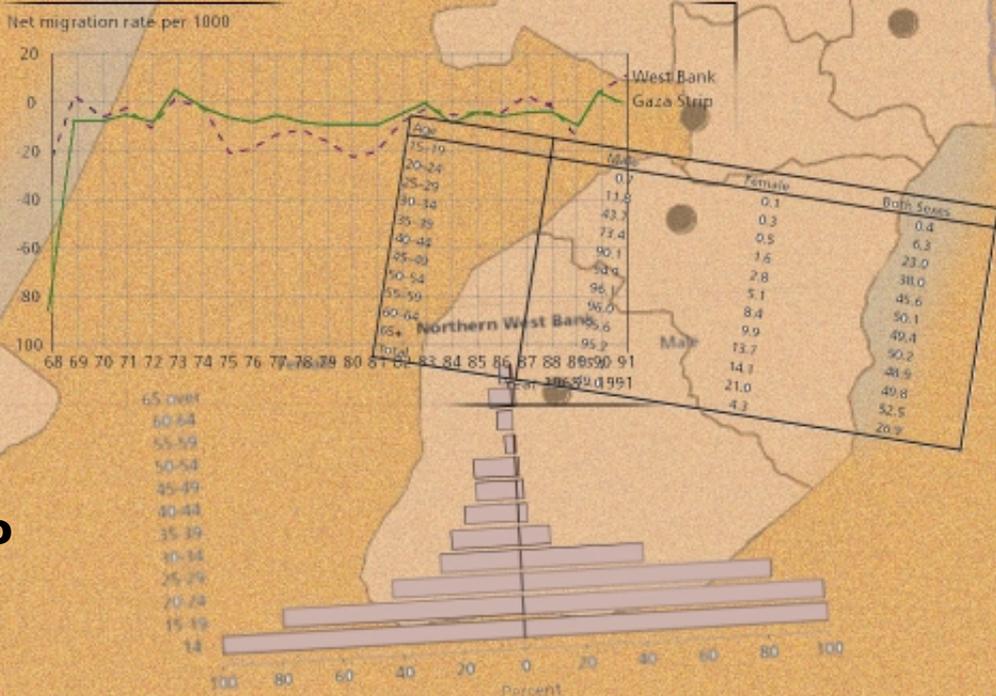Jon Pedersen, Sara Randall and
Marwan Khawaja (eds.)

Growing Fast
The Palestinian Population in the West Bank and Gaza Strip

Fafo

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Contents

Preface

The Demographic Survey of the West Bank and Gaza Strip was one of the first large scale surveys carried out by the Palestinian Central Bureau of Statistics (PCBS). Conceived as early as 1993, and fielded in 1995, it provided basic demographic indicators at a time when no credible such information existed. The many tabulation reports that have been published have provided planners and scholars with invaluable information on the state and development of the population of Palestine. The survey, through its meticulous attention to detail and proper field work procedures also helped set the standards that PCBS has since pursued.

The survey was carried out as a cooperative effort between PCBS and Fafo, and has been one of the central activities in the collaboration between the two institutions. The European commission financed the project through two grants, one to PCBS and one to Fafo, and we would like to express our deepest gratitude for the Commission's generosity.

It is a great pleasure to be able to present the analytical report from the survey. The analysis contained in this report tells us much about the state and recent development of the Palestinian population within the West Bank and the Gaza Strip. It shows the force of the demographic momentum: even though there are signs that the exceptionally high fertility of the West Bank and Gaza Strip may be declining, the age structure and (comparatively) low mortality levels provides for a very rapid population growth in the years to come.

The report also demonstrates the need for a regional perspective on Palestinian demography: there are differences between the West Bank and the Gaza Strip; and also between the districts of the West Bank. Thus, fertility in the Gaza Strip is generally higher than in the West Bank and the signs of a decline is much more pronounced in the West Bank than in the Gaza Strip. However, although the levels are different, the mechanisms of fertility change appears similar, with the age of marriage playing a pivotal role in the determination of the number of children to which a woman in Palestine give birth. Thus, the areas, especially in the northern parts of the West Bank where marriage ages are higher than elsewhere have lower fertility. Between married couples there are few differences in fertility, and variables like education or socio-economic status have surprisingly small effects.

The survey also raises issues of concern for the policy maker: The general one of rapid population growth has long been recognized. But the survey also indicates that while the Palestinians of the West Bank and Gaza Strip has low infant and child mortality levels compared to the level of fertility, the positive trend of reduced mortality appears to have stagnated in the early 1990ies.

We trust that scholars and policy makers will find material of interest in this report. We would like to take this opportunity to thank the many people who have worked on the demographic survey within PCBS and Fafo: the Project Director Marwan Khawaja and deputy Project Director Inaya Haj Dawoud at PCBS, and, at Fafo, Liv Jorunn Stokke and later Jon Pedersen. The latter also assumed the responsibility to supervise the scientific quality in Fafo.

Oslo and Ramallah, February 2001

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Acknowledgements

The editors would like to recognize that many people have contributed to make the Demographic Survey and this report possible. The survey was the brainchild of Hassan Abu Libdeh, now head of PCBS. In 1993 he had already been working in the field of Palestinian population statistics for several years, he knew the limits of understanding that could be achieved with the information available at the time and he recognized a need for a survey that should serve as a baseline for the understanding of the Palestinian demography. In his view, the survey should also be something more: it should also provide indicators on a regional level within the West Bank and Gaza.

In the endeavor to make the survey reality Hassan Abu Libdeh was assisted by several persons at Fafo: Geir O. Pedersen, the then head of Fafo's international division and Research Director Jon Hanssen-Bauer (the present head of Fafo Institute for Applied International Studies) helped create the necessary organizational frameworks.

West Bank and Gaza Strip

Jenin

Tulkaram

Nablus

Jordan River

Mediterranean sea

Jordan

Ramallah

Jericho

Israel

Jerusalem

Bethlehem

Hebron

Gaza

20   0   20   40 **Kilometers**
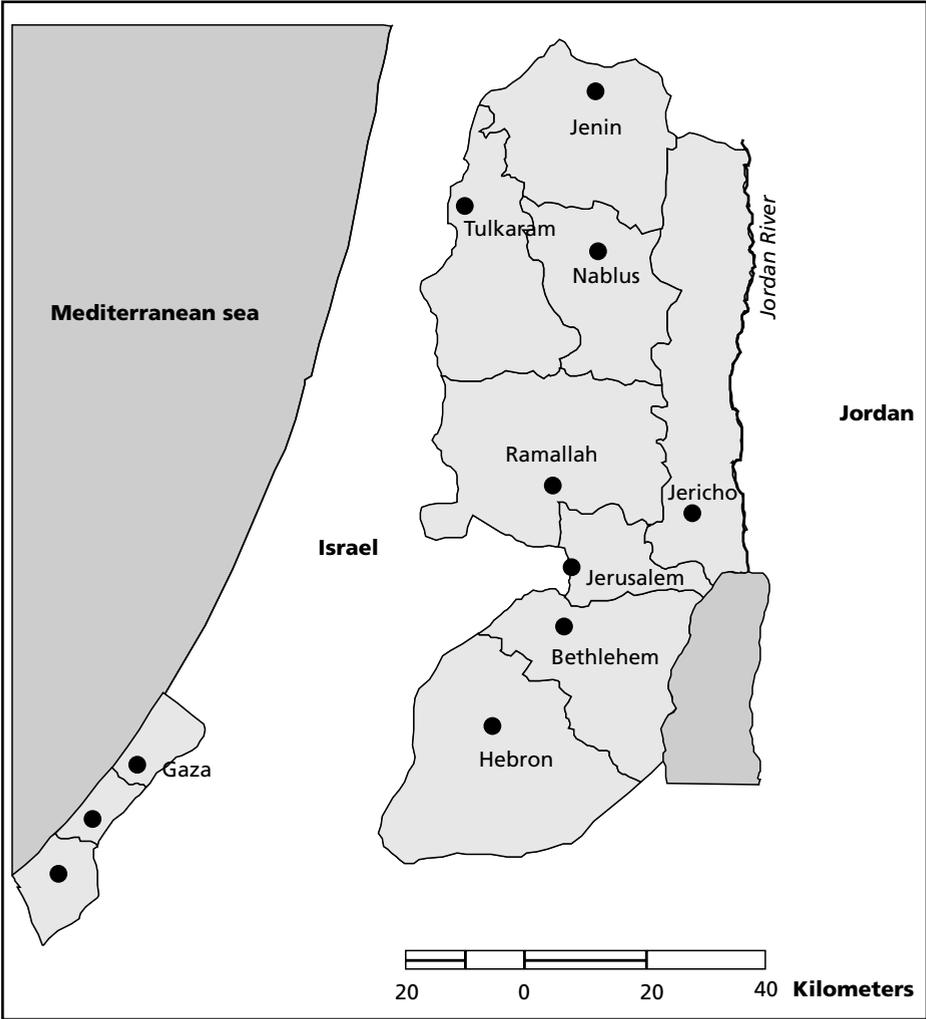
Introduction

Jon Pedersen

The demography of the West Bank and Gaza Strip holds considerable interest. The Gaza Strip is one of the densest populated areas of the world, and the rapid increase of population poses difficult challenges for developing a sustainable economy. The shift of demographic balance that results from the increase of the Palestinian population in the West Bank and Gaza Strip concerns Palestinian and Israeli politicians alike. The characteristics of the population and its dynamics also raise a number of questions for the population itself, NGOs, planners and the international community and others engaged in the search for solutions to issues in public health, supply of infrastructure or social services in the territories.

This book attempts to illuminate some of the issues. It is based on the results of the Demographic Survey of the Occupied Palestinian Territories (DSOPT), carried out by the Palestinian Central Bureau of Statistics (PCBS) together with Fafo in 1995. The survey covered approximately 15,000 households, recorded basic demographic information for 110,574 household members, 25,452 women aged 14-54 as well as the details of their birth histories, comprising 78,490 births. The households interviewed were selected through a probability sample, so the results may be considered representative of the population of the West Bank and Gaza Strip. The survey covered all the districts of the West Bank and Gaza Strip as they were defined by the PCBS at the time[1] (see map, left), but it excludes Israeli settlements within that area.

The data collected in the survey shed a comprehensive light on the demography of the West Bank and Gaza Strip. The main bodies of data and results have already been disseminated in a series of tabulation reports from PCBS. The task here is to analyze in more detail various aspects of Palestinian population characteristics and dynamics bringing them together in a coherent and integrated form.

For the impatient reader, it is perhaps useful to provide a summary of some of the main findings of the survey:

1. Fertility remains high in both the West Bank and Gaza, with a total fertility rate of 5.8 in the West Bank, and 7.8 in the Gaza Strip. There is little evidence of

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[1] District boundaries, especially in the West Bank, have gone through several changes throughout the years, reflecting the various administrations that have controlled the area.

fertility decline in the Gaza Strip. Recently there has been a moderate reduction in fertility in the West Bank.

2. Marital fertility is very high in both areas, at around 10. Thus, it is largely differences in marriage patterns that explain differences in fertility between areas.

3. A corollary of the high fertility is extremely short birth intervals, which are associated with increased risk of death for the children concerned.

4. Overall age at first marriage has increased over recent decades although in the last few years there is a slight decline. A substantial and increasing proportion of women do not marry — a phenomenon more marked in the West Bank than Gaza.

5. Marriages between close kin are widespread, and there are few signs of any reduction in their frequency in recent years.

6. Mortality is low with a life expectancy at birth of around 73 years for females and 69 years for males. The West Bank and Gaza Strip have lower mortality than many other Arab countries.

7. Maternal mortality of 74 deaths per 100,000 births is moderate for the level of economic development, and among the lowest in the region.

In order to interpret these findings they must be put into the context of the demographic characteristics of the Arab Middle East.

High fertility and low mortality

The first and most striking feature of the Arab Middle East is that of high fertility. Indeed some of the highest total fertility rates in the world are found in the Middle East. The Gaza figures, and also the 1991/92 DHS estimate for Yemen (both with total fertility rate (TFR) of 7.8), are cases in point. Yemen however is very atypical for the region because its economy is far less modernized. At the same time, a fertility transition is undoubtedly underway in most countries. In some, such as Lebanon and Tunis, the decline in fertility is quite advanced. Countries that formerly were late to enter a decline, such as Jordan, now is experiencing a rapid fall. A few exceptions stand out, such as those of Yemen, Oman and the Gaza Strip, and to a lesser extent Saudi Arabia and the West Bank.

A second feature of the demographic picture of the Middle East that becomes striking in the context of the high fertility is the low mortality rates. Indeed, they

are at levels that can be compared to Europe in the 1950s or 1970s or somewhat lower than most post Soviet block countries today, but higher than for the Russian Federation. This parallels the general decline in infant mortality rates that the Middle East has experienced during the last 30 years. Although the starting points were often similar to African cases, in general the decline has been much more substantial in the Middle East.

Thus, the conjunction of fertility and mortality reveals populations with very low mortality levels relative to their fertility (Figure 1). It has often been pointed out that a major difference between the European and the current Third World demographic transitions is the size of the gap between the mortality and fertility rates, leading to much higher growth rates in the Third World than was ever observed during the European transition. The Arab Middle East represents an extreme of this difference, with the Palestinians of the Gaza Strip perhaps as *the* extreme. Palestinians thus represent a challenge for those who hold that fertility will decline once mortality rates are reduced.

Figure 1 Child Mortality and Total Fertility Rates
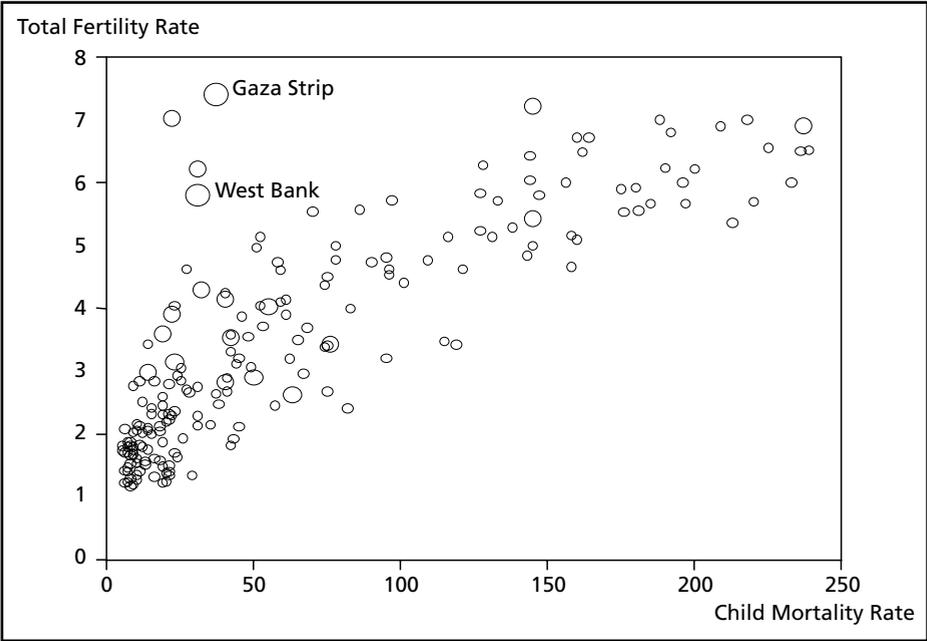
Large circles: West Bank and Gaza Strip, medium circles: Arab countries, small circles: other countries.

