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Food Security Profiling of North Gaza Governorate

Working Paper Series No. 3 - 2009

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

Based on data produced by the Palestinian Central Bureau of Statistics

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 27th 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 where 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
Governorate Food Security Profiling WBGS

XI. North Gaza Governorate

A. Population and Demography

Table 1: Percentage of Registered Refugee out of Total Population

	Registered Refugees	Other	Total
Population	162,015	103,880	**265,895**
Percent	61%	39%	**100%**

Source: PCBS Population Census 2007

The governorate of North Gaza sits on the northern most part of the Gaza Strip with Gaza governorate lying to the south. Approximately 19 percent of the Gaza Strip population or a total of 265,895 people live in North Gaza. The average household size in North Gaza is 6.7 members and approximately 39,686 households live in North Gaza governorate.

Approximately 61 percent of North Gaza's population are registered refugees. The distribution of the population by locality shows that 84 percent of refugee households is concentrated in urban areas, 1 percent in rural areas and 15 percent live in refugee camps. However, the lines drawn between urban and rural areas are fairly blurry.

Table 2: Distribution of the Population by Locality

	Urban	Rural	Refugee Camps	Total
Population	222,726	2,765	40,404	**265,895**
Percent	**84%**	**1%**	**15%**	**100%**

Source: PCBS Population Census 2007

B. Labour Force

Labour participation fluctuated between the second quarter to the fourth quarter of 2008 but has been on the decline since the fourth quarter of 2008. The labour force participation stood at 40 percent in the second quarter of 2008 and increased to 41.4 percent by the third quarter of 2008 and increased again to 40.1 percent by the fourth quarter. Between the fourth quarter of 2008 and the second quarter of 2009, the labour force participation rate decreased to 35.9 percent. Mean while, the unemployment rate between the second quarter and third quarter of 2008 increased from 34.1 percent to 48 percent. By the fourth quarter of 2008, unemployment decreased to 46.3 percent and declined onwards to the second quarter of 2009 to reach 36.5 percent.

Table 3: Labour Force Participation and Unemployment Rate

	Q2 08	Q3 08	Q4 08	Q1 09	Q2 09
Labour Force Participation	40.0%	41.4%	40.1%	39.4%	35.9%
Unemployment	34.1%	48.0%	46.3%	39.0%	36.5%

Source: PCBS Labour Force Surveys

Table 4 below provides a closer examination of changes in the population, labour force participation and employment in absolute numbers. By the second half of 2008, the population above the age of 15 (the working age population) grew by 2,357 persons. At the same time, labour force participation grew by 1,102 individuals while the number of jobs available dropped by 7,047 and the number of unemployed grew to 8,149 persons. In the first half of 2009, the number of people above the age of 15 grew by 2,392 persons. Labour force participation dropped by 5,815 persons while the unemployed dropped by 8,366 persons. At the same time, the number of jobs available grew by 2,552 absorbing part of the unemployed leaving 5,815 of the labour force participants unemployed. Therefore, the drop in labour force participation is a result of those unemployed joining the discouraged workers.

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

	Q2 08	Q3 08	Q4 08	Q1 09	Q2 09	Change 2nd Half, 2008	Change 1st Half, 2009
Population	269,883	271,907	273,947	276,001	278,071	4,063	4,125
Above 15 years of age	156,532	157,706	158,889	160,081	161,281	2,357	2,392
Labour force participation	62,613	65,290	63,715	63,072	57,900	1,102	-5,815
Unemployed	21,351	31,339	29,500	24,598	21,134	8,149	-8,366
Employed	41,262	33,951	34,215	38,474	36,767	-7,047	2,552

Source: PCBS 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. In the second quarter of 2008, the average nominal daily wage stood at 63.50 NIS while the average real daily wage stood at 54.80 NIS; a gap of 14 percent between nominal and real daily wages during this period. While the nominal daily wage appeared to decrease by the third quarter of 2008, at the same time real daily wages also decreased with the gap actually widening to 16 percent. In the fourth quarter of 2008 to the first quarter of 2009, nominal daily wages and real wages fluctuated with both appearing to increase between the two periods; however, the gap remained the same at 16 percent. By the second quarter of 2009, average nominal daily wage increase at the same time as average real daily wage increased however, the gap between the two increased to 17 percent signalling a further reduction in households' purchasing power as prices gradually increase.

