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Food Security Profiling of Deir Al Balah 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**

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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 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 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

XIII. Deir Al Balah Governorate

A. Population and Demography

Table 1: Percentage of Registered Refugee out of Total Population

	Registered Refugees	Other	Total
Population	179,334	32,145	211,479
Percent	84.8%	15.2%	100%

Source: PCBS Population Census 2007

The governorate of Deir Al-Balah is situated in the middle area of the Gaza Strip with the Gaza Governorate lying to the north and Khan Yunis governorate to the south. Approximately 15 percent of the Gaza Strip population or a total of 211,479 people live in Deir Al Balah. The average household size in Deir Al Balah is 6.4 members with an estimated 33,043 residing in Deir Al Balah governorate.

Approximately 85 percent of the Deir Al Balah population are registered refugees. The distribution of the population by locality shows that 63 percent of households are living in the urban areas, 1 percent is living in the rural areas and 36 percent of households are living in refugee camps. 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	132,809	2,115	76,555	211,479
Percent	63%	1%	36%	100%

Source: PCBS Population Census 2007

B. Labour Force

Between the second quarter of 2008 and the second quarter of 2009, labour force participation rate has been fluctuating. The labour force participation rate stood at 38.7 percent in the second quarter of 2008, decreasing to 37.6 percent in the third quarter, to rise again by the first quarter of 2009 to 39.3 percent and drop to 37.1 percent by the second quarter of 2009. During the same period, the unemployment rate in the second quarter of 2008 stood at 64.3 percent and dropped significantly to 32.9 percent by the third quarter to rise again to 39.8 percent in the fourth quarter of 2008. The unemployment rate decreased to 35.4 in the first quarter of 2009 and continued to decrease by the second quarter of 2009 to 33.3 percent.

Table 3: Labour Force Participation and Unemployment Rate

	Q2 08	Q3 08	Q4 08	Q1 09	Q2 09
Labour Force participation	38.7%	37.6%	38.6%	39.3%	37.1%
Unemployment	64.3%	32.9%	39.8%	35.4%	33.3%

Source: PCBS Labour Force Surveys

Table 5 below provides a closer examination of changes in the population, labour force participation, employment and unemployment in absolute numbers. By the second half of 2008, the population above 15 years of age (working age population) grew by 1,874 individuals. At the same time the number of labour force participants grew to 599 people. During the same period, unemployment dropped by 11,566 people due to the creation of 12,165 jobs which absorbed the new labour force participants and the unemployed. In the first half of 2009 the number of labour force participants dropped by 1,190 people and the number of unemployed persons decreased to 3,567. Only 2,377 jobs were created which was only able to absorb a proportion of the unemployed individuals. Therefore, the drop in unemployment is partially attributed to the drop in labour force participants who joined the discouraged population.

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

	Q2 08	Q3 08	Q4 08	Q1 09	Q2 09	Change 2 nd Half 2008	Change 1 st Half 2009
Population	214,651	216,261	217,883	219,517	221,163	3,232	3,280
Above 15 years of age	124,498	125,431	126,372	127,320	128,275	1,874	1,903
Labour Force participation #	48,181	47,162	48,780	50,037	47,590	599	-1,190
Unemployed	30,980	15,516	19,414	17,713	15,847	-11,566	-3,567
Employed	17,200	31,646	29,365	32,324	31,742	12,165	2,377

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. In the second quarter of 2008, the average nominal daily wage in Deir El-Balah was 73.1 New Israeli Shekels (NIS) while the average real daily wage stood at 63.1 NIS. The average real wage was 14 percent lower than nominal wages and by the third quarter of 2008 the gap between real and nominal wages increased by 1 percent. Although the average nominal wages appear to lower towards the fourth quarter of 2008, real wages at the same time have been on the decline. From the third quarter of 2008 to the first quarter of 2009, average real daily wage remained 16 percent lower than nominal wage until the second quarter of 2009 where the gap increased to 17 percent.

