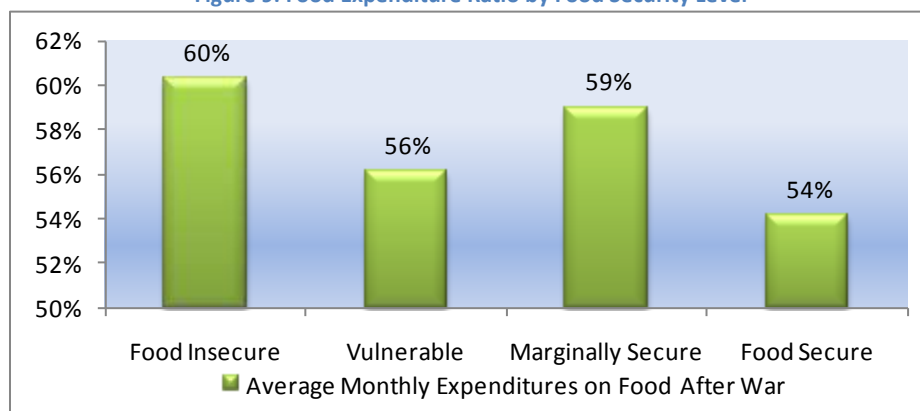
Similar to previous findings, food secure households report greater levels of income compared to expenditures whereas food insecure households report the opposite. It is likely that food secure households are able to save income whereas food insecure households are using credit to cope with shortfalls in income although there is a tendency for households to underreport income. Expenditure levels provide a more accurate picture of the gap between the food secure and food insecure. The average monthly expenditure of food insecure households is 989 NIS while the monthly household expenditure of food secure household is 2816 NIS. Therefore, the unmet gap in expenditures of the food insecure households to achieve food security is 65 percent.

Figure 8: Average Post-Conflict Income and Expenditures by Food Security Levels



The PCBS defines the worse off households as those whose food expenditures exceed 44 percent of their total household expenditures on the basis that households who exceed this amount have less disposable income to spend on non-food items. Food insecure households in Khan Yunis register the highest food expenditure ratio at 60 percent. The marginally secure households show exceptionally just as high a food expenditure ratio as the food insecure; 1 percent lower than food insecure households. However, food secure households and households vulnerable to food insecurity also fall above the PCBS thresholds. This means all households in Khan Yunis governorate are considered worse off.

Figure 9: Food Expenditure Ratio by Food Security Level



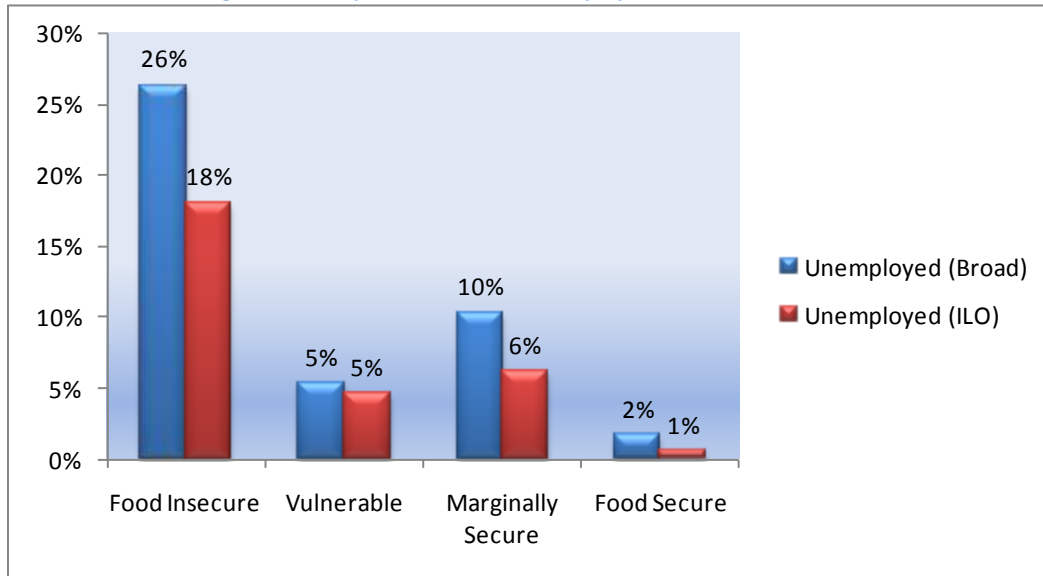
#### H. Employment, Occupation and Sector of Employment of Head of households