Table 5: Average Nominal Daily Wage and Average Real Daily Wage

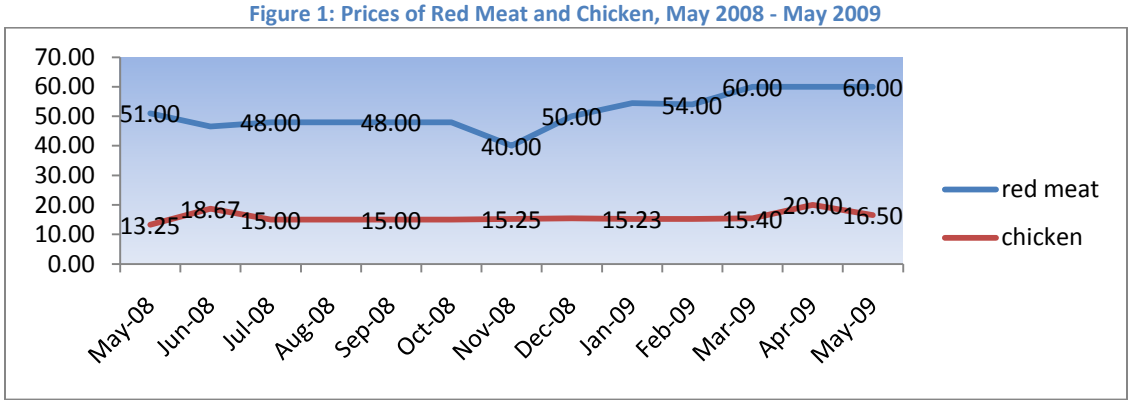
	Q2 08	**Q3 08**	**Q4 08**	**Q1 09**	**Q2 09**
Average nominal daily wage NIS	63.5	59.3	61.5	62.8	64.6
Average real daily wage NIS	54.8	50.0	51.9	52.6	53.8

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. Thus, the basic indicators for food items collected in the northern 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 1.

The price per kilo of red meat remained relatively stable from the beginning of May 2008 to October 2008 where it stood at 51 New Israel Shekels (NIS) per kilo in May 2008 and remained stable at 48 NIS per kilo to October 2008. The price in November dropped to 40 NIS and rose to 60 NIS and remained stable by May 2009. In contrast, the price of chicken remained relatively stable between July 2008 and March 2009. The price of chicken per kilo stood at 13.25 NIS in May 2008, by May 2009 stood at 16.50 NIS per kilo.

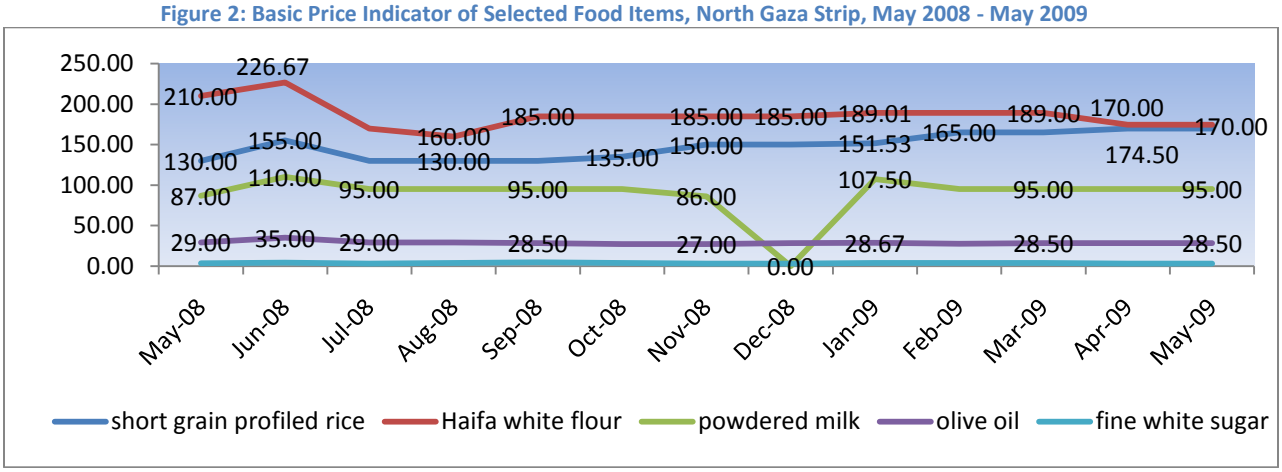
Figure 1: Prices of Red Meat and Chicken, May 2008 - May 2009