Source: World Bank 1997

Fertility: High and with few differences, especially within marriage

For all students of regional demography it is tempting to believe that the region of interest exhibits its own particular pattern of fertility decline. Caldwell et al. (1992) contrast the Asian and European patterns with the African by pointing out that the Asian and European patterns were characterized by a low teenage fertility at the outset, because of strong norms against it. Subsequently, the fertility decline took place amongst women of increasing age, and the major declines were among women nearing the end of their reproductive lives. This resulted in a post-transition-pattern of few, closely spaced children comparatively early. The African pattern, on the other hand, is characterized by early marriage, high teenage fertility, and long spacing between births. Some African countries, such as Zimbabwe, appear to maintain that pattern during the transition, so that the decline in age-specific fertility rates is fairly even over the whole age span, retaining long birth spacing (Caldwell et al. 1992).

One might expect that the Middle Eastern fertility decline would follow an Asian/European pattern rather than the African one. Norms against pre-marital sexual activity are strong in the Middle East. In Jordan, and also in the West Bank and Gaza Strip, for example, murders of women by their father or brother because of illicit sexual relations are common enough to be recognized as a social problem. Nevertheless some countries, such as Jordan or Egypt, show declines, which are fairly evenly spread over the reproductive age range (Courbage 1994b), and Yemen shows similar urban-rural differentials. One might argue that an overall reduction is the only way a fertility decline *can* happen in the extremely high fertility Middle-Eastern countries, since the fertility levels at the onset of transition are so much higher than they ever were in Europe or in many Asian countries.

There are also differences between the various Arab countries. Some exhibit the moderately early median age at marriage for women of around 20-21 years. This is the case for Yemen, Jordan, Egypt, the West Bank and Gaza Strip and Oman whereas women in Bahrain and Qatar have median age at marriage of 24-25 years and in the Mahgreb even higher (Courbage 1994a). Rashad, in a recent paper, points out that no Arab country has the really young marriage ages characteristic of many African countries (Rashad 1997).

Marriage in the West Bank and Gaza Strip is somewhat different from the other countries, in that some women do not marry. Especially in the West Bank, a substantial proportion of women remains unmarried at age 40. In parts of the West Bank, as many as 17 percent of the women aged 35-39 has never been married. This appears to be one of the principal brakes on fertility in the West Bank. It is not clear why some women do not marry. The hypothesis that stands out is that the labor

migration of men creates a lack of men of the right age. However, in neighboring Jordan which is also marked by labor migration and where about half of the population is Palestinian, nearly all women marry. In the West Bank and Gaza Strip, celibacy is probably also related to education, in that women with secondary education are much less likely to marry than others.

In some Arab countries, but not all, there is a strong negative association between female education and fertility. In Algeria, for instance, women with no education had a TFR of 5.3, while those with primary school had 3.4. Similar measures for Syria (1990-93) were 5.3 and 3.8. Such figures are especially interesting if we consider the age distribution of female education in the West Bank and Gaza Strip. Today, even with the current problems in the West Bank and Gaza Strip, there is almost universal current school attendance and high completion rates of schooling for both sexes. Women aged 20-24 had on average 10 years of schooling and only two percent had never attended school; those aged 50-54 had an average of 3 years of schooling and 58 percent had never attended school. Thus, with a strong association between education and fertility the potential for fertility decrease is very large.

But the West Bank and Gaza Strip do not exhibit the strong negative association between education and fertility mentioned above. Rather, the data from the West Bank and Gaza Strip illustrate a feature of the Middle Eastern fertility transition and education that is important to keep in mind. What appears to happen is that increased female education influences fertility later than one would expect. In Syria, for instance, although the number of educated women increased 9-fold between 1960 and 1990, nothing much happened to the fertility rates before the mideighties (Courbage 1994a).

In the West Bank and Gaza Strip, although there is an association between fertility and education, most of the association disappears when age at marriage, and the fact that some women do not marry, is considered. Marital fertility rates for women with different education are quite similar. When a woman marries, she is likely to get about 10 children on average, regardless of her education and most other characteristics. Thus, the number of children a woman gets is to a large extent determined by the timing of her marriage: if she marries early, she will get many children, and fewer if she marries late.

Another finding of the DSOPT is that fertility is not necessarily highest for those with least education. Rather, in the Gaza Strip we find that women with primary education have substantially higher fertility levels than those with no education or incomplete primary. The effect is also present, it seems, in the West Bank in that there are no differential between the two groups. The finding is by no means unique, but its explanation is somewhat elusive.

Three linked economic factors are important in the demographic picture of the Middle East. These are the extremely low labor force participation of women, the high proportion of the labor force employed in wage labor and the heavy dependence on remittances. The economies of the region are basically modern in the sense that agriculture and family farms comprise a comparatively small part of the economy coupled with the fact that wage labor outside the home is very important. Remittances and other forms of non-labor income that subsidizes households are substantial. There is a preference (at least among men) that women should stay at home. Together, these factors create a situation of very low labor force participation among females. The West Bank and Gaza Strip represent some of the extremes in this regard, with a female labor force participation rate of around 13 percent and 8 percent respectively (Pedersen and Hooper 1998:81). The women who are in the labor force are socially marginal such as women heads of households, divorced or separated, or professionals in well paid jobs. This picture may be changing as the case of Syria shows.

Courbage (1994b) suggests that the decline of fertility in Syria is linked to the economic hardship in recent years. One could venture the hypothesis that a fertility decline in the West Bank or Gaza Strip may similarly come about as a result of a "transition of poverty". The economy of the West Bank and Gaza Strip has been such that, until recently, a family could live off the income of one person. It was therefore possible to live up to cultural ideals of keeping the women at home. The steady deterioration of the economy since 1987 (see, Pedersen and Hooper 1998) may force women into the labor market, and the classic fertility differentials based on labor market participation will become a driving force in a fertility decline. As Courbage (1994b:146) states about Syria: "It took a serious economic recession for fertility to decrease in Syria. Educating women without integrating them into the job market has little effect on fertility". An interesting comparison to the West Bank and Gaza Strip is Saudi Arabia. That country exhibits similar characteristics, but on a rather different economic level. Here too, fertility has remained high, labor force participation of women is very low, and the oil-based national and household economy is such that it is possible to maintain cultural norms of keeping women at home.

That there is a clear association between female labor force participation and low fertility in the West Bank and Gaza Strip is quite clear from the DSOPT. However, it is not clear that poverty plays a role in the increase of labor force participation rates. Rather, it is the well-educated and more well-off women who appear to have the higher participation rates (Pedersen 1999).

It is difficult to discuss the role of women in the context of Middle Eastern demography without referring to Islam. There are basically two positions. The first is that Islam must be seen as pro-natalist, partly in principle and partly because the

household and labor force adaptations described above must be seen in the context of the generally low status ascribed to women in Islam. Since Islam curtails female autonomy, and control over fertility is partly about women's ability to take independent decisions as regards their number of children, one may, expect, the argument goes, that Islam leads to high fertility.

The other position is that the first is basically an Orientalist one, that reduces a complex reality to an idealized reversal of western rationality, without considering the diversity of the cultural and societal forms in question (Said 1978). Of course, when all the societies in question are predominantly Muslim and are included here because of that characteristic, it becomes poor logic to ascribe their other characteristics to Islam.

In any case, as Obermeyer (1992) points out, a reading of selected passages of the Koran to substantiate a particular Muslim view on demographic issues, is at best fairly suspect scholarship in view of the range of traditions and views present within the Muslim world. An interesting example is that of Iran where the clerics were pro-natalist for a period after the Islamic revolution and immediately following the war with Iraq, but soon changed their attitude in favor of family planning. It should also be remembered that, compared to many other countries in the Middle East, the West Bank and Gaza Strip must be considered quite secular, in spite of the recent rise of Islamic "fundamentalism".

It is on the above background that one must read the DSOPT finding that shows the fertility of Christians to be much lower than that of Muslims. The survey cannot answer the question of whether this is due to religion, or to differences in other socioeconomic characteristics between the two groups. Most likely, it is closely related to the generally higher educational levels of Christians compared to Muslims in the West Bank and Gaza Strip. In terms of impact on overall fertility, the importance of religious differences is small, because the Christians comprise a very small, and geographically clustered, group.

It is also problematic to discuss the demography of Palestinians without reference to the fact that they are Palestinians and thus affected by the Israeli-Palestinian conflict.

In general, the DSOPT does not demonstrate large differences between refugees and non-refugees in terms of demographic behavior or outcomes. For example, neither infant mortality nor fertility is very different between the two groups. However, one issue merits special consideration, given the interest that surrounds it. This is the question of political fertility, i.e. that people try to have many children in order to increase their numerical strength. It has loomed large in discussions of Palestinian demography and has certainly influenced Israeli discourse and politics on the topic. For instance, Israeli politicians who have wanted territorial compromises with the Palestinians have considered the situation which would arise if the comparatively

large populations of Gaza and the West Bank were to be permanently included in Israel and be given democratic rights alongside Jews (Tessler 1994:469-472). On the more conservative side of Israeli politics, the minister of communication in the Likud government in 1982 stated, "Don't worry about the demographic density of the Arabs. When I was born in Petah Tikvah, we were entirely surrounded by Arab villages. They have all since disappeared" (cited in Tessler 1994:548). On the other side of the conflict a leading Hamas member and specialist in reproductive medicine, Moustapha al-Faraouné, stated in 1992 that he "…helped his people to procreate so that we will not disappear under the flood of Jewish immigration. Palestinians and Israelis, we are engaged in a demographic war that does not know mercy." (AFP news, cited in Courbage 1994b: 729). Data on the reality of this "fertility war" are hard to come by, and some students discount it. Maswada (1994) holds that there is no indication that political considerations motivate Palestinians in Syria in their fertility choices, and points out that the Palestinian fertility patterns appears to vary considerably.

As noted above, refugees and non-refugees within the West Bank and Gaza Strip do not differ appreciably in their fertility behavior. Accordingly, a theory of political fertility in this context would have to base itself on the overall level of fertility compared to both Israel and other Arab countries. The DSOPT indicates that this fertility is much higher than elsewhere, especially in the Gaza Strip. However, with the data available, it is difficult to substantiate the argument that political aspects alone are important.

This does not imply that fertility is totally unaffected by the political events of the West Bank and Gaza Strip. There does appear to be an effect of the Palestinian uprising, the Intifada, beginning in 1987, in that there is an increased probability of marriage in the years following the Intifada, with a concomitant decline in age at first marriage. This led to a slight increase in annual TFRs and a suggestion that the beginnings of a fertility decline were temporarily halted. Further data will be necessary to establish whether this decline has subsequently been revitalized. The Palestinian Census of 1997 suggests that this may indeed be so.

A corollary of the high fertility is very short birth intervals. While one might think that short birth intervals are a necessary feature of very high fertility, this is only to some extent so. Compared to other high fertility countries, such as Yemen or Mali, the women in the West Bank and Gaza Strip get their children with very little spacing. Thus 58 percent of the births are within 24 months of the previous one. This means that the Palestinian women get their children relatively soon after marriage, continue to get children at very short intervals, and then stop well before the menopause.

Mortality

As mentioned the mortality levels of the West Bank and Gaza Strip are quite low compared to developing countries. There are also few socioeconomic differentials in infant and child mortality, a fact that is most likely due to the large and competing supplies of health services provided by the various agents of the international community such as UNRWA and NGOs and by the Israeli Ministry of Health.

One characteristic of Middle Eastern population patterns that has been of some concern is that of higher mortality of girls compared to that of boys. Whilst the difference in most populations has not been as large as that seen in the northern part of the Indian peninsula, it was still significant. However, a corollary of the general decline in infant and child mortality rates is that the excess mortality of women has been substantially reduced since the 1960s. It still exists, however, and is most marked for girls between aged between one month and five years, according to Tabutin (1991) who based his analysis on data from Egypt, Morocco and Tunisia. Other observers suggest that the problem is one of the past (Courbage 1995). While earlier data for the Occupied Territories also suggest an excess mortality of female children, especially post-neonatal mortality, (Palestinian Bureau of Statistics 1994a:41), the DSOPT indicates that this excess female mortality has disappeared.

An issue related to child mortality and morbidity that has received recent attention from health workers in some countries (e.g. Jordan) is that of consanguineous marriages. In most Arab countries the number of consanguineous marriages is quite high, with about 30 percent of the marriages being between first and second cousins and around 20 percent with other relatives (Courbage 1995; Bittles 1994). The West Bank and Gaza Strip are no exception, and there is a high and stable frequency of kin marriage. This is associated with increased infant and child mortality, contributing to about 20 percent of the infant mortality.

Migration

Historically, the Palestinian populations of the West Bank and the Gaza Strip were created to a large extent by migration, or, rather: flight. The events of 1948 led to a large refugee community within the West Bank and Gaza Strip. Thus, refugees account for 29 percent of the West Bank population and 65 percent of the Gaza Strip population. One should note that in accordance with the usage of the United Nations agency charged with responsibility for Palestine refugees, UNRWA, the concept of refugee employed here includes not only first generation refugees, but

also all their descendants in the male line. The 1967 war led to a further displacement of the population, particularly from the West Bank across the Jordan River.

But the migration did not stop with the creation of the refugee community. Since 1967 the territories have been marked by a varying, but generally high, net out-migration, in some years reaching as much as 2 percent of the population. Many moves have been political, caused by real or perceived threat of persecution by Israeli authorities, but the vast majority of the moves have been for seeking work, education or marriage. Whatever its causes, today the migration shows itself in that as much as 57 percent of households in the West Bank and Gaza Strip have relatives abroad. The impact of migration is also visible in the age structure of the population. In particular, there are too few adult men compared to a population with stable fertility and mortality rates and no migration.

The migration patterns are, however, different between the West Bank and Gaza Strip. In general, the farther north one gets, the higher is the migration rate. This suggests that one reason for the differences in marriage patterns between the West Bank and the Gaza Strip is simply lack of men in the West Bank, and especially the Northern West Bank.

Population growth: doubling by 2010?

One question that is posed by many, is the speed of the growth of the population. While we have discussed this topic elsewhere (Khawaja 1999; Pedersen & Hooper 1998) some points should be made here. The Palestinian Census of 1997 found a population of the West Bank and Gaza Strip of 2,896,000. This compares to a population of 1,035,300 that the Israelis found at the end of 1967 following their occupation of the West Bank and Gaza Strip. The average growth rate of 3.4 percent during the thirty years following the occupation may appear surprisingly small given the mortality and fertility levels documented in this report, but is explained by a large out-flux of people during most of the period.