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	73.1	64.3	58.9	63.2	75
Average real daily wage NIS	63.1	54.3	49.7	52.9	62.4

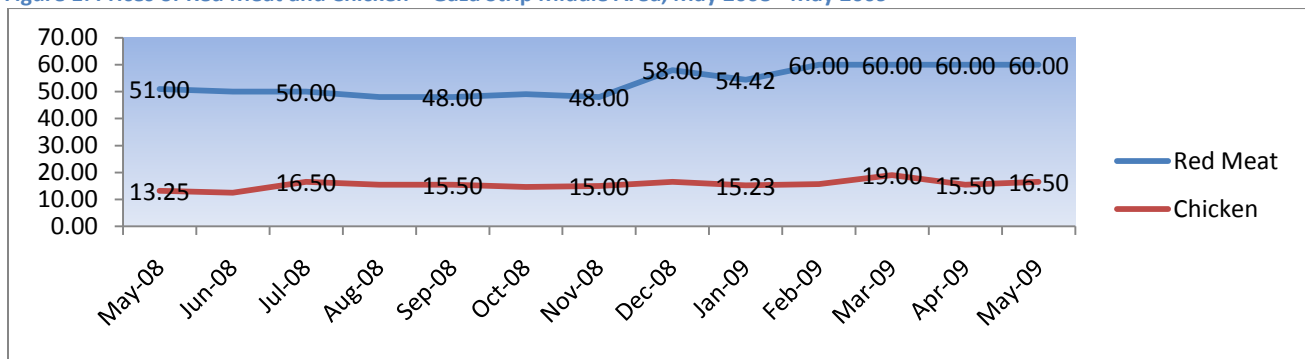
Source: PCBS Data

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 the 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 Deir Al Balah is located in the middle area, basic indicators of prices for food items collected in the middle 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 of red meat stood at 51 NIS per kilo in May 2008 and continued to decrease until November 2008. Coinciding with Operation Cast Lead in December 2008, the price of red meat peaked to 58 NIS per kilo, dropping again in January 2009 but increased again and stabilised at 60 NIS per kilo by May 2009. The price of chicken in May 2008 stood at 13.25 NIS per kilo rising slightly to 16.50 NIS in July. Prices remained relatively stable from July 2008 to March 2009 when it peaked to 19 NIS per kilo and fluctuated through to May 2009 where it stood at 16.50 NIS per kilo.

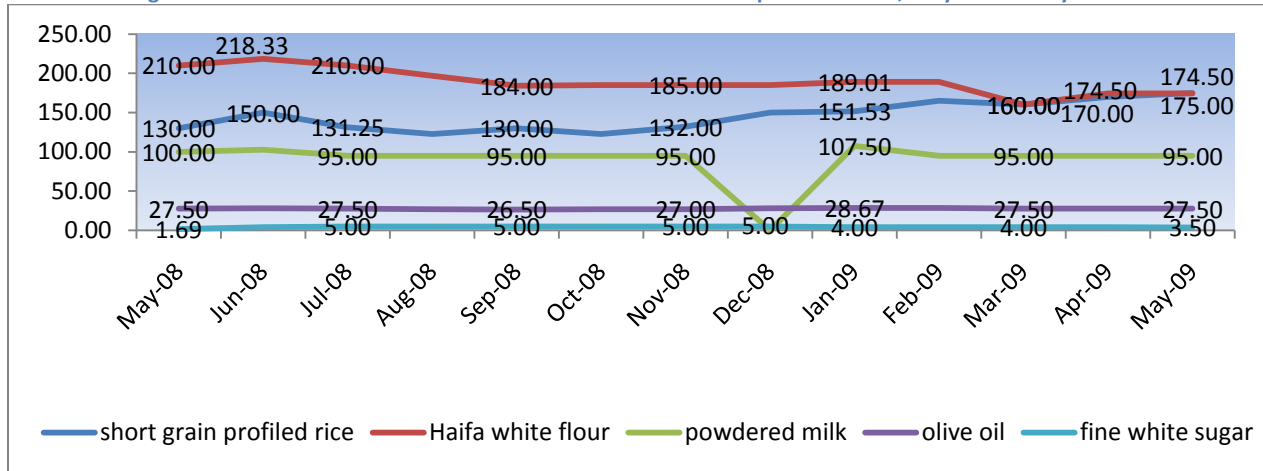
Figure 1: Prices of Red Meat and Chicken – Gaza Strip Middle Area, May 2008 - May 2009



Source: PCBS Data

The price of Haifa white flour in May 2008 stood at 210 NIS in May 2008 and increased by 8.33 NIS in June. From June 2008, the price of Haifa white flour remained relatively stable ranging from 184 NIS to 189 NIS until March 2009 when it dropped to 160 NIS. From March 2009, prices appeared to stabilise at 174.50 NIS. The price of short grain profiled rice appeared to show similar trends as flour during the second and third quarter of 2008. The price of rice stood at 130 NIS in May 2008 and peaked in June to 150 NIS to decrease again by July 2008 to 131.25 NIS. The price of rice fluctuated within this range until November 2008 when prices began to increase again. The price of rice which stood at 132 NIS in November 2008 increased to 175 NIS by the end of May 2009. In comparison, the price of powdered milk, olive oil and fine white sugar appeared to remain stable. In December 2008, no price indicator was collected for powdered milk which accounts for the anomaly seen in the figure below.