Source: PCBS Data

Between May and July 2008, the price of Haifa white flour which stood at 210 NIS in May 2008 rose to 226.67 NIS in July 2008 but stabilised to 185 NIS by December 2008. By January 2009, the price of Haifa white flour slightly increased to 189 NIS until April when it dropped to 170 NIS. The price of short grain profiled rice show an opposite trend of increasing during the observed period. In May 2008, the price of short grain rice stood at 130 NIS, peaking in June to 155 NIS to decrease again by July to 130 NIS and remained stable until November 2008. In November 2008, the price of rice increased again to 150 NIS and continually increased to reach 170 NIS by May 2009. The price of powdered milk in North Gaza fluctuated, starting in May 2008 when it stood at 87 NIS and soared to 110 NIS. By July 2008, the price remained stable at 95 NIS and decreased slightly to 86 NIS by November 2008. No price indicator was available in December 2008. In January 2009, the price of powdered milk reached 107.50 NIS but stabilised again to 95 NIS by May 2009. In contrast, the price of olive oil and fine white sugar remained stable.

Figure 2: Basic Price Indicator of Selected Food Items, North Gaza Strip, May 2008 - May 2009

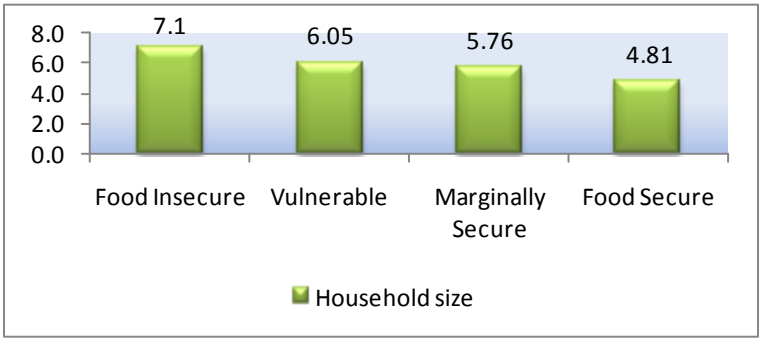


Source: PCBS Data

D. Household Composition among Food Insecure Households

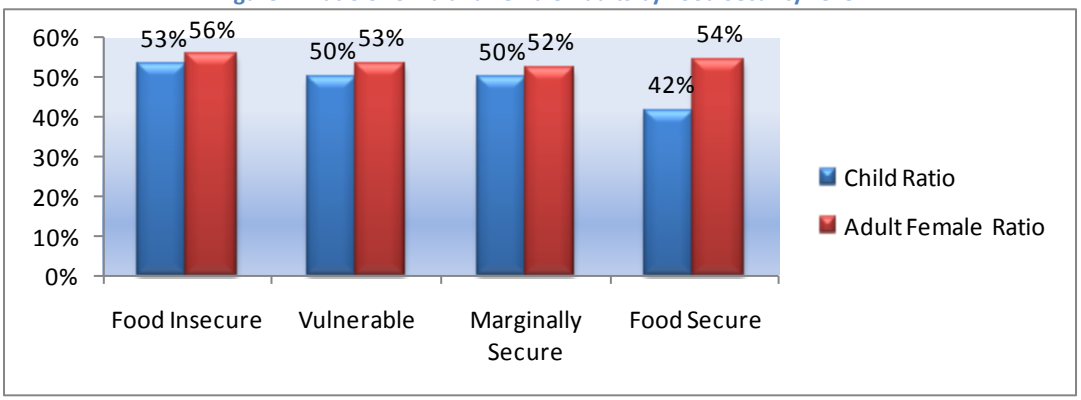
Findings of the Gaza household food security profiling show that the larger the size of the household, the greater the odds are for households to become food insecure. In North Gaza governorate, the average household size for food insecure households is 7.1 members. This figure lowers in proportion to the food security thresholds. Food secure households have the lowest average household size at 4.81 members.