The demographic picture of the West Bank and Gaza Strip is somewhat different than it was. This shows itself in all the three factors of population growth: migration, fertility and mortality. First, as regards migration, the opportunities for labor migration to the Gulf are less than prior to the Gulf war of 1991, although it appears that the net migration has been negative also since 1993. Moreover, a settlement between Israel and the PLO may facilitate large-scale migration into the West Bank and Gaza Strip.

Secondly. as noted above, there is evidence that fertility may be declining. The 1997 Census showed, for example, a Gaza Strip TFR of 6.9 compared to the

DSOPT one of 7.8. The difference in TFRs of nearly one child in about 4 years[2] is certainly possible and would indicate that the Gaza Strip has started to follow the rapid declines currently experienced by Syria and Jordan, and previously by Lebanon. Nevertheless, given the extreme stability up to now of the high fertility level in the Gaza Strip, more data are undoubtedly needed here.

The third factor in the change is the apparent slowing down of the reduction in mortality rates. While infant mortality showed a gradual decline after 1967, the decline appears to have been arrested in the late 1980s. This may be because a further decline would have been difficult without a major reorientation and reinvestment in the public health system, but may also be associated with the decline in per capita incomes that began to be the rule after 1993. Whatever the cause, the impact of this for future population growth is much less than that of migration and fertility decline.

Because of the changes in demographic behavior that are currently underway, it is difficult to arrive at secure long term predictions of the population sizes of the West Bank and Gaza Strip. Nevertheless, in the short term most of the cards already have been dealt. Because of the high fertility in the past, there is now a very large part of the population that is in or about to enter reproductive age, and even with a large fertility decline their children will contribute to high population growth. Thus, by 2010 one may expect a population in the West Bank and Gaza Strip of about 4.4 million, assuming a slow fertility decline (30 percent and 12 percent in the West Bank and Gaza, respectively). Even with a faster fertility decline (44 percent and 33 percent), the population will reach 4.2 million. Barring large-scale out- or in-migration, a larger or small population is not very likely.

[2] The mid point of the time location of the DSOPT estimate is 1992-1993 and the Census estimate has as its time location 1997 (although the census estimate also uses retrospective data to correct the estimate).

Chapter 1 Population structure

Ole Fredrik Ugland

1.1 Population growth and socioeconomic development

This chapter describes the age and sex structure of the Palestinian population in the Occupied Territories (OT), its regional distribution and its socioeconomic characteristics. Over the last decade, this population has maintained one of the highest fertility rates in the Arab world, and thus constitutes one of the most rapidly growing populations in this region. The current total fertility rate of 6.5 births per woman is significantly higher than that of 2.5 in Lebanon and 5.1 in Jordan, but is closer to the Syrian level of 6.0 (Bos et al. 1994). Recent projections estimate that a continuation of the present birth rate is likely to double the population by the year 2010 (PCBS 1994a; Abu-Libdeh et al. 1993:66–76).

Changes in the size and structure of the population have implications for the country's economic development and for social welfare. As a key factor in the development of the labor market and in the allocation of social services, they affect both the generation as well as the redistribution of the national income. A major effect of rapid natural population growth is a high welfare burden on the economically active population, which has to support increasing numbers of dependent children.

The persistence of high fertility along with improving socioeconomic development has led demographers to speak about a unique demographic regime in the Middle East, which is associated with cultural as well as structural conditions. High fertility is attributed to the traditional influence of Islam, the low status of women, or the influence of family loyalty promoting large families (Courbage 1995; 180; Barakat 1993:100; Obermeyer 1992). Rapid urbanization is connected to an expanding urban state apparatus, as well as general expectations in the population about urban affluence, which make young men and women seek education and careers away from their parents (Sobhi 1987). Uneven sex ratios and high dependency ratios may result from extensive out-migration of the economically active population (Fergany 1991). At the same time, structural changes may undermine traditional social relationships, roles and value orientations. Old patterns of marriage and divorce may be being slowly replaced. New relationships may develop

between the family and its society, transforming the family composition as well as reproductive behavior.

Although the exact relationship between these factors has been difficult to establish, theoretically as well as empirically, the circumstances and conditions under which population growth becomes a deterrent to socioeconomic development is a critical issue (Todaro 1994, Newell 1988:32–33). How is recent population growth in the Occupied Territories reflected in the current population structure? And conversely, what can the present population structure tell us about future population growth, and consequently about future demands for social services, jobs and general wellbeing among Palestinians?

In this chapter, we first describe the current age and sex composition of the population. Assuming that different areas of the Occupied Territories have different developmental and demographic trajectories, we then examine the population distribution across geographical regions. Population movements following political and military events call for further comparison of refugees and non-refugees. Next, an examination of dependency ratios as they relate to population structure is attempted. In the final section, we describe current educational levels and trends.

1.2 Age and sex distribution

The age distribution of a population reflects the history of births, deaths and migrations during the preceding century. Major periods of transition such as wars, famine and economic recession, or more general attitudinal variations in future pessimism or optimism, are often visible as changes in the size of successive age cohorts. The entire age distribution gives us basic information about the population's future growth potential.[1]

Conventional demographic transition theory prescribes a marked change in the age structure as a society moves from being "traditional" to "modern" and as high birth and death rates decline. While the pre-transitional situation typically produces a young population, the gradual reduction of mortality and fertility at first generates rapid population growth and a rejuvenation of the age structure. This is followed by a decline in population growth towards replacement level, an aging of the population, and a more rectangular age distribution (Caldwell 1991).

[1] Age mis-reporting is a problem in social surveys in developing countries, as people often do not know, or do not want to report, their exact age. As a result, respondents tend to report ages ending at 0 or 5. The Whipple's index, calculating the proportion of ages ending with these digits as compared to all ages reported, is 99 for this survey. The figure is at the borderline between "Highly" and "Fairly accurate" according to UN standards (UN 1983:304).

Three events stand out as crucial in the recent history of the Palestinian population in this respect, which are related to the three recent wars, dividing the history into four main periods (Abu-Libdeh et al. 1993: 37–38). The events affected the population's regional distribution, but might have also influenced its size and age composition within sub-regions of the territory.

Palestinians born prior to the 1947/48 war, under the British mandate period, were born into a traditional and mainly peasant society. Major events were new waves of Zionist immigrants, gradually acquiring a dominant economic position, and initiating a transformation of the traditional local economy, as well as a gradual economic and cultural opening towards the outside world. The foundation of the state of Israel on the former mandate area caused four in five Palestinians to leave the area as refugees. A second generation comprises those born between the 1947 and 1967 wars. A dual modernization process emerged, with Gaza and the West Bank rapidly lagging behind the modernizing Israeli economy. The birth of the third generation is marked by the 1967 war. The period is characterized by the reunification of Palestinians living in the former British mandate area, and the extension of the 1967 borders of East Jerusalem into the West Bank. The Intifada, starting in 1987, is one of the events associated with this generation. Another important experience is the frequent disruption of economic activities by strikes, curfews and periodic Israeli border closures, in addition to a general situation of political instability. Finally a fourth generation may be emerging, born after the Gulf War in 1991. Its birth has witnessed curfews, extended security checks, and economic deterioration due to restrictions on employment in Israel. Also, as the Gulf States expelled many Palestinian households, significant remittances were lost. But this generation might also be the first one enjoying a peace economy, with hitherto unknown effects on fertility and migration patterns.

While these historical events are expected to influence desires for children, their chances of surviving to old age, as well as the probability of migration, the direct affect on the population composition will be molded by the structural and cultural changes described above. Given the predominantly agrarian structure of the economy and general low levels of economic activity during the war periods, we might expect high birth levels to prevail.

Young population with male surplus

Figure 1.1 displays the population pyramid of the Palestinians in the OT by five-year age groups and sex, males to the left and females to the right. Respective generational cohort labels mark the major historic events.

There are four main features.

First, the pyramid has a broad base and a narrow top. The population in the OT shares the characteristic of many developing countries of a very young population, with nearly half under 15 years old, and similar proportions in childbearing ages, 15–49 years old.

Second, the systematic increases in cohort size are relatively regular[2] despite economic and institutional changes in the recent history of the area. This is particularly the case for females, and thus the irregularities in the male age distribution (e.g., the deficit of males aged 35–39) can almost certainly be attributed to out-migration. There is no obvious explanation for the large cohort 55–59 relative to the succeeding one aged 50–54 other than age mis-reporting. This is probably a function of age heaping when identity cards were distributed in 1967. Also a sub-conscious augmentation of women's ages may have been introduced by interviewers when a woman's age was uncertain, to avoid the necessity of administering the birth history questionnaire. Such phenomena are frequently observed in other surveys elsewhere.

Third, the "post-67 war" generation, alone, accounts for more than half of the total population. About 90 percent of the population did not experience the 1948 war. Thus, while the 1948 war had significant consequences for the current distribution and economic activities of the contemporary Palestinian population, the

Figure 1.1 Population by five-year age groups and gender
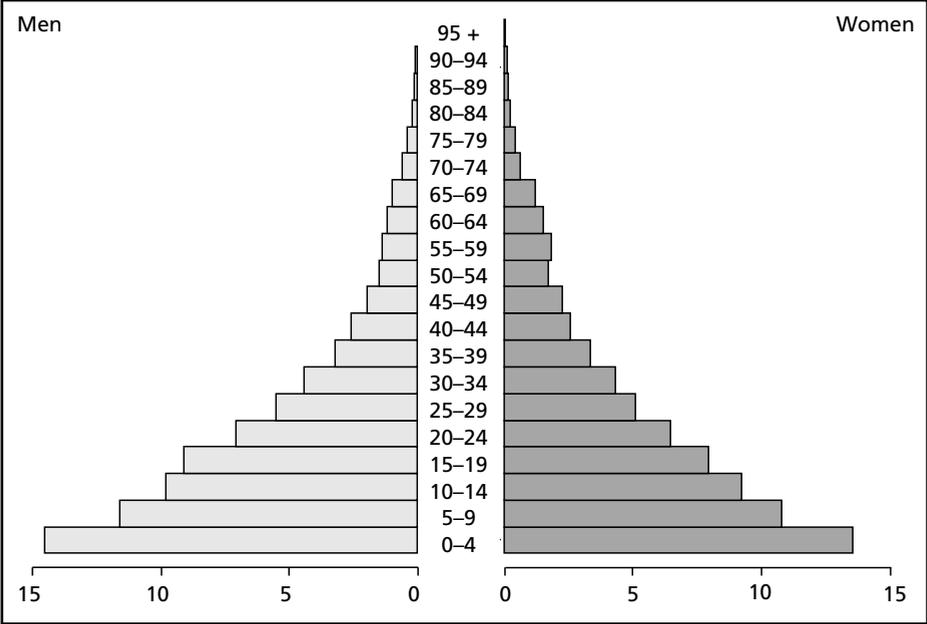
majority of Palestinians in the Occupied Territory were born in the area where they now live.

Fourth, there is a slight excess of males (51,1 percent) over females (48,9 percent), which varies by age (see below).

The young age structure demonstrates the momentum of population growth in this population. Even if fertility were to be reduced immediately to a TFR of 2 the population would continue to grow for several decades because of the increasing cohort sizes entering the reproductive years. Given that fertility is unlikely to decline very rapidly, this momentum will be maintained for years to come.

Younger population than in other Middle East Countries

A comparison of the age-sex structure of the Occupied Territories with neighboring Middle East populations shows a remarkable similarity with that of Syria, and little difference compared to Jordan (Figure 1.2). Only Lebanon has a smaller population base, which has had lower fertility for some time.

Figure 1.2 Estimated 1995 population by five-year age groups and sex in the OTs, Lebanon, Syria and Jordan
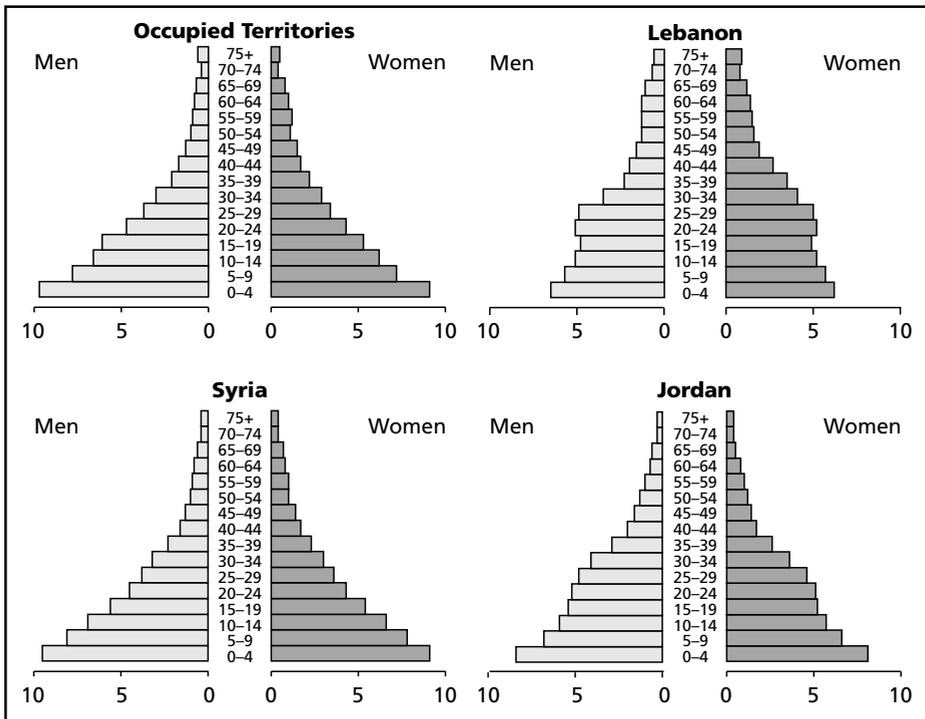
Source: Demographic Survey and World Bank (1995)

1.3 Regional disparities and urbanisation

Although rapid population growth is commonly regarded as a major demographic problem facing the OTs today, some would argue that the problem is not related to the size of the population as such, but rather to its distribution across space. Many regions of today's developing countries are in fact under-populated relative to their potential or available resources. Others have too many people largely due to urban concentrations. High growth rates, particularly in poor and rural areas, lead to an uneven population distribution, disproportional pressures on economic resources, and often rural-urban migration. Areas with heavy emigration may end up with high dependency ratios, whereas areas with significant immigration have young age structures. As a consequence, it has been argued that population policies should be aimed at providing a "normal" spatial distribution in terms of available land and other resources, rather than being directed at limitation of population growth rates as such (Todaro 1994:203; Sobhi 1987).

Higher population concentrations in Gaza than in the West Bank

Before examining the age and sex structure across localities we should take a closer look at the regional distribution itself. The OTs have been characterized by considerable differentials in population density, especially between the West Bank on the one hand and Gaza on the other, mainly as a consequence of relocation after the wars. At the same time, urban and rural distributions differ within the two regions, partly reflecting their different economic structures. Table 1.1 shows the population distribution across the four main geographical regions (the Northern, Central and Southern West Bank, and Gaza) and locality types.