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

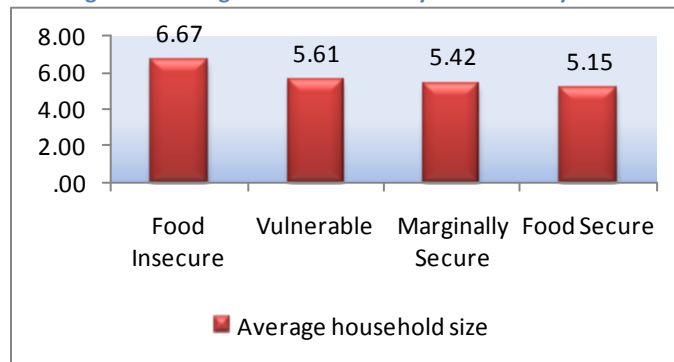


Source: PCBS Data

D. Household Composition among Food Insecure Households

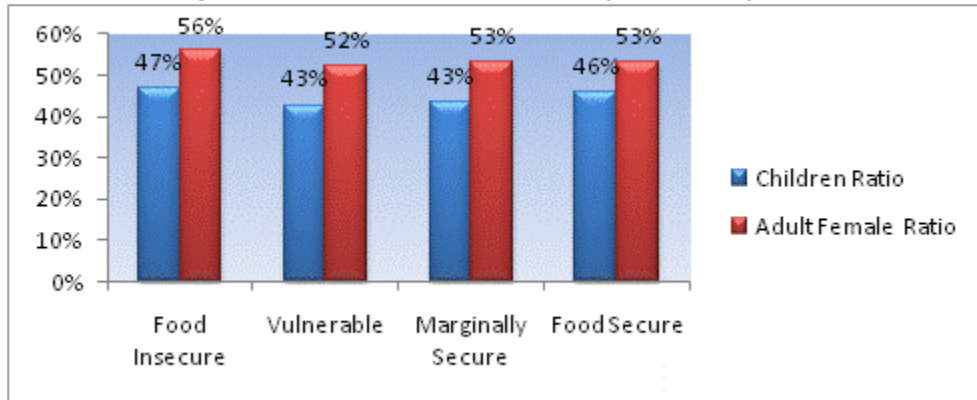
Findings of the Gaza household food security profiling show that the larger the size of the household the greater the odds for households to become food insecure. The governorate of Deir Al Balah is not an exception. As shown in Figure 3, the average household size of food insecure households is 6.7 members, where as the average household size of food secure household is 5.2 members.

Figure 3: Average Household Size by Food Security Level



Contrary to previous finding in which a larger child ratio correlates with higher odds for food insecurity, between the food insecure and the food secure households in Deir Al Balah, the percentage of children out of the total household members do not seem to have such a large affect on household food security levels. The ratio of children out of the total household members is 47 percent for food insecure households and only 1 percent lower for food secure households. The ratio of total female adults out of total household members is slightly higher among food insecure at 56 percent compared to the food secure at 53 percent. This slightly higher percentage among the food insecure is due to the lower percentage of female adult employment among the food insecure compared to the food secure. Therefore, a larger household size, a larger female adult ratio and a lower female employment creates greater dependency on one income earner which in effect creates greater chances for households to be food insecure.