Figure 3: Average Household Size by Food Security Level



In North Gaza, the ratio of female adult appears to effect the food security levels of households although the proportions appear inconsistent. The composition of households shows that the ratio of female adults within the household is 56 percent for the food insecure, 53 percent for the vulnerable and 52 percent for the marginally secure. Although the proportion of female adults in food secure households are lower than food insecure households, compared to the marginally secure and vulnerable to food insecurity, food secure households have a higher proportion of female adults at 54 percent. The child ratio within the household correlates with the food security levels of households. Generally, the higher the ratio the greater the odds are for households to be food insecure. The child ratio of food insecure households is 53 percent where as for food secure households, the ratio is 42 percent.

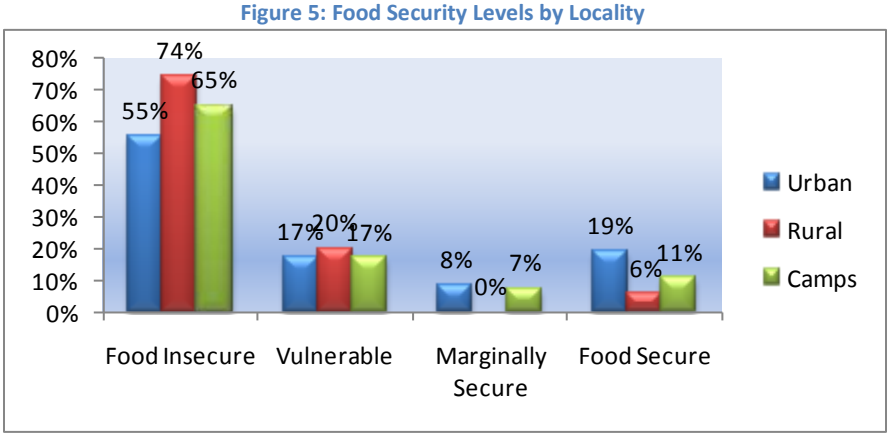
Figure 4: Ratio of Child and Female Adults by Food Security Level



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 households and refugee camps. Seventy-four percent of rural households are food insecure compared to 65 percent of refugee camp household. While the prevalence of food insecurity is lowest among urban households at 55 percent, keeping in mind that the concentration of the population is within urban areas, in absolute numbers food insecurity is actually higher within urban areas compared to refugee camp and rural households.

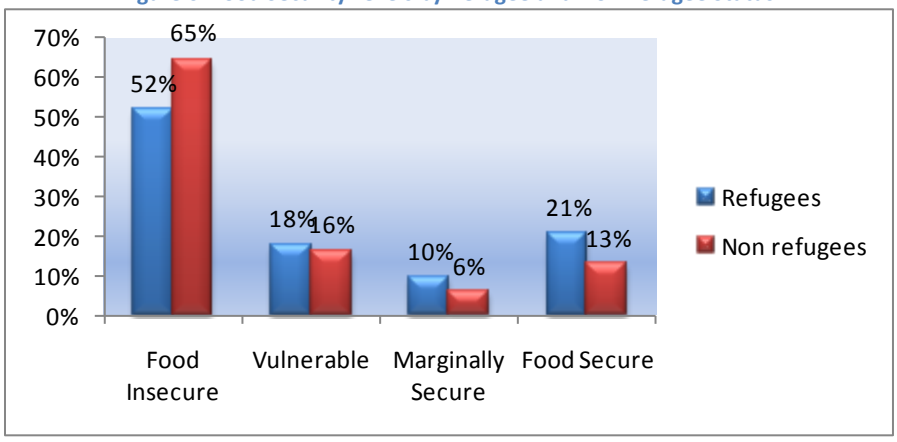
Figure 5: Food Security Levels by Locality



Consistent with findings of the Gaza Strip household food insecurity profiling[1], food insecurity is higher amongst non refugee households compared to refugee households. Sixty-five percent of non refugee households compared to 52 percent of refugee households are food insecure. Alternatively, 21 percent of refugee households are food secure compared to 13 percent of non-refugee households.