Thirty-four percent of the population is located in Gaza and half is divided between northern and central West Bank. Thus, while the Gaza surface area accounts

Table 1.1 Population distribution by region and type of community. Percentage of total population (N/w=112015)

	District capital	Municipality	Large village	Small village	Refugee camp	Total
Northern West Bank	**5.8**	3.1	**13.0**	1.9	2.4	26.2
Central West Bank	5.1	2.7	**11.9**	2.1	2.5	24.2
Southern West Bank	4.2	2.6	**7.1**	1.3	0.7	15.8
Gaza Strip	**9.8**	**5.6**	5.4	-	**13.0**	33.8
Total	25.0	14.0	37.4	5.2	18.5	100.0

for about 6 percent of the total land area of the OTs[3], its relative share of the population is six times as high, resulting in a very high population density.

As for locality types, the survey distinguishes between district capitals, municipalities, large- and small villages, and refugee camps. It makes little sense to distinguish urban from rural places in the Occupied Territories because of the small distances between them, and also the ambiguous nature of refugee camps. Even if all villages are defined as rural, the Palestinian population is largely urban.

Table 1.1 demonstrates the particular residential characteristics of the regions. The distribution may be seen as a reflection of differing industrial structures in the respective areas (Tamari 1993:23). Typically the West Bank is a population scattered across large villages, with the three dominating urban areas of Nablus, Hebron and Jerusalem (the latter including Bethlehem and Ramallah). While the towns largely act as industrial- and service centers, the rural section reflects the domination of rainfed agriculture and small-holding peasants in this area. In contrast, Gaza is characterized by population concentration in the urban centers, reflecting the dominant position of Gaza City, Khan Younis and Rafah, in addition to a few villages, and the importance of irrigated farming and wage labor in this region. In both areas, refugee camps have a distinct imprint on the population distribution. In the West Bank, camp and non-camp residence constitutes a major social distinction. In Gaza, where a majority of the population is refugees, the distinction between camp and non-camp constitutes a significant overall population divide.

A distinct pattern emerges, as seen from the seven most prominent population concentrations (marked by bold characters in Table 1.1). Large villages dominate the West Bank whereas urban and refugee camp residence is more common in Gaza. In general, whilst a considerable proportion of the population today resides in large villages, this proportion declines from north to south.

Palestinian society is very urban compared to many other developing countries, a fact belied by its "traditional" population structure. The explanation may lie in the significant political events as well as in structural (e.g., land availability) and cultural factors.

Younger age composition in the South than in the North

In Figure 1.1 it was shown that the overall Occupied Territories age structure follows the common young, broad-based structure of many developing countries. Given the different historical experiences of the two main areas of the Gaza Strip and the West Bank, as well as their differing prospects for "modernization", some variation in the age-sex structure are expected

[3] That is 150 out of a total of 2,350 square miles according to the UN (1985:3)

Figure 1.3 Cumulative age distribution by main regions. Percentage of total population in respective areas
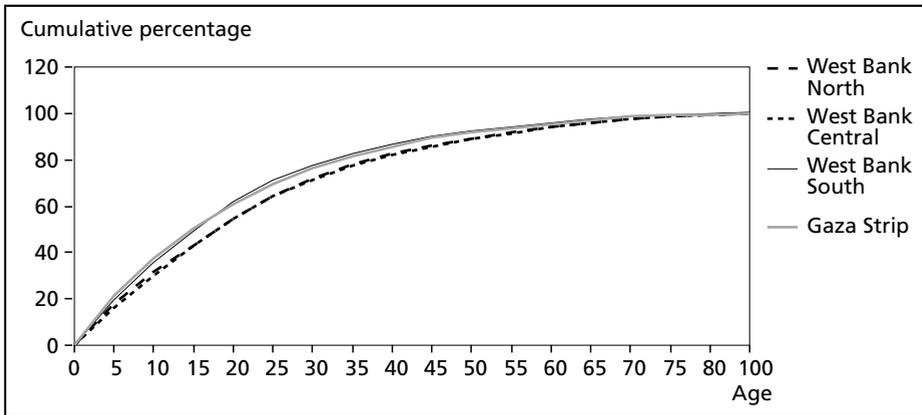
The age structures might be influenced both by fertility preferences and behavior and by different migration opportunities. Other examples from the region demonstrate the potential for neighboring populations to have totally different demographic regimes. Jews and Palestinians in Israel, for example, have contrasting population growth patterns, whereby the Israeli Jews have a rate three times slower, and consequently a much more rectangular age structure than their Palestinian counterparts (Blin and Fargues 1995:16; Bos et al. 1994:278). Are similar patterns visible also between the different regions of the OTs? Figure 1.3 displays cumulative age distributions for the four main geographical areas.[4]

There is a distinction between the northern regions of the North- and Central West Bank, and the southern regions of the South West Bank and the Gaza Strip with a younger age distribution in the latter

Similar age distributions across urban and rural areas

Due to the economic hardship faced in many refugee camps, and general expectations of urban affluence and employment opportunities, one might expect villages and camps to be left with a larger proportions of the very old, and possibly the very young as those in the labor force leave villages for urban employment. This hypothesis is, however, not supported by the data in Table 1.2, which shows the age composition of the various community types in the OTs.

Age structure differences by community type are minimal. Refugee camps have a larger post-Gulf war generation and towns/cities have more of the pre-1948 war

[4] The sex composition across age categories follows the same pattern as the overall trend, and is not displayed.

Table 1.2 Age composition by community type. Cumulative percentage of total population in respective regions

Membership	West Bank			Gaza Strip			Total		
			Both			Both			Both
category	Male	Female	Sexes	Male	Female	Sexes	Male	Female	Sexes
Head	27.1	2.7	15.2	23.6	1.7	12.8	25.9	2.4	14.4
Spouse of head	0.1	27.9	13.6	0.1	24.4	12.0	0.1	26.7	13.1
Child of head	65.4	54.8	60.2	63.9	52.4	58.2	64.9	54.0	59.6
Parent of head	0.5	2.9	1.6	0.7	3.4	2.0	0.6	3.0	1.8
Sibling of head	1.9	2.0	1.9	3.0	2.1	2.6	2.3	2.1	2.2
Son/Daughter-in-law	0.1	4.3	2.1	0.1	6.1	3.0	0.1	4.9	2.4
Grandchild	4.3	4.2	4.3	6.9	6.5	6.7	5.2	5.0	5.1
Other relative	0.6	1.1	0.9	1.8	3.3	2.5	1.0	1.8	1.4
Non-relative	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1
Total (n)	37954	36161	74115	19287	18617	37904	57241	54778	112019

generation. The post-1967 war generation which accounts for more than half of the population, has a similar weight in each area. But the similarities are still far more striking than the differences, and do not support any hypothesis of significant demographic changes stimulated by urbanisation.

Parallel sex ratios across age cohorts in the North and in the South

Figure 1.1 shows a slight male surplus among younger cohorts and a female surplus in middle- and older ages. This picture reflects the general observation that more boys than girls are born, and females tend to outlive males. Better working opportunities in the Gulf region might have led to a recent increase in international

Figure 1.4 Sex ratios by age and region
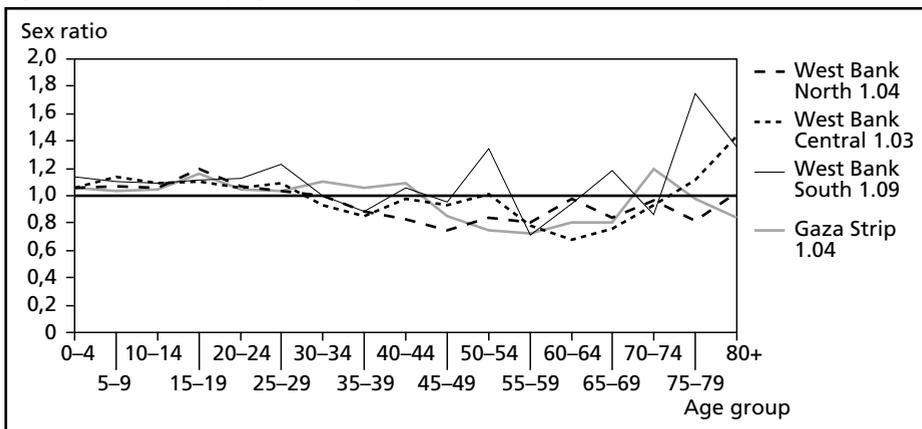
migration, although the return of migrants was significant following the 1991 Gulf War. Likewise, the economic and political situation in the Occupied Territories together with job opportunities and better living conditions prevailing outside, induce people to leave the OTs, especially Gaza (Abu-Libdeh et al. 1993:66–75). On the other hand, while one would expect rural-urban migration to be prominent due to the fixed land-labour factor, and the decline in agricultural activities as a consequence of Israeli land expropriation (UN 1985:4), the proximity between urban areas and their rural hinterland makes migration less frequent.

Figure 1.4 displays sex ratios for each age cohort, distinguishing between the four main geographical areas. The male surplus mentioned above, remains until age 30 in all four regions. After that age, in the West Bank a female surplus develops indicating that the three regions are affected by net male out-migration, especially in Northern West Bank. Gaza is different, with no visible male deficit until the cohorts of the late 40s. This runs counter to the hypothesis that high population density and accompanying difficult living conditions in Gaza would produce higher (male) out migration than in the other areas. In fact, out-migration from the West Bank has been higher than from Gaza since 1967 (ICBS 1993:758). The overall female surplus observed in the age cohorts 45–65 years old, is evident across the OTs. This is not new, and has been interpreted as a possible consequence of overrepresentation of males in labor-related migration during the 1970s (Abu-Libdeh et al. 1993:45). Another peculiarity is the surplus of old men observed in the Central and Southern regions of the West Bank. The magnitude of the surplus suggests a methodological rather than substantive interpretation.[5]

Male surplus in district capitals

Rural-urban migration has been common in many countries in the Middle East. People move to the cities in search for better economic opportunities. If such

Table 1.3 Sex ratios (ages 15–64) by main geographical areas

	District capital	Municipality	Large village	Small village	Refugee camp	Total
Northern West Bank	0.98	**1.06**	**1.06**	**1.17**	0.93	1.03
Central West Bank	0.98	0.92	1.01	1.02	0.99	0.99
Southern West Bank	**1.17**	1.01	**1.05**	1.00	0.98	**1.07**
Gaza Strip	**1.05**	**1.04**	1.01	-	1.01	1.03
Total	1.03	1.02	1.03	1.07	1.0	1.03

[5] Due to the low status of females, old women might have been simply "forgotten" in the enumeration of household members. The problem of age heaping at the oldest cohorts may also distort the sex ratio.

behavior also occurs in the OTs, we might expect differences to exist in the sex ratios among urban and rural areas. Are the villages left with an increasing female surplus, and the cities with an increasing male influx? Table 1.3 displays the sex ratio for the working age groups (15–64) in different residential areas.

There is a moderate male surplus in southern district capitals and a small male deficit in the West Bank refugee camps. The most significant contrast in the sex distribution is observed in the Northern West Bank, where small villages have a high sex ratio of 1.17, while refugee camps have a low ratio of 0.93. These two residential categories are however small in size, comprising only about 16.4 percent of the Northern West Bank population.

Overall, there is little to support the idea of a large stream of out-migration of working adult males from particular areas, although there might be a small flow of men out of refugee camps. This lack of net male internal migration may be a consequence of the very small areas involved. In the Gaza Strip, for example, all areas are within a commuting distance from Gaza City.

1.4 Refugee status

A major consequence of the 1948 war was a relocation of the population across the former mandate area, accompanied by a disruption of traditional social and economic structures. In 1995, two-fifths of the population are UNRWA refugees.[6] Consequently, we might expect marked demographic differences between the refugee population and resident population. Gaza especially experienced a mass influx of refugees from the coastal regions south of Jaffa following the 1948 war, largely relocated in the City of Gaza. The rest were settled in refugee camps and in scattered townships and villages (Tamari 1993:22). Although it is easy to hypothesise about the peculiar demographic characteristics (and misfortunes) of the refugee populations, such differences need first to be established empirically.

Most refugees in Gaza
The distribution of refugees follows clear-cut regional patterns, which is determined, in part, by the location of refugee camps.

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[6] An UNRWA refugee is a person who had normal residence in Palestine from 1 June 1946 to 15 May 1948, who lost his/her home and means of livelihood due to the conflict, who sought relief in a country with UNRWA relief, and/or who is a descendant through the male line of persons fulfilling these criteria.

Figure 1.5 Population by refugee status and region. Registered and non-registered refugees as percent of regional population
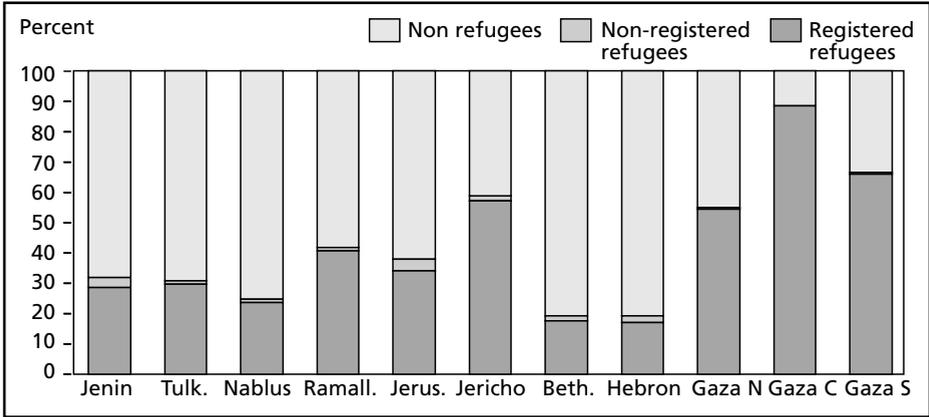
Overall, about 40 percent of Palestinians in the Occupied Territories are refugees (Figure 1.5), but they are not spread evenly over the territory. This is largely a consequence of the geographical patterns of relocation after the 1948 war. The highest proportion is found in Central and Southern Gaza, reflecting the large concentration of refugees in the Shati' and Rafah refugee camps, followed by Jericho in the West Bank and North Gaza. All these areas constitute "refugee enclaves". The same may also be said about Ramallah, although the refugee proportion there is slightly less than half the total population. These areas, especially Gaza, are contrasted with the northern West Bank and Bethlehem, where 30 percent of the population is refugees.

Many refugees live outside camps

To what degree is the distribution of refugees solely a reflection of the distribution of refugee camps?

Table 1.4 Distribution of refugees and non-refugees by habitat. Percentage of total population in respective categories

	Refugees	Non-refugees	Total
District capital	21.9	7.2	25.0
Municipality	12.7	14.9	14.0
Refugee camp	42.6	1.6	18.5
Large village	21.2	48.7	37.4
Small village	1.7	7.7	75.2
Total	100	100	100
N/w	46058	65848	111906

As shown in Table 1.4, nearly half the refugee population lives in refugee camps. The other half is more or less evenly distributed across large villages, district capitals and municipalities. The majority of non-refugees live in large villages with the remainder in urban areas. In other words, the residential situation of refugees is highly variable both in terms of physical environment and access to different services and opportunities. There is little reason, therefore, to expect demographic homogeneity.