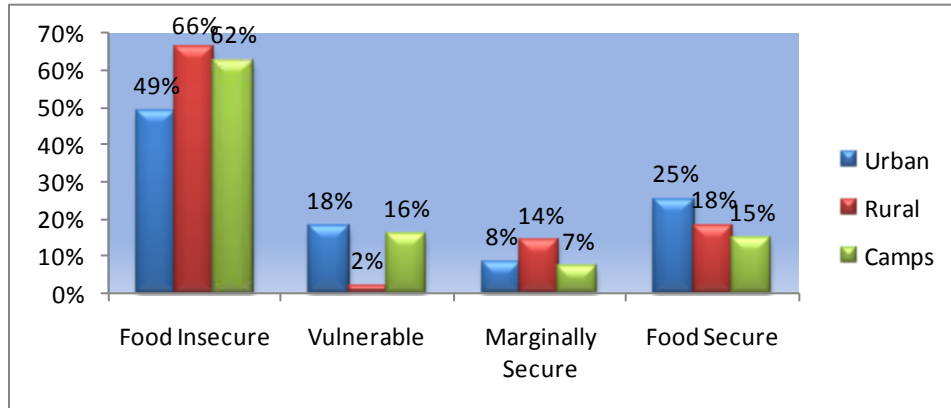
Figure 4: Ratio of Child and Female Adult by Food Security Level



E. Food Insecurity Levels

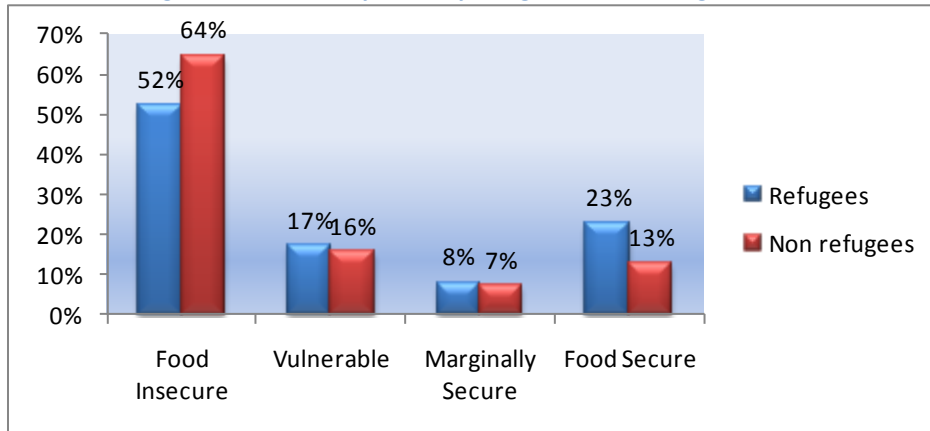
The breakdown of food security groups by locality shows that rural areas have a higher proportion of food insecure households compared to refugee camp households and urban households. Sixty-six percent of rural households are food insecure compared to 62 percent of refugee camp households. The food insecurity levels among urban households is lower at 49 percent, however, considering that a higher concentration of households reside in urban areas, in absolute terms, a greater number of urban households are food insecure compared to rural or refugee camp households.

Figure 5: Food Security Levels by Locality



The prevalence of food insecurity is higher amongst non refugees compared to refugee households. Sixty-four percent of non refugee households are food insecure compared to 52 percent of refugee households. Alternatively, food security levels are higher amongst refugee households at 23 percent compared to non refugee households at 13 percent.

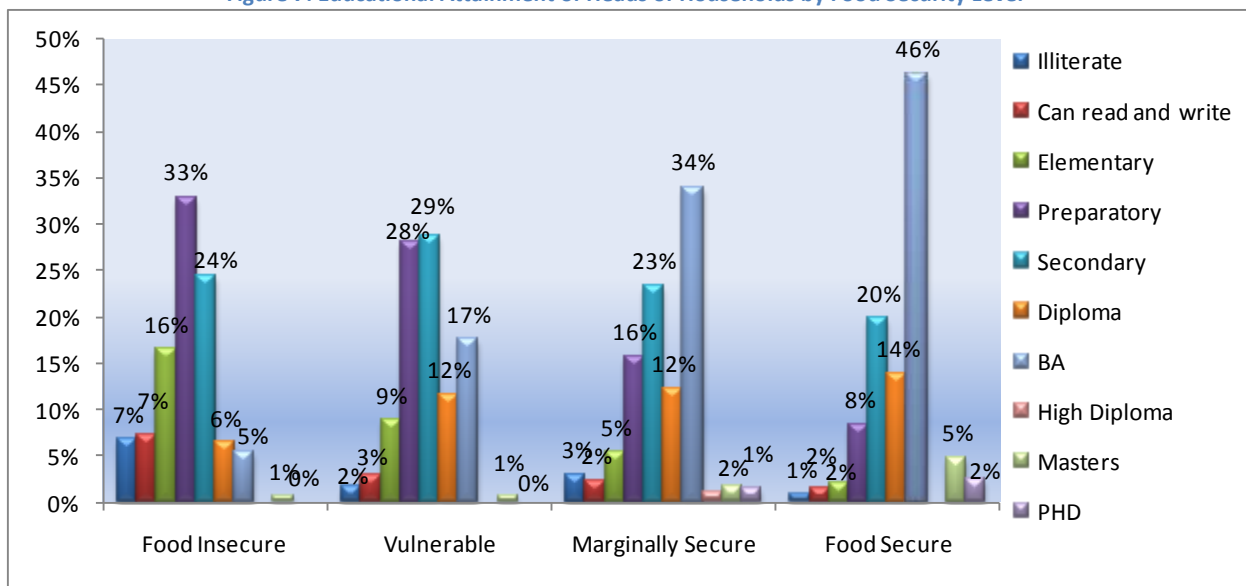
Figure 6: Food Security Levels by Refugee and Non Refugee Status