[1] WFP/FAO, Working Paper Series 2, Household Food Insecurity Profiling, Gaza Strip, forthcoming.

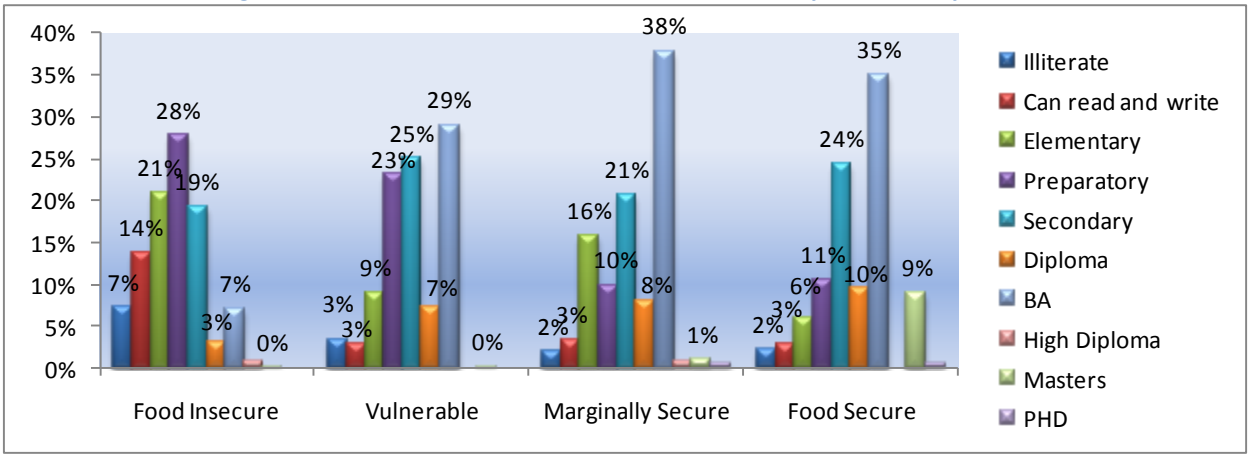
Figure 6: Food Security Levels by Refugee and Non Refugee Status



F. Education of Head of Household and Food Security Levels

The following figure shows a correlation between education and food security. Typically, households have a greater opportunity to be food secure if the head of household has completed higher level education. For example, 35 percent of those that have completed a B.A. degree are food secure compared to 7 percent who are food insecure. The percentage of those who have completed their B.A. degree lowers in proportion to their lower food security threshold with the exception of the marginal secure heads of households who register a slightly higher level of B.A. level educational attainment compared to the food secure heads of households. Illiteracy rates also lower in proportion to higher food security levels. Additionally, 7 percent of households heads who are illiterate are food insecure compared to 2 percent who are food secure. Secondary level education show fewer disparities amongst the food security groups. Twenty-four percent of those who have completed up to secondary level are food insecure, 21 percent are marginally secure 25 percent are vulnerable to food insecurity and 19 percent are food insecure. This suggests that secondary level education is the minimum level of educational attainment needed for households to be food secure or marginally secure although it does not guarantee it.

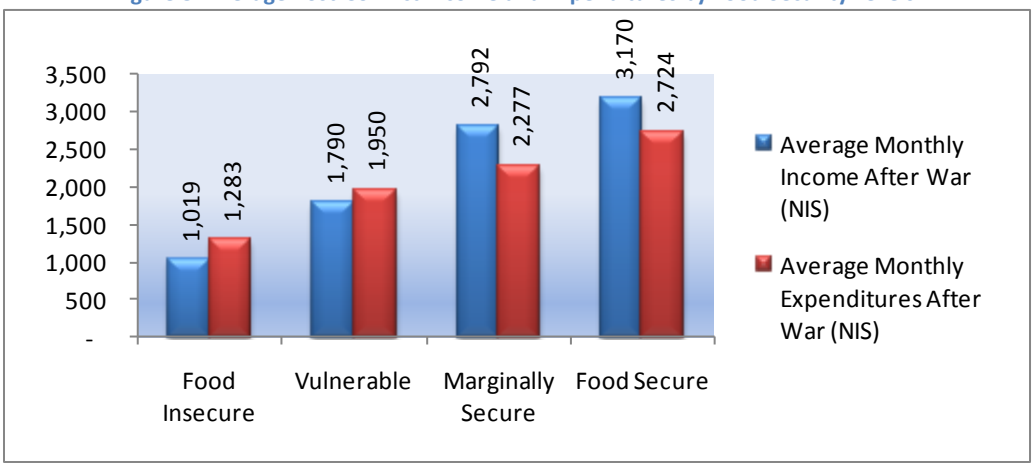
Figure 7: Educational Attainment of Heads of Households by Food Security Level