1.5 Population structure and dependency ratios

Labor activity is determined by two factors: the number of people available is a society, and the propensity to take work among the population. The former is linked to the proportion of adults to dependent children and older people. The latter may depend on sex ratios.

The dependency ratio includes both old people and children as dependants. Older people as well as children are commonly referred to as a "dependency burden", in the sense that they are non-productive members of the society. The dependency ratio is an index of the active population (producers), relative to those who have to be provided for (consumers).[7] In a "modern" economy, labor force participation is mainly confined to the young and middle aged (age 15–64), while earlier entry and postponement of retirement is common indicators of under-development. The sexual segregation of the labor market may affect the relation between producers and consumers. In traditional economies females have fulfilled the former role although their participation in informal and household work has often been underestimated.[8] We can expect increasing proportions of females to engage in the formal labor markets during modernization.

[7] It may be argued that the mainly Western concept of dependency ratios does not fit with cultural realities in the Middle East, largely due to the strong impact of the family. The concept of family in Arabic ('aila' or 'usra') itself reflects mutual commitments and means, "to support". While the father's role is defined as that of provider, and the mother as that of homemaker, children change from being dependents ('iyal') to supporters ('sanad') once their parents reach old age. Consequently, while the aggregate distribution of consumers and producers in the population will be more or less the same, the transition between the two categories is different (Barakat 1993:98).

[8] See, for example, Anker and Anker (1986).

One producer for each consumer

Demographic growth in the OTs, together with constraints in the agricultural sector linked to the growing scarcity of water, and to a structural transformation away from labor generating sectors, has resulted in low employment growth. Closely related to employment generation is the question of poverty and unequal income distribution, and the difficulty of responding to the challenge of the new world economic order in terms of the market mechanism and in terms of the regionalization and liberalization of international trade and capital. With the peace agreement, it has been questioned whether the Middle East may be able to make profit of its most abundant and at the same time least utilized resource, the labor force (Blin and Fargues 1995:17; Richards and Waterbury 1990). Instead of exporting labor and living from remittances to compensate for low wages (those who leave are often the most qualified), a major objective will be to change the population burden into productive use.

Predictably, the population displays a *large youth dependency ratio* – a large proportion of young consumers. About 47 percent of the population is below 15 years of age, whereas the proportion of old consumers (aged 65+) is only 3.4 percent of the total. The age groups of the economically active population thus make up half the total population. In other words, the consumers consist almost entirely of children in the OTs, reflecting the persistently high natural growth rates during the last decades.

This pattern is typical for developing nations, where the active proportion of the population has to support almost twice as many children as in the richer countries (UDC 1995) — but a lot less old people. Again in comparison to neighboring Arab countries, we find the dependency ratio of 101.3 significantly higher than

Table 1.5 Dependency ratios by region and type of community

	West Bank North	West Bank Central	West Bank South	Gaza	Total
Community type					
District capital	77.0	74.7	101.1	**111.8**	.93
Municipality	85.4	72.3	**115.2**	**112.2**	.98
Large village	96.4	93.3	**109.1**	**132.8**	1.02
Small village	101.0	**102.6**	**123.3**	-	**1.07**
Refugee camp	81.1	**105.8**	98.4	**107.4**	1.03
Refugee status					
Refugee	90.5	87.6	**108.5**	**108.7**	102.6
Non-refugee	86.2	88.8	**108.3**	**121.4**	100.1
Total	89.3	88.3	**108.4**	**113.2**	

the estimated ratios of 66,1 and 78,6 in Lebanon and Jordan, respectively, while slightly lower than the rate of 103,7 in Syria.[9]

Although we defined the working population roughly by age, many of those in the age group 15–64 years will not actually be economically active. Some people will be physically unfit for labor, are prevented from engaging in labor, or simply do not wish to work. Changing patterns of labor force participation may significantly modify the dependency burden.

Dependency ratios highest in the south and amongst Gaza non-refugees

The different age structures by region will, of course, have implications for the dependency burden. Although differences in age structure may seem small, their implications become more noticeable when translated into dependency ratios (see, Table 1.5).

The dependency ratio declines steadily as one moves north through the Occupied Territories. It also differs according to community type. The highest consumer surplus is observed in Gaza villages, and the largest producer surplus is seen in the district capitals of the West Bank. Overall, there is little difference in the dependency ratio by refugee status with the regional patterns much more pronounced.

Table 1.6 Indices of educational achievement by age and sex

Age group	Average number of years of schooling		Percent never attended school		Percent illiterate	
	Male	Female	Male	Female	Male	Female
15–19	9.0	9.0	1.3	1.2	3.4	2.5
20–24	10.1	9.8	1.3	2.4	3.2	4.3
25–29	10.2	9.4	2.1	4.3	4.1	6.8
30–34	10.4	8.9	1.7	5.6	3.5	8.8
35–39	9.9	7.6	2.6	11.5	4.8	14.4
40–44	9.8	6.9	2.9	18.1	5.7	21.0
45–49	9.0	4.9	6.7	38.8	8.2	41.3
50–54	7.6	3.1	13.5	58.2	14.4	59.8
55–59	5.5	1.5	28.2	77.3	26.9	77.7
60–64	4.0	0.9	37.1	84.8	33.3	83.4
65–69	3.4	1.0	39.1	83.6	33.3	83.3
70–74	3.0	0.7	47.8	87.0	40.7	85.9
75–79	2.3	0.4	56.9	92.9	46.3	93.6
80–84	1.8	0.5	66.2	91.6	55.5	92.1

[9] Estimates are based on projected populations from figure 2.2.

1.6 Education

Formal education has been observed to be an important determinant of demographic change in almost every population, especially during periods of rapid socioeconomic changes. Thus, any attempt to understand the dynamics of the OT populations must take into account contemporary levels and patterns of educational achievement.

Table 1.6 reports various different aspects of education and ability to access written material: the average years of schooling, the percent who never attend school and the percent illiterate.

Currently, there is almost universal school attendance, with little differences between girls and boys either in attendance rates or length of schooling. More than 95 percent of both girls and boys have attended school over the last two decades with concomitant high literacy rates. For those older than 35 years, however, there are substantial differences both by gender and over time. Prolonged schooling is relatively recent for girls, with over three quarters of women over 55 years of age having never been to school, whereas men of those age groups had much higher attendance levels. It is interesting that for older women, the percentage illiterate is close to the percentage of those who never attended school, suggesting that there was little acquisition of literacy skills at home. The same is not true for older men, where clearly school attendance was not a prerequisite for the acquisition of literacy – presumably they were taught to read and write the Koran at home, or 'Kuttab', or both.

Refugees have higher levels of education than non-refugees

Refugee status has a strong influence both on achieving secondary education (Figure 1.6), and on school attendance in the past (Figure 1.7). From Figure 1.7, it can be seen that although there was a clear gender divide in access to schooling, older refugee women have higher levels of school attendance than do their non-refugee age mates. The same is true of men, and the different trajectories start for those who would have been coming up to school age at the time of the 1948 war. The rapid increase in female refugees' school attendance came at the same time. Patterns of secondary school attendance were low but increasing throughout the Occupied Territories before the 1948 war. After the 1948 war, secondary school attendance increased much more rapidly for both refugee girls and boys, compared to the non-refugee population. These differences remain today, with 10 percent more refugee women finishing secondary school than non-refugee women in the 20–24 age cohort and about 5 percent more refugee men. This suggests that, far from being socio-economically disadvantaged, refugee status has improved the educational opportunities, presumably through the availability of UNWRA schools. High levels

of educational achievement in refugee camps are confirmed in Figure 1.8, showing that since the 1948 war the proportion of males finishing secondary school has been as high in the refugee camps as in the urban areas, with achievements for those in villages being somewhat lower. This may, of course, be an effect of selective migration, whereby the well educated from the villages move to the towns. However, villagers are unlikely to move to refugee camps, suggesting that without selection the educational achievement of refugees camps dwellers would be even higher.

1.7 Conclusion

Acceleration of mortality decline and different timing of fertility declines have generated considerable heterogeneity in demographic profiles in the Middle East, with some emphasizing the diversity of paths taken by different countries (Obermeyer 1995:1). The rapid population growth in the OTs puts this population at one end of the spectrum, and this growth may itself put pressure on the current labor market and potential for income generating activities in the national economy as well as on the provision and allocation of economic outputs.

Population growth transforms the population structure
Fertility, mortality and migration together account for population growth, and shape the structure of the population in distinct ways. This young population reflects persistently high birth rates throughout the last decades, but the dramatic historic events in the region have not left any marked imprints on the overall age structure. It could be argued, however, that such events are a major cause of the continued high fertility and thus of the overall age structure. The regional distribution of the population is a central issue, with close to four in ten Palestinians in the OTs in Gaza, with high population concentrations in Gaza City and in the refugee camps. Internal migration is less prominent than in many other developing countries, possibly due to the small distances between urban and rural areas, and possibly because of legal restrictions on geographic mobility. International migration, which had been as high as 2 percent per annum in the West Bank in the late 70s and early 80s (Hovdenak et al. 1997), is likely to have lost some of its previous impact, partly due to expulsion of Palestinians from the Gulf States. High fertility rates maintain population growth, and contribute to the dependency burden, especially in Gaza which has the lowest level of living standards in the OTs (Ugland and Tamari 1993).

Although the 1948 war caused a significant relocation of the population and disruption of economic and social patterns, the rapid population growth means that

most of today's population lives where they were born, often in an urban environment. This "second generation stability" may partly explain why refugee status seems to have less impact on the age and sex composition if the population than region. However, refugee status influences educational achievement, with refugees having higher educational levels, on average, than non-refugees.

Chapter 2 Family and Household

Marwan Khawaja

Families are the primary social and economic units in most societies. Throughout history, they have been the main social group within which economic resources are shared to support daily life. They also provide the context in which children are acclimatized to societal norms and values through interactions with older family members. While the significance of the family as a social and economic unit has declined in modern societies, the family remains "at the center of social and economic activities" in Arab society (Barakat 1985: 27). Furthermore, a household and family profile can aid in the design of public policies and programs aimed at improving the living conditions of the population, particularly in the area of welfare and housing needs. In this chapter, I describe several aspects of household and family structure (who lives with whom), size, and distribution. Variations in household structure and size along regional and some socioeconomic dimensions are discussed. These features provide some important insights about the social composition and dynamics of Palestinian society.

The chapter consists of four main sections. I begin with a brief review of concepts and issues of measurement related to households and families. Next, I focus on the household population, describing the relationship patterns of the household population as well as household headship. Household headship is described in relation to selected characteristics, particularly age and sex. The third section describes the evidence on household size and composition. Variations in the size of households according to household type, region, and type of residence are presented. The structure of households and families is also presented here using two household classifications. Particular attention is given to family households, but living arrangements in terms of the number of families and generations in the household are also described. The fourth sections looks into the household living arrangements of two dependent population groups, children and the elderly.

2.1 Concepts and measurement issues

Conceptual and measurement issues are important because of a lack of consensus regarding the definition of a family or household. The standard demographic definition of a household is one or more (related or unrelated) persons who live together in a housing unit and who usually have meals together and share other essentials of living (UN 1992). A family, on the other hand, refers to a group of individuals related by blood, marriage, or adoption. Thus, while a household may contain only one individual a family must consist of at least two related persons. Yet, the concept of household is more general than that of family since it can consist of multiple families or none at all (non-family households).

Common residence or "living together" is specified as a condition for a household or family to exist. In the demographic survey, a two-step procedure had been followed to determine household or family boundaries. Both separate access and complete kitchen facilities distinguished housing units. The housing unit could have been an apartment within a building, a separate house, or any other kind of living quarter with the exception of institutions (e.g., prisons, hospitals). Once housing units had been distinguished, households were then determined on the basis of joint meals and sharing of other essentials of living. According to this procedure, a household could not span more than one housing unit.

The demographic survey used a *de jure* definition for household membership. Thus, all households have complete membership lists. The household roster included every person who was normally residing in the housing unit at the survey reference date, beginning with the head. Some individuals who were temporary visitors or boarders were initially included in the household schedule but they were not considered household members. The household schedule included two questions to determine usual residence, filtering out temporary visitors. First, each household was asked to state whether each member slept in the housing unit the night before the survey reference date. Second, a direct question on usual residence was asked. Usual residence was defined to include all those normally residing in the housing unit plus those declared to be a way for less than a year.

In addition, every person listed in the household schedule was asked about his or her relationship to the head of household and numerous other characteristics, including age, sex, and marital status. This information made it possible to construct a profile of households and family composition according to a relevant system of classification. Although most households contain only family members, some households include unrelated persons, and a few households are entirely composed of loners or unrelated persons.

Two main systems of classification are used to describe patterns of household formation. The first distinguishes among main types of families. Several kinds of

families can be identified using the standard definition of family described above. In addition to loner households, the classification includes nuclear family, extended family, and a composite family. A nuclear family is defined as consisting only of a husband and/or wife and their children, if any. Thus, this main type may include married couple only, married couple with children or single parent with children. When relatives of the head live with a nuclear family unit, we refer to this form as extended family. Finally, a residual category of "composite household" is used here to refer to families living with unrelated persons. It should be kept in mind that the last two types, extended and composite, include a varying number of families or generations in them. Family units nested within a larger (primary) family unit are commonly referred to as "subfamilies" (see, Shryock and Siegel 1976:172). Below, we extend the classification further by distinguishing households according to the number of subfamilies and generations contained in them.

Our second system of household classification builds on the concept of "minimal housing units" defined by Ermisch and Overton (1985:36) as "the smallest divisible, familial elements within households." The system used here breaks household units into two main types: simple and complex households. Simple households correspond to Ermish and Overtons' minimal units and include four basic types: Loners, single parent with children, married couple only, and married couple with children. These types comprise the vast majority of households in many developed countries. In our context, however, such classification leaves out a sizable segment of the household population living in extended or composite households. We therefore add a second category of complex household to include other relatives and unrelated persons living with the four basic family units. We restrict the category complex household to comprise four more basic types by simply adding other (related and unrelated) persons to simple household types. In addition to achieving a broad understanding of Palestinian society, this household classification can be useful in measuring potential demand for the establishment of independent household (see, Ermisch and Overtorn 1985).

Likewise, there is considerable disagreement concerning the definition and measurement of household headship. For one thing, countries differ widely in their definitions, wording and measurement of household head. Some countries use a subjective or self-definition by household members, others equate heads with decision makers within households, and still others adopt economic criteria such as main earner or supporter of the household economy (see, UN 1992). Second, the term reflects a traditional conception of households as a conflict-free, hierarchical, perhaps patriarchal, system of authority (see, Jad 1997; Rosenhouse 1994; Folbre 1990). With households becoming increasingly democratic and diverse, some call for a more neutral term for headship. Among the most commonly used or suggested terms are

"reference person" (UN 1992), "women-maintained household" (Lloyd and Brandon 1991) and "householder" (US Bureau of the Census 1995).