F. Education of Head of Household and Food Security Levels

The following figure shows a direct correlation between education and food security. Typically, households have a greater opportunity to be food secure if the head of household has completed Bachelor level education. For example, 46 percent and 34 percent of B.A. degree holders are food secure and marginally secure heads of households respectively, compared to 17 percent and 5 percent of the vulnerable and food insecure heads of households. The highest percentage of illiteracy rates are also among the food insecure heads of households at 7 percent compared to food secure households at 1 percent. The vast majority of the Deir Al Balah population have completed up to preparatory level education. These figures lower in accordance to greater levels of food security. Thirty-three percent of those completing preparatory level education are food insecure, 28 percent are vulnerable, 16 percent are marginally secure and only 8 percent are food secure. Furthermore, the distribution of household heads by secondary level education show that households derive almost equal odds of being food insecure and vulnerable to food insecurity as marginally secure and food secure.

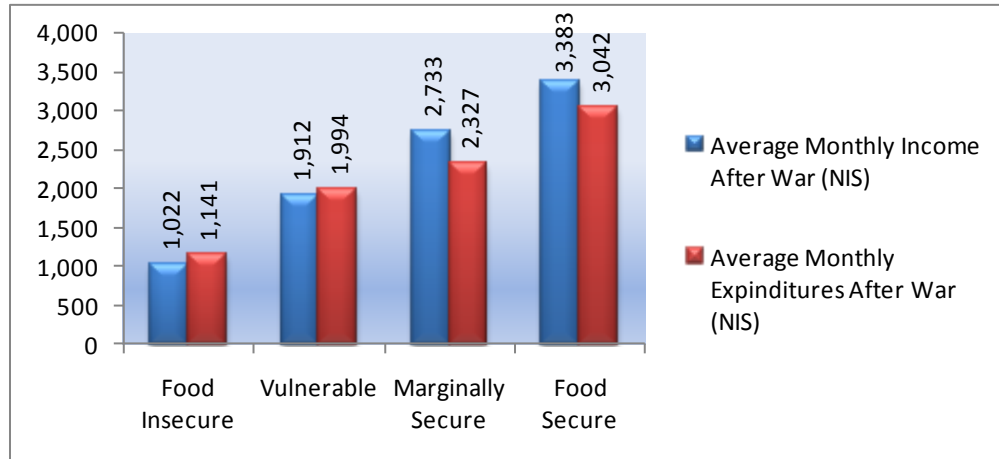
Figure 7: Educational Attainment of Heads of Households by Food Security Level



G. Income and Expenditure Levels

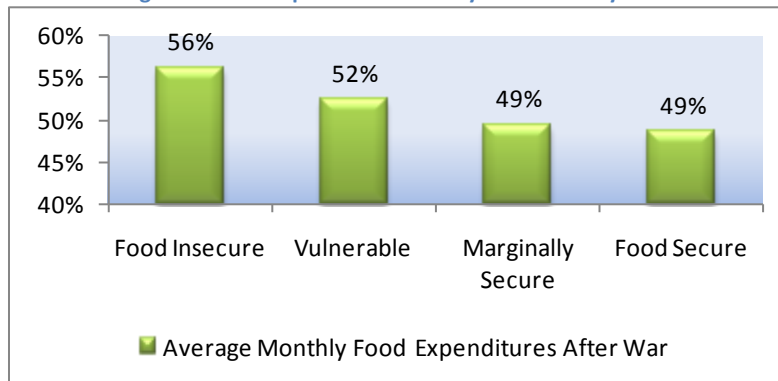
Similar to previous findings, food secure households report greater levels of income compared to expenditures whereas food insecure households report the opposite. It is likely that food secure households are able to save income whereas food insecure households are using credit to cope with shortfalls in income. The average monthly household expenditure of food insecure households is 1,141 NIS while the monthly household expenditure of food secure households is 3,042 NIS. The unmet gap in expenditures of the food insecure households to achieve food security is 62 percent.