The following illustrates that food insecurity is a consequence of unemployment leading to income poverty. Broad unemployment<sup>1</sup> representing the actual socio-economic situation in Khan Yunis shows

<sup>1</sup> Broad unemployment refers to a definition which includes discourage workers; people who have looked for jobs with the last year but have given up hope finding one. The ILO standard definition of unemployment does not include discouraged workers and refers to a person of a specific age who is not in employment but is available and

that 26 percent of food insecure heads of households are unemployed compared to only 2 percent of food secure heads of households.

Figure 10: Comparison of Broad Unemployment and ILO Standard



Typical of trends of both the West Bank and the Gaza Strip, food insecure households tend to be employed in elementary occupations; in low-skilled casual labour. In Khan Yunis governorate, 39 percent of heads of households are employed in elementary occupation, 19 percent in services and sales, 12 percent in crafts and related trade work. Only a minimal percentage of food insecure heads of households occupy areas of employment such as professionals (6%), specialists (6%), clerks (4%) and legislative/senior managers (3%).

In comparison to the food insecure heads of households, the vast majority of food secure heads of households are employed in services and sales at 44 percent. This is followed by employment as specialists composing 31 percent of food secure heads of households. A greater percentage of food secure heads of households compared to food insecure heads of households are employed as professionals at 12 percent. Only 2 percent of food secure households are employed in elementary occupation and crafts related trade work. The figures demonstrate that employment in services and sales, specialists and professionals provide greater opportunities for households to be food secure where as employment in elementary occupation provides greater opportunities for food insecurity. Employment in crafts and related trade work and in plant-machine operating provides a high risk for food insecurity as import and export is restricted for trade including machineries in the Gaza Strip.

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given the opportunity to obtain a suitable job said person would have actively looked for ways to obtain the job in the recent past.

Figure 10: Occupation by of Food Insecure Heads of Households

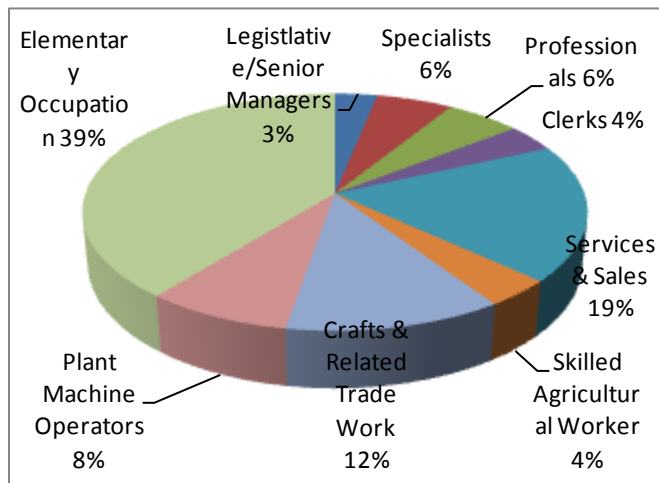
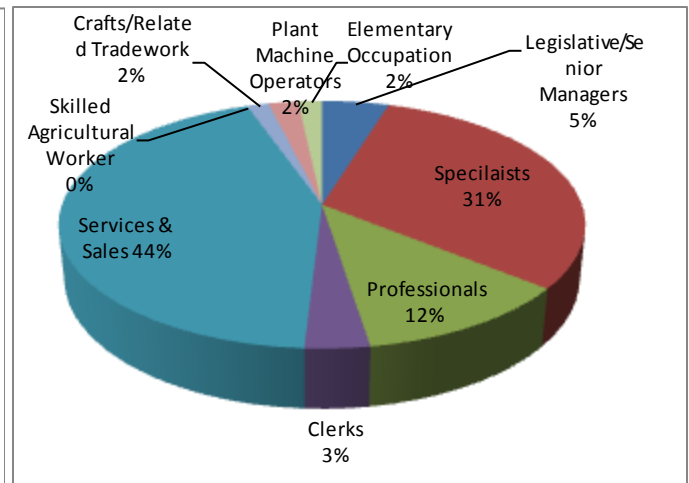