Given the lack of an ideal alternative and recognizing the fact that "headship" is a cultural construct, a subjective, self-reported definition is used in the survey. In other words, the household head is the person designated as such spontaneously by the respondent or by other household members. Hence, headship here reflects the cultural norms prevailing among Palestinian households. It is not our purpose to make a moral or political judgement concerning household headship. In designating one member as a household head, our purpose here was rather to avoid double counting of household members and to make possible the assessment of household living arrangements.

Yet, a question has often been raised whether this procedure would result in the underreporting of female-headship (see, Jad 1997). The underreporting could result from the designation of absentee male husbands as heads, reflecting "culturally-correct" practice. Alternatively, the proportions of female reported household heads could be higher if a definition based on economic criteria such as income is used instead. The first does not pose a problem in this survey since household heads must be usual residents by definition. Given the lack of economic data such as income or hours worked in the survey, it is not possible to examine the second problem systematically. There is mixed evidence, however, concerning bias resulting from the use of self-reporting versus economic criteria for household headship (see, Barros et al. 1994). In fact, given the very low labor force participation among Palestinian mothers, the use of economic criteria could bias the reporting of female headship in the opposite direction.

Finally, all cases of missing information or otherwise inconsistent responses were carefully evaluated and double-checked with the original questionnaires. Several rates and proportions were also cross-checked with those obtained from similar national-level household surveys conducted in 1995 and 1996. In general, the survey data appear to be internally consistent and fairly comparable to independent data sources.

2.2 The Household Population

Before describing the structure of Palestinian households and families as independent units, the household relationship patterns of the population require some attention. Here, our purpose is to describe how individual members are organized into households. Since household composition is derived primarily from the relationships of each person to the head, household membership of the population as a whole is

described first. A portrait of household heads is then attempted, focusing on head-ship rates for some characteristics of the adult population.

Household membership

The survey instrument included a rather detailed household membership classification consisting of twelve categories. Given the sample size, there are very few cases for children of spouse, parents of spouse, and siblings of spouse. We have therefore collapsed these three categories into their counterparts for heads, resulting in a total of nine membership categories. Table 2.1 presents the distribution of the household population according to sex and membership categories, including the heads. As shown in this Table, the "other" categories pertaining to relatives and unrelated persons account for a relatively small proportion (1.5 percent) of the population, implying that the membership classification used in the survey captures household relationships fairly well.

As expected, children of heads, or of his/her spouse, constitute the majority (60 percent) of the household population with very little difference between the West Bank and Gaza Strip. This is followed by the categories "head" (14 percent) and "spouse of head" (13 percent). Thus, the three categories of the "conjugal family" account for about 87 percent of the household population. In addition to "others", the remaining 13 percent of the population comprise grandchildren, parent, sibling, and son/daughter in law of the household head.

Generally, the patterns of household membership show a striking gender difference. This is especially true for the "head" and "spouse" categories. About 26 percent of males are household heads compared to about two percent of females. Conversely, a significantly larger proportion (27 percent) of females are spouses than

Table 2.1 Household membership by sex and area

Membership category	West Bank		Both	Gaza Strip		Both	Total		Both
	Male	Female	Sexes	Male	Female	Sexes	Male	Female	Sexes
Head	27.1	2.7	15.2	23.6	1.7	12.8	25.9	2.4	14.4
Spouse of head	0.1	27.9	13.6	0.1	24.4	12.0	0.1	26.7	13.1
Child of head	65.4	54.8	60.2	63.9	52.4	58.2	64.9	54.0	59.6
Parent of head	0.5	2.9	1.6	0.7	3.4	2.0	0.6	3.0	1.8
Sibling of head	1.9	2.0	1.9	3.0	2.1	2.6	2.3	2.1	2.2
Son/Daughter-in-law	0.1	4.3	2.1	0.1	6.1	3.0	0.1	4.9	2.4
Grandchild	4.3	4.2	4.3	6.9	6.5	6.7	5.2	5.0	5.1
Other relative	0.6	1.1	0.9	1.8	3.3	2.5	1.0	1.8	1.4
Non-relative	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1
Total (n)	37954	36161	74115	19287	18617	37904	57241	54778	112019

males (0.1 percent). Similarly, there is a larger proportion of sons, mothers, daughters in law, and female other relatives than daughters, fathers, sons in law, and male other relatives. This pattern is a reflection of many factors including sex differentials in age at marriage and adult mortality as well as patrilocal-patriarchal features of Palestinian households. It is not surprising, therefore, that no such sex differences in household membership exit for siblings, grandchildren, and non-relatives.

The West Bank and Gaza Strip exhibit the same general patterns described above. An important difference between the two areas however is the larger proportion of the population classified as heads, spouse and children in the West Bank than the Gaza Strip. This implies that the extended family is more common in Gaza than the West Bank, as it will be shown below.

Headship

The second dimension to be examined is the population segment exposed to heading independent households. Here, particular attention is given to age and sex since headship in our context is sex-specific as well as an age-graded process.

The respondent for each household was asked to list all persons in the household beginning with the head. Following the usual practice, one adult individual in each household was designated as household head. Recall that the "head" is the person identified as such by the respondent or other members of the household. The Arabic term for household head, *rub al usra* (lord of the family), is widely used and usually refers to the person who takes final decisions on behalf of the household in almost all economic and social matters. Here, the universe is all individuals who were 15 years old or older and usually living in households at the time of the survey. The 15 years cutoff follows international (UN) conventions for the identification of "adult" populations.

Table 2.2 Headship rates by age and sex

Age	Male	Female	Both Sexes
15–19	0.7	0.1	0.4
20–24	11.8	0.3	6.3
25–29	43.7	0.5	23.0
30–34	73.4	1.6	38.0
35–39	90.1	2.8	45.6
40–44	94.9	5.1	50.1
45–49	96.1	8.4	49.4
50–54	96.0	9.9	50.2
55–59	95.6	13.7	48.9
60–64	95.2	14.1	49.8
65+	85.4	21.0	52.5
Total	49.0	4.3	26.9

Table 2.2 presents headship rates for the adult population by age and sex. A first look at this table reveals that headship is primarily an age-dependent process. The probability of heading a household increases consistently from a low level of less than one percent for teenagers to a moderate level of 23 percent for persons in their late twenties, 25–29 years, to a high level of 50 percent for middle-aged persons, 40–44 years. The headship rates stabilize around 50 percent up to age 64 years, rising slightly to 53 percent only for those aged 65 and older. The marked differences in the headship rates at the extremes of the age scale are probably due to life-cycle events, particularly entry into, or exit from, marriage – the trend is consistent with marriage rates. The differences could also be due to another life-cycle event, namely the birth of children, where an independent household is established by a couple only after a certain number of children are born.

The overall headship rates mask significant differences between the sexes in heading households. As shown in Figure 2.2, the male headship rates are substantially higher than their female counterparts, regardless of age. The rates show different dynamics as age increases. Although much higher in magnitude, headship rates among males show essentially the same trend as the overall rate, increasing consistently to middle-age years and then stabilizing at relatively high levels throughout the adult years. Thus, headship rate increases from about one percent among teenagers to around 95 percent among men aged 40–64 years. Thus, by age 40 almost every adult male heads an independent household. However, male headship decreases at older ages to about 85 percent for those aged 65 years old and older. Apparently, the increase in the overall headship rate among elders observed above is due to increases in female headship.

Unlike that of males, the proportion of females heading their own household increases consistently with age, from a lowest rate of 0.1 percent among teenage women to a highest level of 21 percent among women age 65 years old or older. About one out of every ten women age at least 45 years heads an independent household. The headship rate doubles by age 65 years to 21 percent, implying that more than one out of every five women is a household head. It appears that female headship in Palestine is largely a life cycle phenomenon, indicating absent husbands due to death or divorce at old age.

This is clearly seen when examining headship rates by marital status (see, Table 2.3). As expected, a few of the never-married persons head their own households,

Table 2.3 Headship rates by marital status and sex

Marital Status	Male	Female	Both Sexes
Never married	1.9	1.2	1.6
Married	81.0	1.0	40.5
Widowed	50.5	35.0	36.7
Total	49.0	4.4	26.9

amounting to about two percent. But the headship rate among the married is relatively high (41 percent) and quite similar to that of the widowers and divorcees (37 percent). When dis-aggregated by gender, substantial differences are found between the headship rates of the married and the previously married (widowed and divorced) persons. While about 80 percent of married men head their own households, only about one percent of married women do. Thus, male headship is almost universal among the married population. The situation is quite different among widowers. About half of male widowers and divorcees, compared to a little more than a third of their female counterparts, head their own households. This confirms our conclusion that headship among women is essentially due to widowhood and divorce.

2.3 Households and Families

In this section, the focus is on household as the unit of analysis rather than individual persons.

We examine a number of dimensions pertaining to Palestinian households, including headship, structure, and size. Variations of these dimensions along selected regional and socioeconomic characteristics are also explored.

Household headship
Differences in the headship rates among various population groups were explored above. Here, the patterns of household headship are examined, focusing on house-

Figure 2.1 Distribution of households by headship status
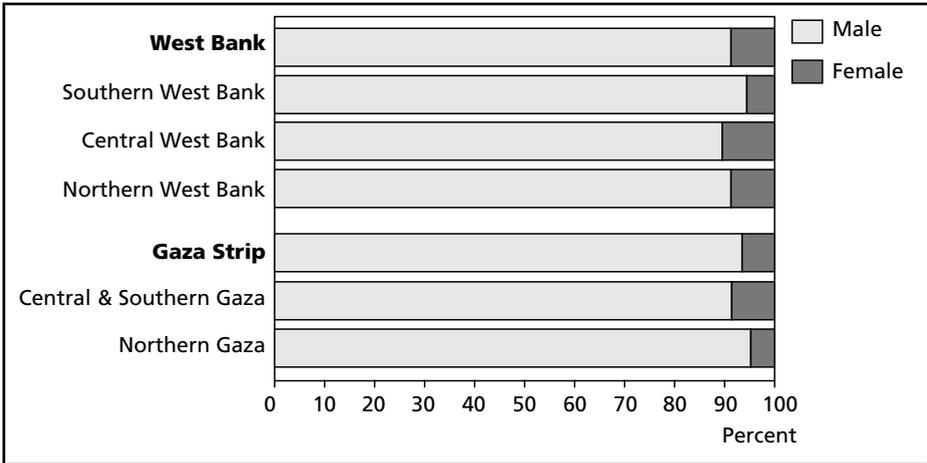
hold as the unit of analysis. What are the proportions of households with a female head? Are these proportions likely to vary among regional and socioeconomic groups?

As shown in Figure 2.1, About 9 percent of households in the West Bank and seven percent of households in Gaza Strip are female-headed. In the two areas, men head almost 92 percent of households. There are some regional variations however within the two areas, with respect to female headship. It is more common in the Central West Bank region (11 percent) than the Northern (9 percent) or Southern (six percent) regions. Similarly, the proportion of female headship in Southern Gaza (9 percent) is more than double that of Northern Gaza (four percent).

With respect to residence (see, Figure 2.2), refugee camps appear to have a slightly larger proportion (9 percent) of female-headed households than villages (seven percent) or towns (eight percent). Female-headship is more prevalent in the camps of both the West Bank and Gaza Strip than villages or towns. This gender composition of household headship is consistent with expectations based upon a patriarchal family structure. It is not so in Gaza Strip, however, where villages have a higher proportion of female headship than towns.

The overall rate of female headship, important as it is, does not reveal the special characteristics of female-headed households that might make them economically vulnerable. Given the small sample size, this dimension cannot be explored further here.

Household composition

Household composition is examined from various dimensions. The first dimension to be explored is the predominance of households with an extended family structure.

Figure 2.2 Distribution of households by headship status and residence
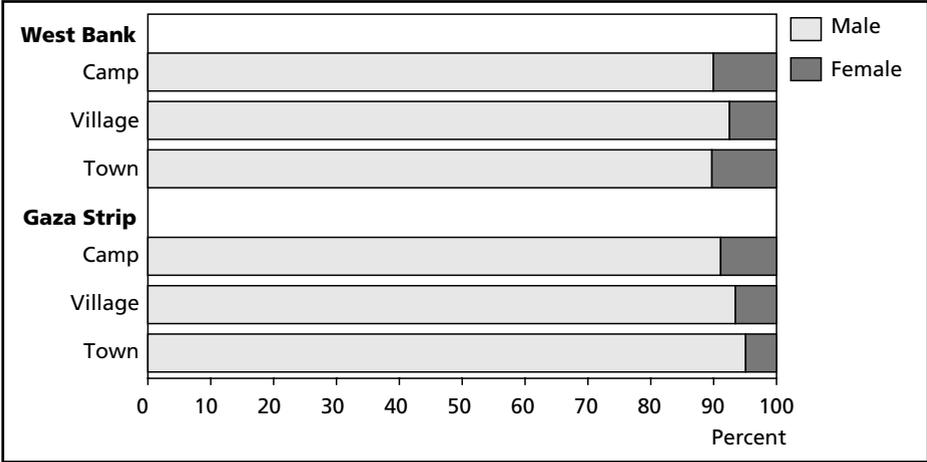
An extended family household is defined as one that includes a nuclear family and other relatives of the household head. Households that include unrelated persons are not counted as extended families. In general, extended families are those with three generation families or two married couples. Figure 2.3 presents the proportion of households with an extended family structure.

In both the West Bank and Gaza Strip, about one fourth of households are extended with the majority (70 percent) having nuclear structures.[1] Households with extended structures are more common in Gaza Strip than the West Bank. While one out of three households in Gaza Strip is extended, only about one out of every five households in the West Bank is. The same difference is found with regard to nuclear households. This is surprising given the age structure of the two populations, where Gazans are younger on average than West Bankers. Nor can the difference be explained by urbanization, as Gaza is more urban than the West Bank. However, significant variations in density, (and hence land scarcity), as well as economic conditions of the two populations may explain the higher proportions of extended household structure in Gaza than the West Bank.

There are relatively few composite family households in either the West Bank or Gaza Strip: only slightly more than two percent of households in the West Bank and about one percent in the Gaza Strip are composite in structure. Likewise, loner households are rare, amounting to merely about three percent of total households, and only two percent in Gaza Strip.

Little regional variation is found in household structure within either the West Bank or Gaza Strip as shown in Figure 2.4. The only exception appears to be Northern West Bank where extended households are less common and nuclear households are more prevalent than Southern or Central West Bank regions. While only one out of every five households in Northern West Bank is extended, one of every four households in the Central or Southern West Bank has extended structures. Thus,

Figure 2.3 Distribution of households by main type and area

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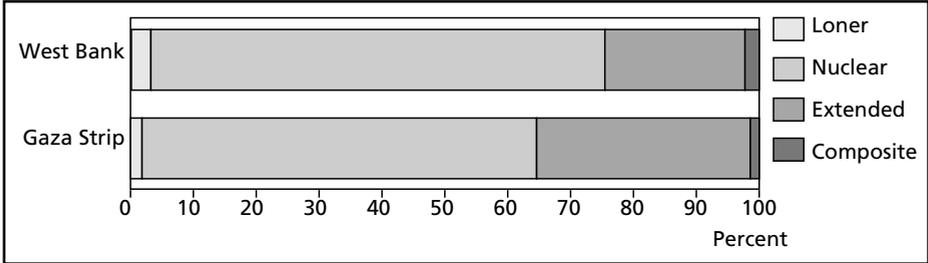
[1] These results do not necessarily imply that extended kin ties are weak in Palestinian society. Recent evidence from Jordan shows that family members who live independently in separate households have strong kinship (*hamula*) ties and tend to live close to other paternal or maternal relatives (see, Kalimat and Hanssen-Bauer 1998).

nuclear household structure does not appear to be a feature of urban life or modernization as some claim (e.g., Barakat 1985:38).