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



Food insecure households show typically higher food expenditures out of the total expenditures compared to food secure households. This means that food insecure households have less disposable income on non food items such as education, health care utility bills and so forth. The less money is spent on non food items, the less likely households will be to move out of their food security thresholds. Food insecure households spend 56 cents of every dollar on food whereas food secure households spend 49 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 Deir Al Balah governorate, be it food insecure or food secure are accordingly worse off.

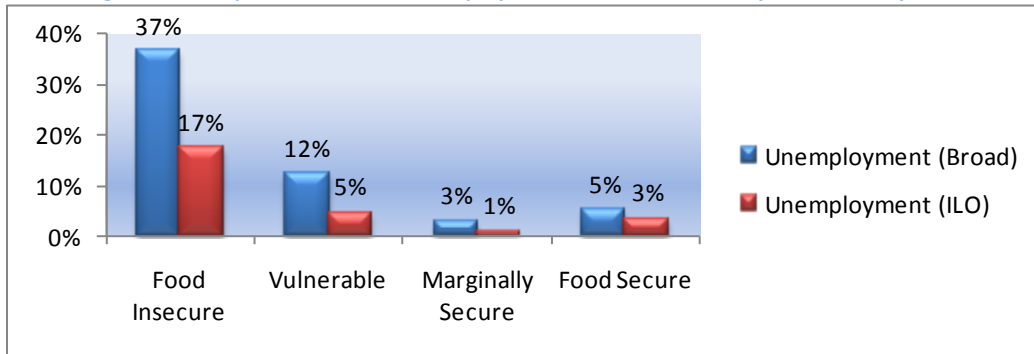
Figure 9: Food Expenditure Ratio by Food Security Level



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 unemployment¹ 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 5 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 Deir Al Balah governorate, 36 percent of heads of households are employed in elementary occupation, 26 percent in services and sales, and 14 percent in crafts and related trade work. Professionals, specialists, skilled agricultural workers, plant machine operators and legislative and senior manager positions which are forms of employment which tend to provide food security, are occupied by 2 percent to 8 percent of food insecure household heads.

The vast majority of the population of Deir Al Balah governorate are employed in services and sales. Although services and sales provide greater opportunities for households to be food secure with 41 percent of the food secure compared to 26 percent of food insecure heads of households, the figures show that employment in this area does not necessarily guarantee food security.

¹ Broad unemployment refers to a definition which includes discourage workers; people who have looked for jobs within the last year but have given up hope of 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 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 11: Occupation of Food Insecure Heads of Households

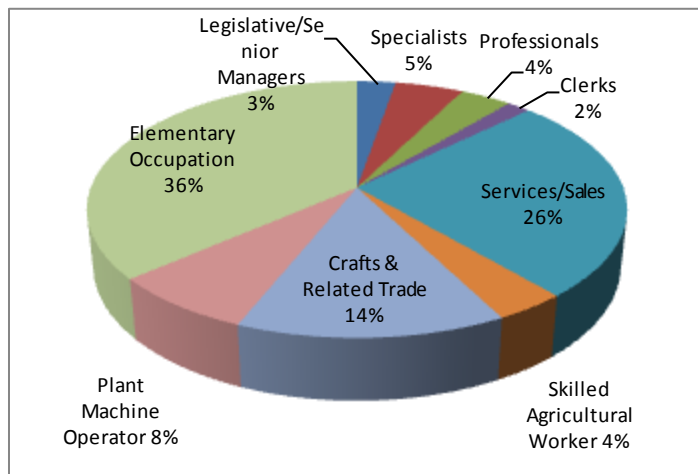
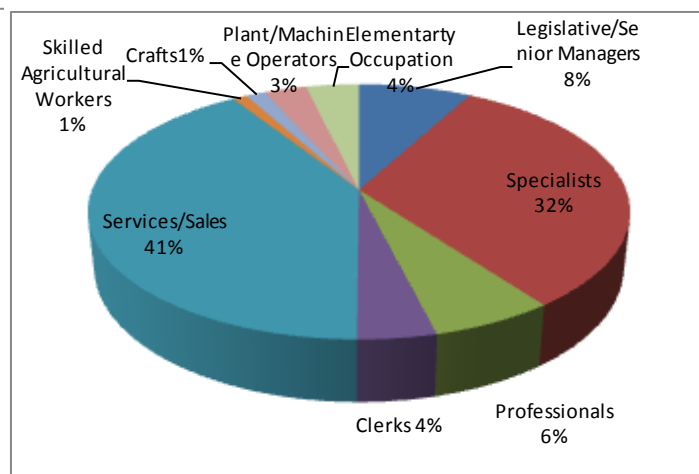