Figure 11: Occupation of Food Secure Head of Household



Further limitations on the livelihoods of the Khan Yunis population are illustrated in Table 6. The areas of employment in which food insecure heads of households are distributed are in agriculture and fishing, mining and manufacturing, construction and whole sale and retail trade. These areas of employment are to a large extent high risk forms of employment as they are reliant on free access in the movement of people and goods.

Agricultural and fisher folk's livelihoods are at risk of further erosion; these livelihoods are subjected to restrictions in the import of agricultural and fishing inputs, restrictions in the import and export of goods and limitations on farming land in proximity to the buffer zone and limitations on the number of nautical miles of fishing waters. Fifteen percent of food insecure heads of households compared to 1 percent of food secure heads of households are employed in agriculture and fishing.

Manufacturing in furniture, clothing, metal works is virtually at a halt in the Gaza Strip since the blockade began in June 2007. The inability of the Gaza Strip to now import raw materials means that employment within the manufacturing industry puts heads of households at high risk of food insecurity. For example, 11 percent of food insecure heads of households are employed in mining and manufacturing compared to only 1 percent of food secure heads of households.

The same restrictions in export and import applies to the whole sale retail trade resulting in a greater risk of households to be food insecure with 22 percent of the food insecure heads of households and only 9 percent of the food secure heads of households are employed within this area

Prior to the blockade, cement was imported into the Gaza Strip as no factory was established. Thus the construction sector is now limited due to a lack of cement. Employment in construction is high risk in that it provides no opportunities for food security as no heads of food secure households are employed within this area while 14 percent of food insecure heads of households are employed within this area.

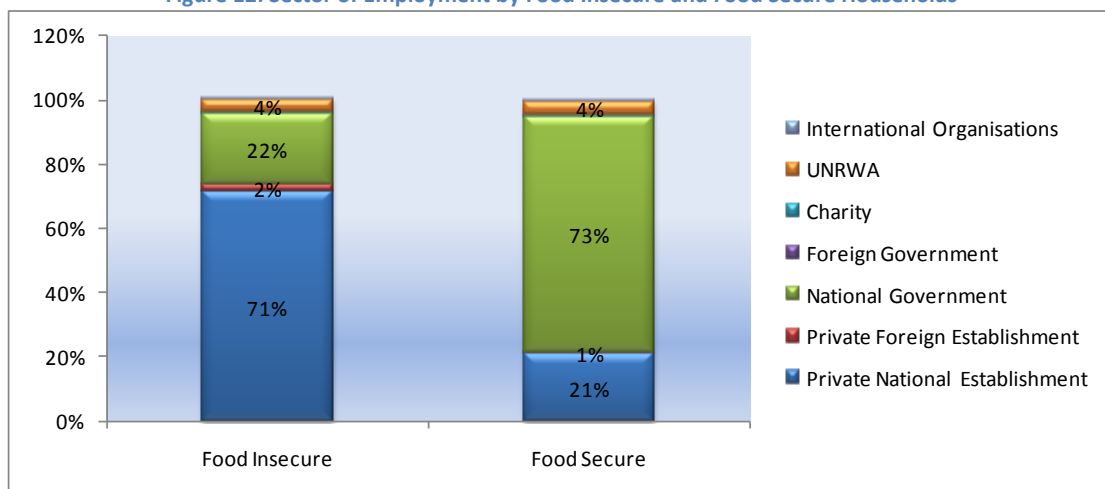
The vast majority of food secure households are employed in public administration and defense<sup>2</sup> at 52 percent, followed by education at 13 percent and health and social work at 11 percent. These are employment in civil service positions with reliable government income.