G. Income and Expenditure Levels

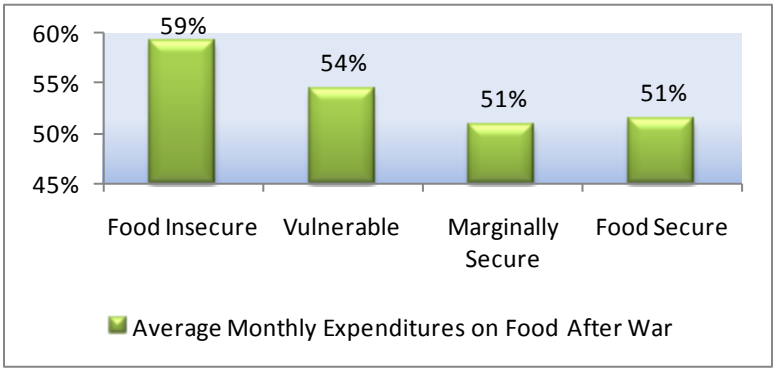
Similar to previous findings, food secure households report greater levels of income compared to expenditures where as food insecure households report the opposite. It is likely that food secure households are able to save money where as food insecure households are using credit to cope with shortfalls in their income. The average monthly expenditures of food secure households in North Gaza governorate is 2,724 NIS where as food insecure household's average monthly expenditure levels are 1,283 NIS. This means that food insecure households have an unmet 53 percent gap to achieve food security.

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



Food Insecure households show typically higher food expenditures out of the total compared to food secure households. This means that food insecure households have less disposable income on non food items such as utility bills, education and health care. Food insecure households spend 59 cents of every dollar on food where as food secure households spend 51 cents of every dollar on food. The PCBS thresholds for households who are worst off are those who spend over 44 cents of every dollar on food. Therefore all households in North Gaza governorate are accordingly worse off.

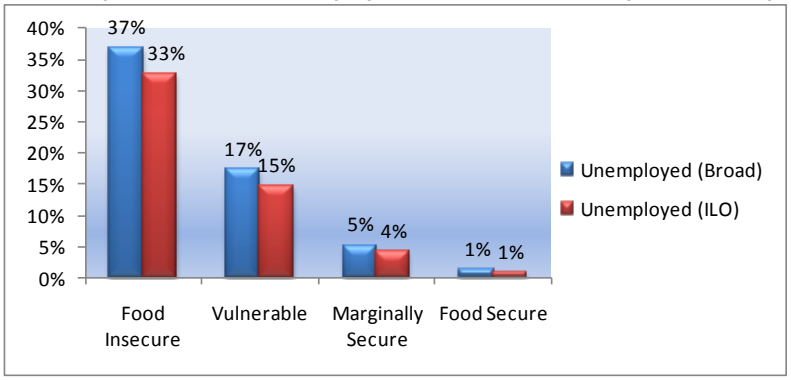
Figure 9: Food Expenditure Ration by Food Security Level



H. Employment, Occupation and Sector of Employment of Heads of Households

The following figure illustrates that food insecurity is a consequence of unemployment leading to income poverty. Broad unemployment, representing the actual socio-economic situation in the Gaza Strip shows that 37 percent of food insecure heads of households are unemployed compared to only 1 percent of food secure households.

Figure 10: Comparison of Broad Unemployment and ILO Standard by Food Security Level



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 North Gaza governorate, 34 percent of food insecure heads of households are employed in elementary occupation, 28 percent in services and sales, 12 percent in crafts and related trade work and 9 percent as plant and machine operators. Only a minimal percentage of food insecure heads of households occupy areas of employment such as specialists (5%), professionals (3%), skilled agricultural workers (3%), legislative/senior managers (4%) and clerks (1%).