Figure 12: Occupation of Food Secure Heads of Households



The vast majority of the population are employed in public administration and defense.² Public administration and defense is composed of 54 percent of food secure heads of households and 20 percent of food insecure heads of households suggesting that household heads employed in this area derive greater odds for being food secure. Employment in civil service suggests that reliable government income correlates with better food security for households. Education and health, also civil service employment, show greater opportunities for food security for households. Twenty percent of food secure heads of households are employed in education compared to 5 percent of food insecure heads of households. Additionally, 9 percent of food secure heads of households are employed in health and social work compared to 2 percent of food insecure households.

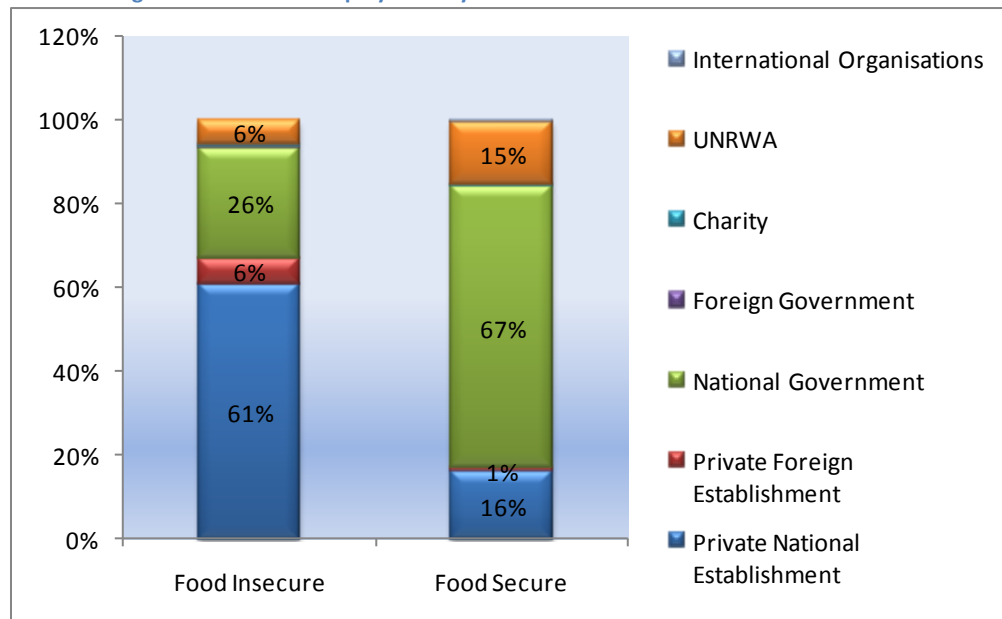
Table 6: Area of Employment of Food Insecure and Food Secure Households

	Food Insecure	Food Secure
Agriculture and fishing	14%	1%
Mining & manufacturing	11%	3%
Construction	16%	2%
Wholesale retail trade	15%	2%
Restaurants and hotels	2%	0%
Transport storage communication	6%	3%
Finance insurance and mediation	0%	1%
Properties, rents and commercial businesses	1%	1%
Public administration and defense	20%	54%
Education	5%	20%
Health and social work	2%	9%
Other social and personal care	3%	2%
International organisations	5%	4%
Total	100%	100%

² These are household heads employed in civil service positions with the de facto government in the Gaza Strip.