This is clearly evident in Figure 2.5, which displays household structure by residence. The proportions of nuclear households in the village (72 percent) and city (71 percent) are virtually identical. The same percentage difference is found between the two residence types with regard to extended household structures. Extended family households are however much more common in refugee camps, with about 40 percent of the Camp households in Gaza Strip and more than one-fourth of Camp households in the West Bank consisting of extended family units. It should also be pointed out that extended families are more prevalent in Gaza Strip than the West Bank, regardless of type of residence. These results seem to suggest that extended household structure has less to do with rural-urban conditions or ways of life. On the contrary, the findings point to the other direction, with family life being

Figure 2.4 Distribution of households by main type and region
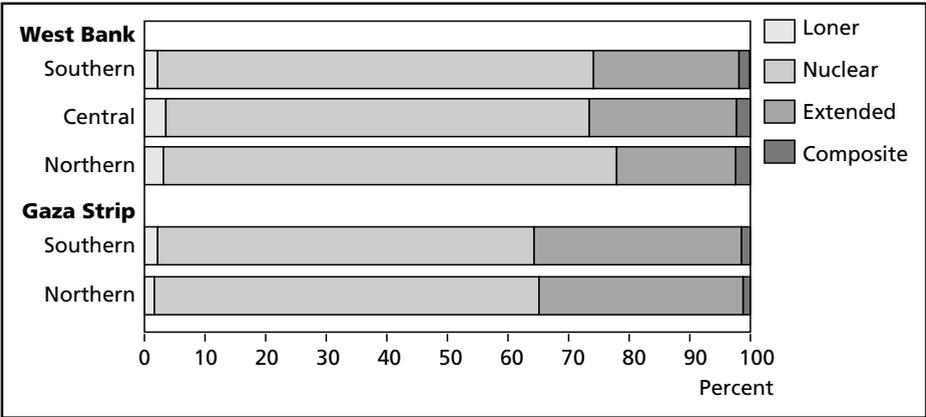
Figure 2.5 Distribution of households by main type, residence and area
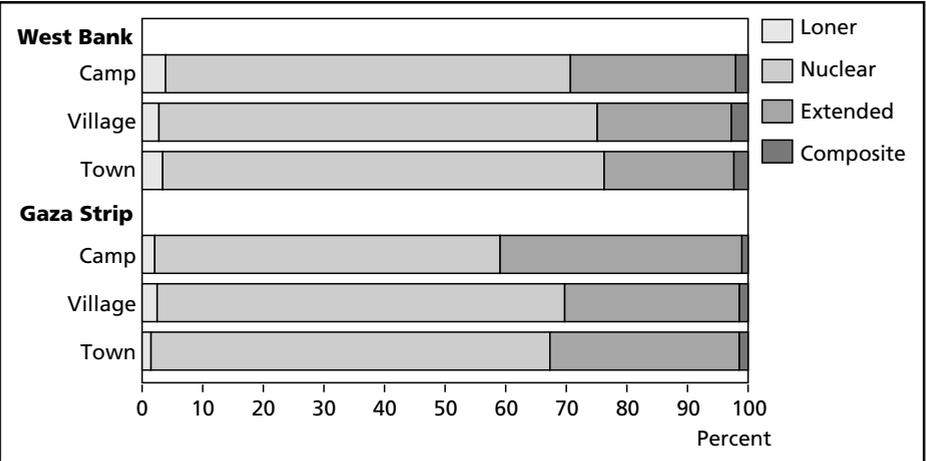
more nucleated in the village and the West Bank. Nuclear family structure seems to be associated with housing density and, perhaps, economic fortune.

The survey data do not contain a direct measure of economic standing such as income. Education could be used as a proxy, however, as educational attainment is highly correlated with income almost everywhere. As shown in Figure 2.6, the prevalence of extended household decreases consistently with the educational level of the head. Thus, one-third of households whose head has less than elementary education have extended household structures compared to only one-fifth of households whose heads have at least secondary education. This same large difference of about 14 percent is found in both the West Bank and Gaza Strip. But, again, extended households are more prevalent in Gaza than the West Bank regardless of education. The same conclusions hold true for variations in nuclear household units among educational groupings in both areas.

An examination of household structure by refugee status reveals slightly different dynamics (see, Figure 2.7). Overall, extended households are more common among refugee households than non-refugees. About 30 percent of refugee households have extended structure compared to about 23 percent of their non-refugee counterparts. The same percentage difference is found between the two groups with regard to nuclear household structure. However, these differences are essentially due to variations in refugee status in Gaza Strip but not in the West Bank. Thus, the West Bank appears to be homogenous in household structure when it comes to the refugee non-refugee distinction.

Household composition is also expected to vary between male-headed and female-headed households, an important group distinction from a policy perspective.

Figure 2.6 Distribution of households by main type, education of head and area
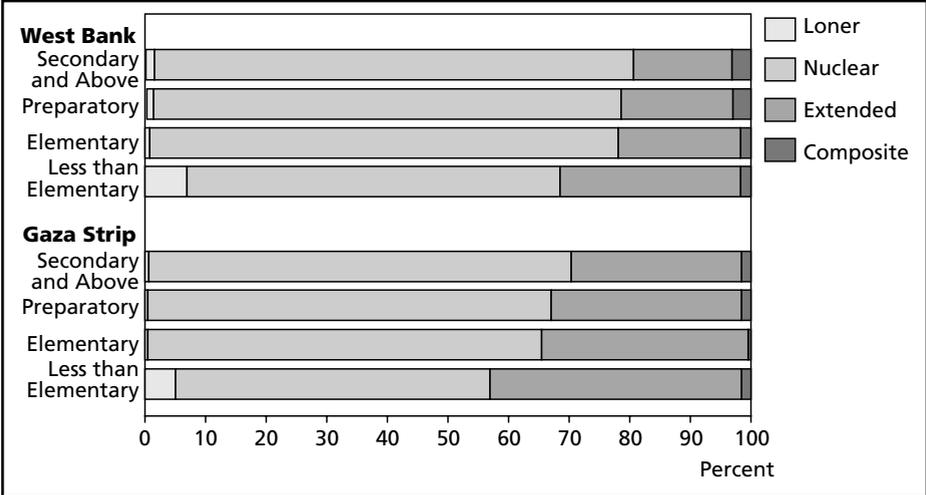
Figure 2.8 shows that both male-headed and female-headed households have the nuclear family as the predominant household structure. There are significant differences between the two groups, however, with respect to all household formations. Households headed by females are more likely to be of loner and complex type than their male counterparts. For example, almost 28 percent of female-headed households are loners compared to only one percent of male-headed households, which is a significant difference indeed. On the other hand, male-headed households are more likely to be nuclear or extended than female-headed households. About 72 percent of male-headed households are nuclear and 26 percent are extended. The corresponding proportions for female-headed households are 46 and 19, respectively. Do these patterns remain when a control is made for area?

The answer is yes – the West Bank and Gaza Strip show essentially similar patterns. There are some noteworthy changes, however. The difference between the two groups with respect to nuclear and loner households increases a bit in the West Bank and decreases in Gaza Strip when compared to the overall proportions. The opposite

Figure 2.7 Distribution of households by main type, refugee status and area
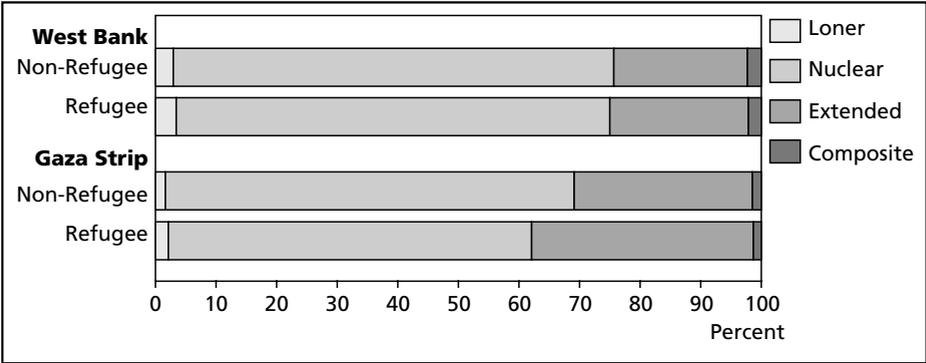
Figure 2.8 Distribution of households by main type, headship status and area
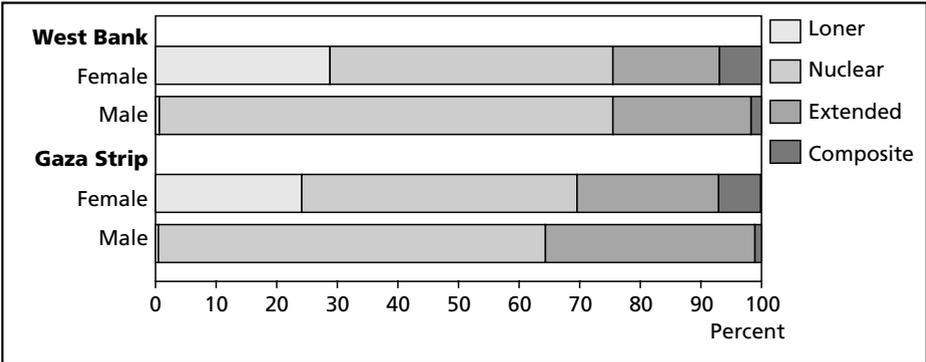
is true with regard to extended household structure, where the gap between the two groups is wider in Gaza Strip than the West Bank.

There has been a long-term trend towards the formation of smaller, less complex households almost everywhere, and the Palestinian territory is evidently not an exception. However, the classification of households by main types is a crude one because it does not distinguish among smaller household units subject to variations in the family life cycle. Nor does it control for the age and sex structure of the population. Household formation is definitely an age-dependent process everywhere. Furthermore, the establishment of a new household is primarily linked to marriage here, as living with parents has been the traditional norm for the never-married. This is especially the case for females, where setting up an independent household is generally seen as inappropriate. It is therefore useful to examine household structure from a life cycle perspective (see, Ermisch and Overton 1985).

The extended household classification, reported in Table 2.4, is essentially a re-arrangement of the data displayed in the main classification. Thus, as shown in this Table, the vast majority of nuclear households consist of "married couple with

Table 2.4 Distribution of households by type and area

	West Bank	Gaza Strip
Simple		
Loner	3.1	1.9
Married couple only	5.8	4.8
One spouse with children	4.3	3.2
Married couple with children	62.3	54.8
Complex		
Married couple with others, no children	1.2	1.6
One spouse with children and others	1.9	2.2
Married couple with children & others	19.4	30.2
Head with others	2.0	1.3
Total (n)	11258	4852

Table 2.5 Distribution of households by type, residence and area

Household Type	West Bank			Gaza Strip		
	Town	Village	Camp	Town	Village	Camp
Simple						
Loner	3.4	2.8	3.8	1.5	2.0	2.5
Married couple only	5.9	5.8	5.1	5.3	5.0	4.1
One spouse with children	5	3.9	3.9	2.9	2.9	3.7
Married couple with children	62	63.2	57.3	57.7	60	48.8
Complex						
Married couple with others, no children	1.5	1	1	1.6	0.6	2
One spouse with children and others	2.3	1.5	2.6	1.1	1.4	4
Married couple with children & others	17.7	20	23.6	28.6	27.1	33.6
Head with others	2.2	1.8	2.7	1.4	1	1.3
Total (n)	4276	6096	886	2276	778	1798

children only." In fact, this kind of households accounts for 60 percent of all households. The other two nuclear household types, "married couple only" and "one spouse with children," account for about six and four percents, respectively. Apparently, single-parent households, which have been on the increase in many developed and developing countries, are still quite rare in the Palestinian context. This might be due to relatively low levels of marital dissolution but also to the tendency among couples to return to the parental home after divorce or widowhood.

The second largest household type is a complex one, "married couple with children and others," representing about 23 percent of all households. Thus, the vast majority of extended households include children, with the childless household type accounting for about three percent of all households. The remaining two percent of households include one spouse with children in addition to other relatives and unrelated persons.

As expected, the West Bank and Gaza Strip have essentially similar household structures. It was shown above that extended household structure is more widespread in Gaza Strip than the West Bank. This is apparently due to the prevalence of "married couple with children only" type at the expense of "married couple with children and other" in the West Bank as compared to Gaza Strip. For, there is very little difference in the proportions of other household types between the two areas. The same differences between the two areas remain even after controlling for type of residence.

Conclusions concerning variations in household structure by type of residence arrived at above hold here as well, with camps having higher proportions of extended households than either towns or villages (see, Table 2.5). The same ranking of household types is also observed here, with "married couples with children" as the largest type followed by "married couple with children and other persons." Otherwise, little regional variation in household structure exists within the West Bank or Gaza Strip as reported in Table 2.6.

Variations in household structure between male-headed and female-headed households observed earlier can now be elaborated using this classification. It was concluded above that male-headed households are more likely to be nuclear than female-headed households. Table 2.7 shows that this conclusion holds for the household types, "married couple only," and "married couple with children only." There is significantly larger proportion (44 percent) of female-headed households in the "one spouse with children" category than male-headed households (one percent). In addition, about 18 percent of female-headed households are in the category "one spouse with children and others" and another seven percent are in the "head with others" category. The corresponding proportions for male-headed households are about two percent for both categories. These are significant differences indeed, and they seem to hold for the West Bank and Gaza Strip separately. Overall, most of

the female-headed households are in the "one spouse" household types while most of the male-headed households are in the "married" household categories.

As before, some variations in household structure by refugee status exist for Gaza Strip but not the West Bank (see, Table 2.8). The two groups differ somewhat with respect to the "married couples with children only" and "married couple with children and others" categories. Thus, no departure from the overall pattern is observed here.