**Table 6: Area of Employment of Food Insecure and Food Secure Heads of Households**

	Food Insecure	Food Secure
Agriculture and fishing	<b>15%</b>	1%
Mining & manufacturing	<b>11%</b>	1%
Construction	<b>14%</b>	0%
Wholesale Retail Trade	<b>22%</b>	9%
Restaurants and hotels	0%	1%
Transport Storage Communication	9%	4%
Finance Insurance and Mediation	1%	2%
Properties, rents and commercial businesses	0%	2%
Public administration and defense	13%	<b>52%</b>
Education	8%	<b>13%</b>
Health and social work	3%	<b>11%</b>
Other social and personal care	2%	0%
International organisations	1%	3%
<b>Total</b>	<b>100%</b>	<b>100%</b>

A further examination of the sector of employment show that the vast majority of food insecure heads of households are employed in private national establishments; 71 percent of food insecure heads of households are employed in private national establishments. These are indicative of a shrinking private sector and employment within this area increases the odds of heads of households to be food insecure. Employment in the national government provides the highest odds for households to be food secure.

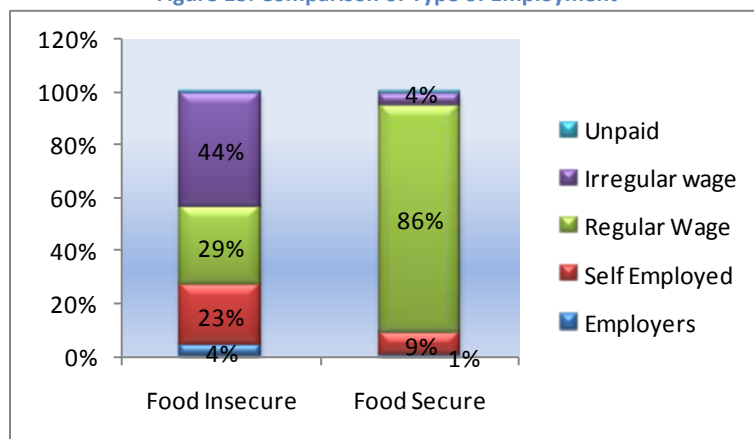
**Figure 12: Sector of Employment by Food Insecure and Food Secure Households**



<sup>2</sup> These are household heads employed in civil service positions with the de facto government in the Gaza Strip. PA employees are also likely captured within these areas of employment.

Typically, regular wages provides the greatest potential for household’s food security. In Khan Yunis, the proportion of food secure heads of households who are employed in regular wage work is 86 percent. Only 9 percent of the food secure heads of households are self-employed while 4 percent are employed in irregular wage work. In comparison, food insecure heads of households occupy a greater proportion of “wage risk” forms of employment such as irregular wage work and self-employment. Forty-four percent of the food insecure heads of households are employed in irregular wage work while 23 percent are self-employed. An additional determinant of the food security of households is the pay scale, evident in the 29 percent of food insecure households who are employed in regular wage work.

**Figure 13: Comparison of Type of Employment**



### ***F. Targeting and Assistance***

The following Figure 14 shows that out of the households who reported receiving assistance, 73 percent are food insecure households. In Khan Yunis, the distribution of assistance appears fairly well targeted. However, those households who reported receiving assistance continued to remain food insecure and 32 percent of households who reported that they do not receive food assistance are food insecure while 13 percent of those who reported receiving assistance are food secure<sup>3</sup>.

<sup>3</sup> Although the volume and value of assistance was not included within the current methodology to measure food security, findings from the WFP/FAO Socio-Economic and Food Security Survey Report 2 published in November 2009 show that 76 percent of the entire population reported receiving assistance. Food assistance have managed to protect the kilo calorie food intake of households in the Gaza Strip, however, the volume of assistance is not sufficient to lift people out of their income poverty levels given the limited scope in delivering humanitarian assistance in the Gaza Strip.

Figure 14: Reported Assistance Received by Food Security Levels