The following Figure 13 confirms that employment within the national government³ provides a more reliable income for households. Sixty-seven percent of food secure households are employed within the national government compared to 26 percent of food insecure households. The private national establishment is also the highest employers of food insecure heads of households at 61 percent compared to 16 percent of food secure heads of households. Fifteen percent of food secure heads of households are also employed by the United Nations Relief Works Agency (UNRWA) and 6 percent are food insecure heads of households⁴.

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

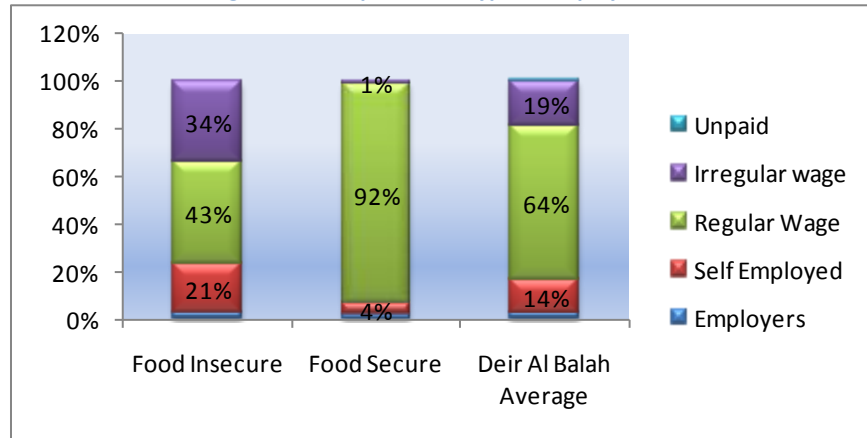


Regular wages in Deir Al Balah is a predominant factor in potentially guaranteeing household food security alongside pay scale. The findings show that ninety-two percent of food secure heads of households are employed in regular wage work compared to 43 percent of food insecure households. Irregular wage employment and self employment which are 'wage risk' forms of employment compose of the greatest percentage of food insecure heads of households. Thirty four percent of food insecure heads of households are irregular wage workers and 21 percent are self employed. This is compared to 21 percent of food secure heads of households employed as irregular wage workers and 15 percent who are self-employed.

³ Employment in the national government refers to employment within the de facto government in the Gaza Strip although PA employees are also captured within these figures.

⁴ UNRWA employment is based on information provided by the surveyed population. It could comprise of permanent UNRWA employment and employment under UNRWA's Job Creation and Graduate Training Programmes. The latter is cash for work intervention within the framework of an emergency and relief programme, and cannot therefore be counted as official UNRWA employees.

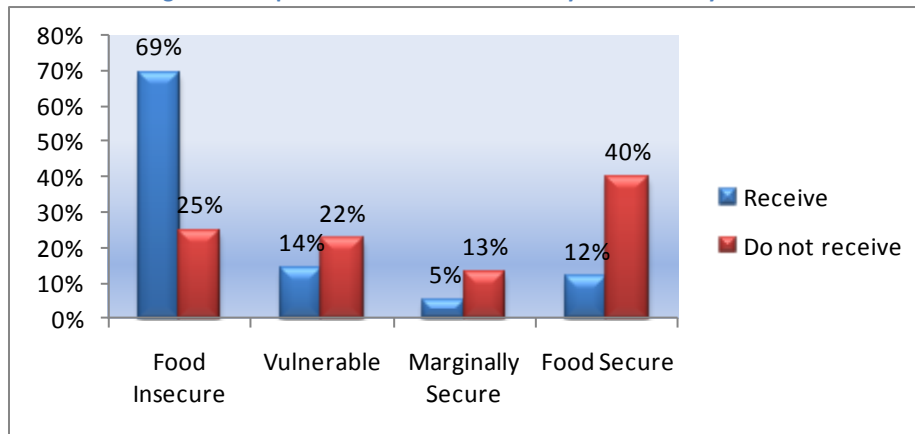
Figure 12: Comparison of Type of Employment



I. Targeting and Assistance.

The following Figure 15 refers to the percentage of those receiving assistance by food security levels indicating a relatively proportionate distribution of assistance. In Deir Al Balah governorate, the food insecure households seem to be well targeted with 69 percent of them who reported receiving assistance. However, 25 percent of households reported they do not receive assistance. Those food insecure households who reported receiving assistance appears to have remained food insecure.⁵

Figure 13: Reported Assistance Received by Food Security Levels



⁵ 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.