In comparison to food insecure households, the vast majority of food secure households are employed in services and sales at 44 percent. This is followed by employment as specialists, composed of 33 percent of food secure heads of households. A greater percentage of food secure households are employed as legislative or senior managers and professionals at 8 percent and 7 percent respectively. Elementary occupation, plant machine operators and clerks take up less than 5 percent of food secure households.

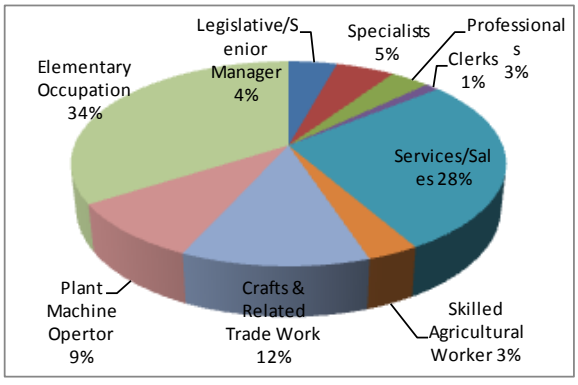


Figure 11: Occupation of Food Insecure Heads of Households

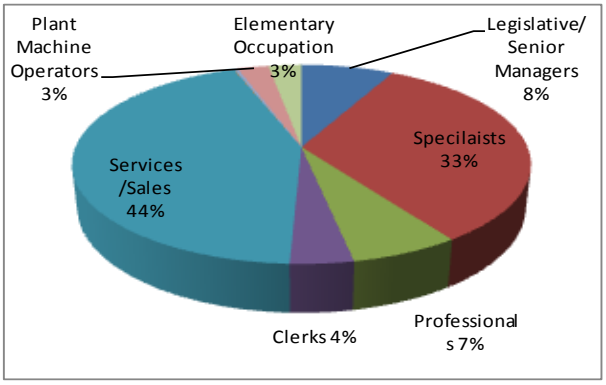


Figure 12: Occupation of Food Secure Heads of Households

Further limitations on the livelihoods of the North Gaza 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 a relaxation of import and export restrictions or free access of goods to and from the Gaza Strip.

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, limitations on farming land in proximity to the buffer zone and limitations on the number of nautical miles for fishing. Ten percent of food insecure heads of households are employed in agriculture and fishing and no food secure heads of households are employed within this area.

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 5 percent of food secure heads of households.

The same restrictions in export and import applies to the whole sale and retail trade resulting in a greater risk of households to be food insecure with 24 percent of the food insecure heads of households employed within this area compared to only 5 percent of food secure household heads.

Prior to the blockade, cement was imported into the Gaza Strip as no factory was established. The construction sector is composed of 12 percent of food insecure household while no food secure households appear within this area of employment.

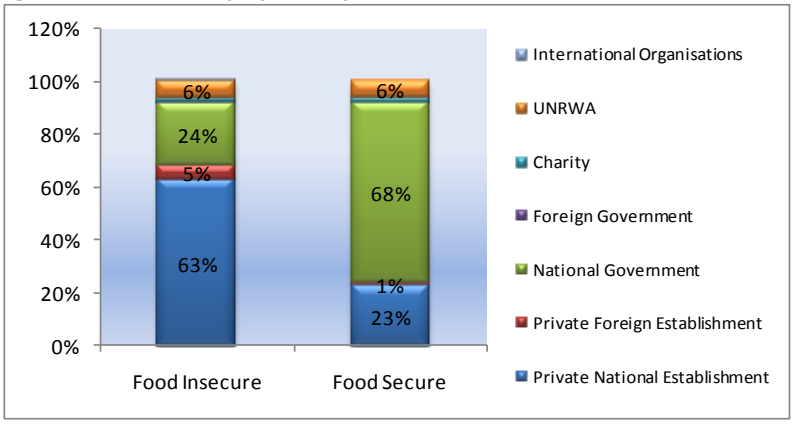
The vast majority of food secure households are employed in public administration and defense at 55 percent. This is followed by education and health and social work at 8 percent each and other social and personal care at 5 percent. These forms of employment are likely civil service positions providing households with a reliable government income at a sufficient pay scale. Employment in international organisations appears to provide slightly higher odds of being food insecure at 5 percent compared to 4 percent of the food secure employed in this area.

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

	Food Insecure	Food Secure
Agriculture and fishing	**10%**	0%
Mining manufacturing	**11%**	5%
Construction	**12%**	0%
Wholesale retail trade	**24%**	4%
Restaurants and hotels	1%	0%
Transport storage communication	**8%**	3%
Finance insurance and mediation	0%	2%
Properties, rents and commercial businesses	1%	4%
Public administration and defense	18%	55%
Education	5%	8%
Health and social work	4%	8%
Other social and personal care	2%	5%
International orgs	5%	4%
Total	**100%**	**100%**

Findings of the survey show that in North Gaza governorate, employment within international organisations provides equal opportunities for households to become food insecure or food secure. Typically, employment within the national government[2] provides the greatest odds for households to become food secure. For example, 68 percent of the food secure households compared to 24 percent of food insecure heads of households are employed in the national government. The vast majority of food insecure households are employed in private national establishments with 63 percent of food insecure heads of households compared to 23 percent of the food secure.

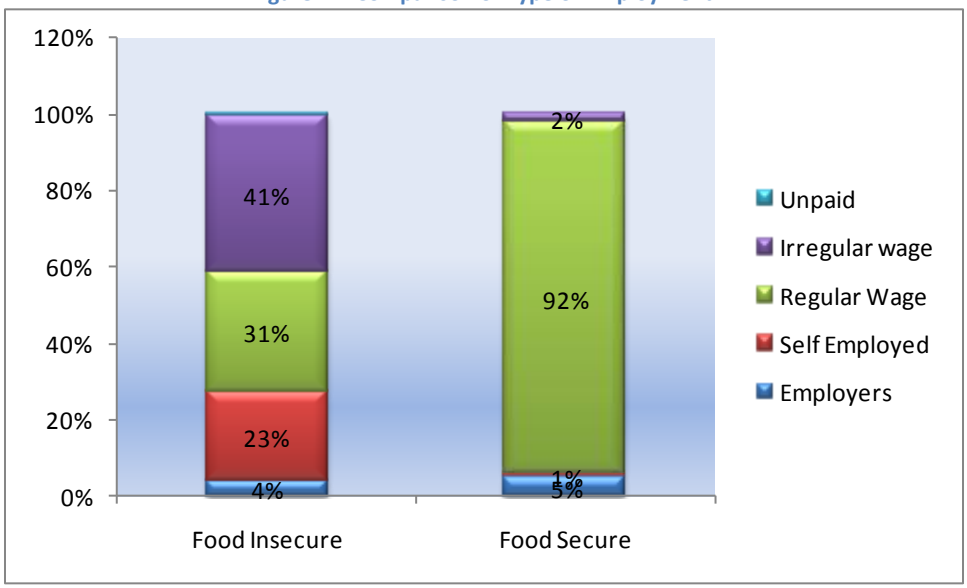
Figure 11: Sector of Employment by Food Insecure and Food Secure Households



[2] Employment in the national government refers to employment within the de facto government in the Gaza Strip although PNA employees are also captured within these figures.

Typically, the vast majority of food secure heads of households are employed in regular wage work; a total of 92 percent of food secure heads of households. Only 1 percent of the food secure heads of households are self-employed while 2 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-one percent of 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 31 percent of food insecure households who are employed in regular wage work.

Figure 12: Comparison of Type of Employment



I. Targeting and Assistance

The following Figure 13 shows that out of the households who reported receiving assistance, 64 percent are food insecure households. In North Gaza governorate, the distribution of assistance appears slightly disproportionate with 15 percent of food secure households reported receiving assistance compared to 7 percent of the marginally secure and 14 percent of the vulnerable to food insecurity. However, those households who reported receiving assistance continued to remain food insecure. Furthermore, 36 percent of households who reported that they do not receive food assistance are food insecure so that the 8 percent of the food secure who reported receiving assistance are receiving assistance at the expense of assistance to the food insecure[3].

[3] 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 13: Reported Assistance Received by Food Security Levels