However, new insights are gained by examining variations in household structure among educational groups using this classification (see, Table 2.9). As demonstrated previously, the extended household structure decreases with education, and the groups with the least education seem to depart from the rest with respect to

Table 2.6 Distribution of households by type and region

| Household Type | West Bank | | | Gaza Strip | |
	Northern	Central	Southern	Northern	Southern
Simple					
Loner	3.2	3.5	2.2	1.7	2.2
Married couple only	6.2	5.8	4.8	5.2	4.4
One spouse with children	4.7	4.9	2.6	2.4	4.0
Married couple with children	63.8	59.3	64.5	55.8	53.6
Complex					
Married couple with others, no children	1.0	1.3	1.4	1.9	1.3
One spouse with children and others	1.4	2.8	1.2	1.5	3.0
Married couple with children & others	17.4	20.3	21.8	30.3	30.1
Head with others	2.3	2.0	1.5	1.2	1.4
Total (n)	4663	4255	2340	2526	2326

Table 2.7 Distribution of households by type, headship status and area

| Household Type | West Bank | | Gaza Strip | |
	Male	Female	Male	Female
Simple				
Loner	0.6	28.8	0.4	24.2
Married couple only	6.3	0.7	5.1	0.0
One spouse with children	0.5	44.0	0.5	42.4
Married couple with children	68.0	1.8	58.4	3.0
Complex				
Married couple with others, no children	1.3	0.2	1.7	0.4
One spouse with children and others	0.5	16.7	0.8	22.6
Married couple with children & others	21.2	0.9	32.3	0.4
Head with others	1.6	6.9	0.9	7.0
Total (n)	10275	983	4535	318

household formation. Yet, there are virtually no differences among the groups in the prevalence of "married couple only" type in the nuclear class, and of "married couple without children and with others" type in the extended household class. Furthermore, the group with the least education is 20 percent less likely to have the

Table 2.8 Distribution of households by type, refugee status and area

Household Type	West Bank		Gaza Strip	
	Refugee	Non-Refugee	Refugee	Non-Refugee
Simple				
Loner	3.4	3.0	2.1	1.7
Married couple only	5.7	5.8	4.0	6.2
One spouse with children	4.3	4.3	3.5	2.6
Married couple with children	61.6	62.6	52.5	58.6
Complex				
Married couple with others, no children	1.2	1.2	1.9	1.1
One spouse with children and others	2.3	1.7	3	1.0
Married couple with children & others	19.5	19.4	31.8	27.4
Head with others	2.0	2.1	1.2	1.4
Total (n)	3402	7853	3061	1791

Table 2.9 Distribution of households by type, education of the head and area

Household Type	Less than Elementary	Elementary	Preparatory	Secondary and Above
West Bank				
Simple				
Loner	7.0	0.8	1.1	1.4
Married couple only	6.6	4.1	6.6	5.6
One spouse with children	8.3	3.0	2.1	1.5
Married couple with children	46.7	70.3	68.6	72.0
Complex				
Married couple with others, no children	0.9	1.1	1.0	1.8
One spouse with children and others	3.9	1.0	1.0	0.6
Married couple with children & others	25.1	18.3	16.8	14.2
Head with others	1.5	1.5	2.8	2.8
Total (n)	3850	2714	2085	2590
Gaza Strip				
Simple				
Loner	5.1	0.5	0.4	0.6
Married couple only	6.3	3.6	3.4	4.8
One spouse with children	5.9	2.6	3.0	1.1
Married couple with children	39.6	58.7	60.2	63.8
Complex				
Married couple with others, no children	1.4	1.3	2.4	1.5
One spouse with children and others	5.3	0.9	0.8	0.9
Married couple with children & others	35.1	31.8	28.3	25.7
Head with others	1.4	0.4	1.6	1.6
Total (n)	1481	904	882	1579

typical household structure, "married couple with children only," than the other groups. This is a larger percentage difference than the one observed for the nuclear household type as a whole. Again, the differences, as a whole, which hold for the West Bank and Gaza Strip, can probably be attributed to the age and sex composition of the various education groups.

Household composition could be examined from a different, but related, perspective, namely in terms of the number of families or generations of kin-persons who live together as members of one household. In addition to its utility in gaining a broad understanding of household formation, this approach is particularly useful in determining the potential for housing demand. The focus here is on variations in the number of families and generations in households along regional and residential lines.

As shown in Figure 2.9, households with three or more families are quite rare, accounting for less than five percent of all households. Two-family households are relatively common, amounting to about 13 percent of the total, but one-family households are the most common form accounting for almost 80 percent of all households. As would be expected, there is some variations in household crowding between the Gaza Strip and the West Bank areas. The West Bank has a larger proportion (81 percent) of one-family households than Gaza Strip (73 percent). The proportion of households having three or more families in the West Bank (three percent) is less than half of the corresponding one in the Gaza Strip (eight percent). On the other hand, camps have a larger proportion of households with 2 or more families than towns or villages in the Gaza Strip but not in the West Bank (see, Figure 2.10). In the Gaza Strip, about 29 percent of households in camps have two or more families compared to only 19 percent in villages and about 23 percent in towns. Interestingly, villages have a larger proportion of one-family households than camps or towns. This could not be a reflection of differential preferences among households but is probably due to housing supply.

Figure 2.9 Distribution of households by number of families and area
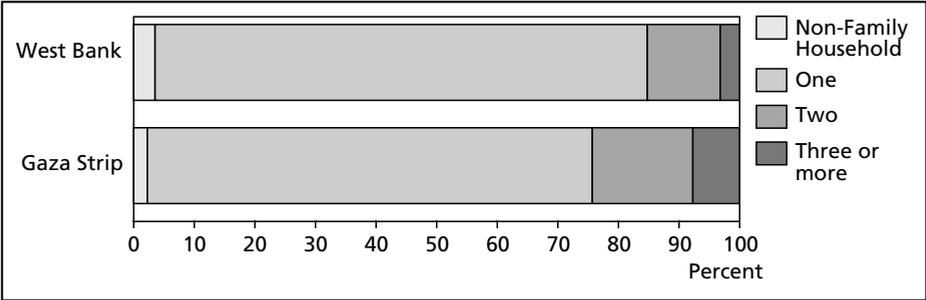
Geographic variations in household composition are also evident when approached from a generational perspective. Generations are identified by one of the following four relationship categories: Head, parent, child, and grandchild. Overall, the two-generation household is the predominant form, representing about 72 percent of all households as shown in Figure 2.11. About one in ten households consist of one generation, and about one out of five households have three to four generations. Consistent with the above results, the West Bank has more households with one or two generations compared to the Gaza Strip. On the other hand, the Gaza Strip has more households (25 percent) with three or four generations than the West Bank (17 percent).

Three or four generation households are also more common in the camps than towns or villages, especially in Gaza Strip. As shown in Figure 2.12 (on the next page), about 29 percent of households in camps contain three or four generations, compared to about 23 percent in towns or villages. The percentage differences between camps and non-camps in the West Bank are smaller. It should be pointed

Figure 2.10 Distribution of households by number of families and residence
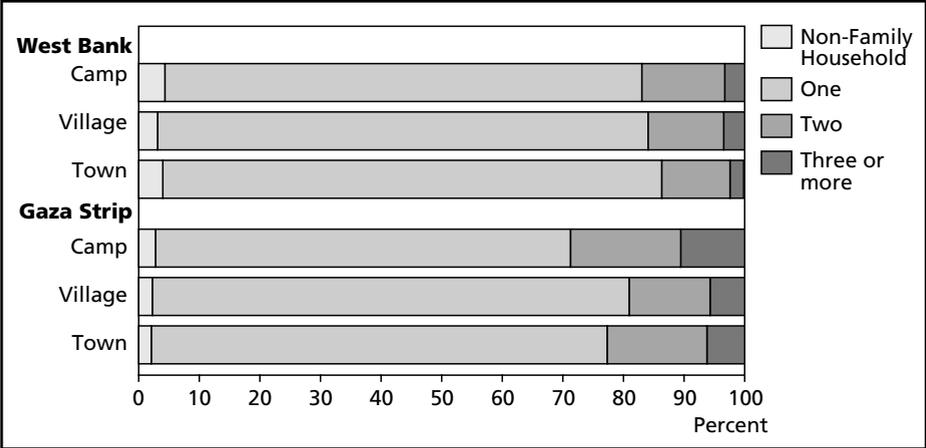
Figure 2.11 Distribution of households by number of generations and area
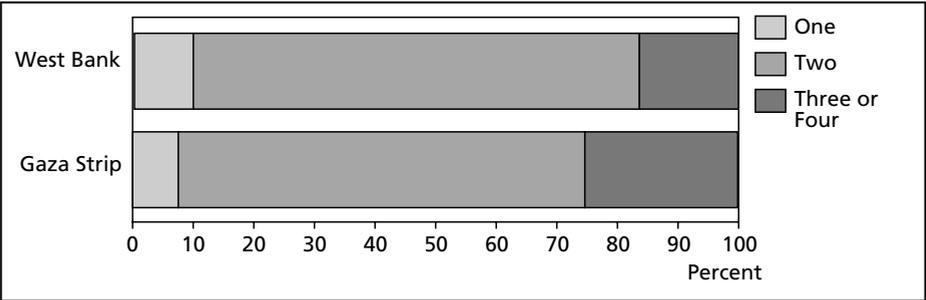
out however, that the proportions of households with three to four generations are larger in the Gaza Strip than the West Bank regardless of type of residence. This finding confirms the above conclusion regarding the source of disparities in household composition, namely housing supply.

Household size

Overall, Palestinian households are large, averaging almost seven persons per household. Households are larger in Gaza Strip (7.8 persons) than the West Bank (6.6 persons). This remains true regardless of type of residence. Thus, Gaza Strip's towns, camps, and villages have larger households than their West Bank's counterparts. However, there is little variation in household size within the West Bank or Gaza Strip. For both areas, households are larger in camps than in cities or villages. Average household sizes range from a low of 6.2 persons in West Bank cities to a high of eight persons in the Gaza Strip camps. Household size is primarily a function of fertility levels, the number of children in families, and the extent to which related adults tend to share housing units. Lower fertility levels, particularly in the West Bank regardless of residence, are probably the reason for the observed geographic differentials in household size.

As a summary measure, the mean household size does not tell us anything about peculiarities in the distribution of households by size. As shown in Figure 2.13, the overall distribution is somewhat skewed to larger household sizes. About one out of four households (26 percent) have up to four persons, about 44 percent have from five to eight persons, and about 30 percent have at least 9 persons. There are nearly as many very large households, with 12 persons or more, as they are with five, six,

Figure 2.12 Distribution of households by number of generations and residence
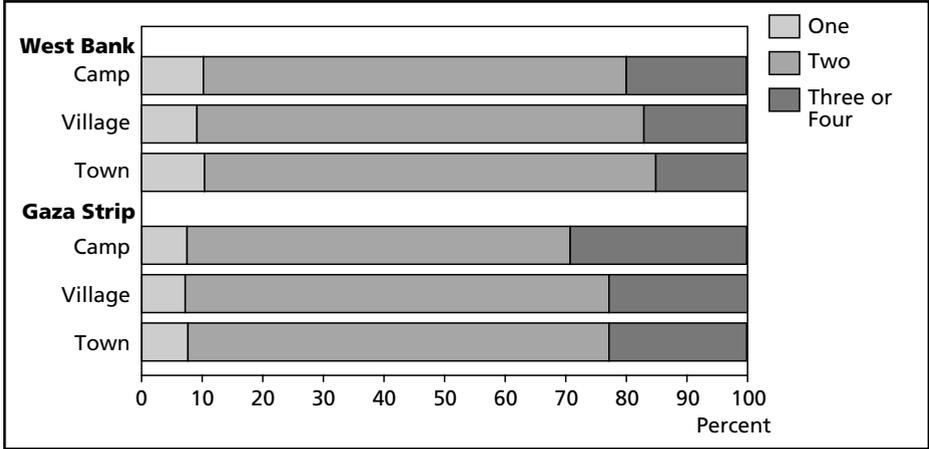
seven or eight members, accounting for about 10 percent of households each. The overall skewed shape of the distribution is really due to particular concentration of households in larger size categories in Gaza, with the West Bank showing more balanced distribution. Thus, the West Bank has a larger proportion of small household (1–4 members) and a smaller proportion of large households (eight or more members) than Gaza Strip. Comparing the largest size categories can clearly demonstrate the difference in the distribution of household size between the two areas. Households with at least eight persons account for about 40 percent of Gaza's households; the corresponding share in the West Bank is 25 percent. The size category "12 or more persons" a lone, has the largest proportion of households in Gaza, accounting for over 15 percent of households, which is double that of the West Bank (7.5 percent).

The differentials in the size distribution of households between the West Bank and Gaza Strip cannot be explained by type of residence. Figure 2.13 shows that refugee camps have larger households overall, but there are only slight differences

Figure 2.13 Distribution of households by size, residence and area
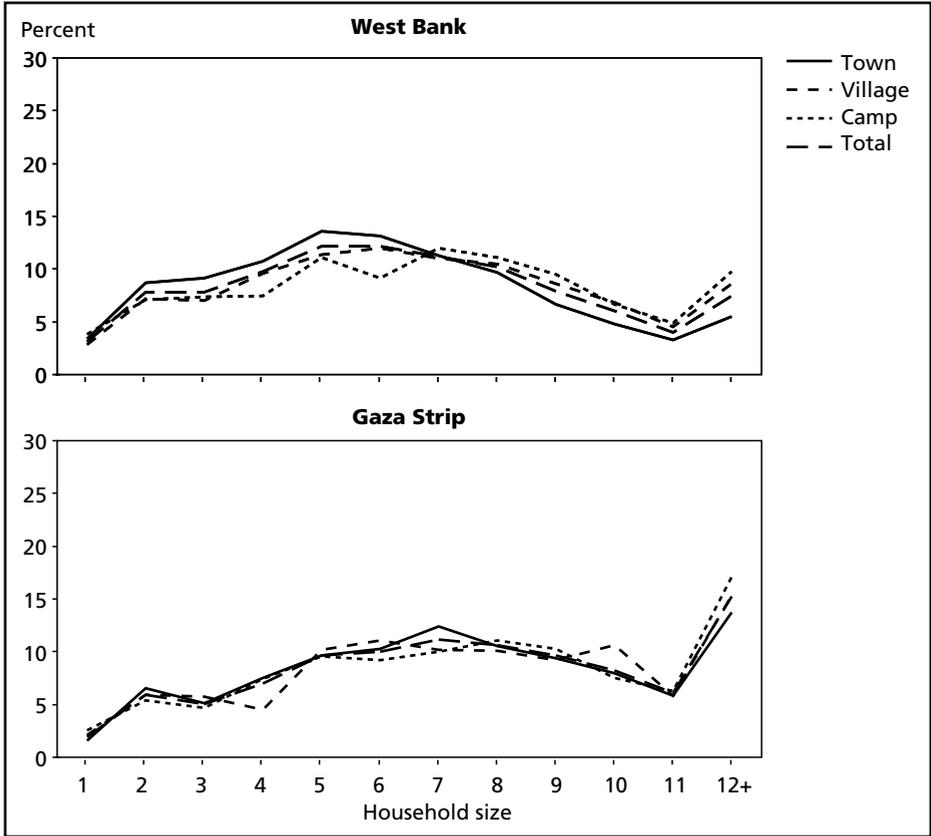
in the distribution of household size among types of residence within the West Bank or Gaza Strip. Regional geography seems more important than type of residence in accounting for differentials in household size.

There are also some noteworthy regional differences in the distribution of household size within the two areas (see, Figure 2.14). The regional differentials probably reflect prevailing fertility rates since mortality levels are not much different among the regions. Thus, average household size increases consistently if we move from the North to the South, ranging from 6.3 persons in Northern West Bank to 7.9 persons in Southern Gaza. A closer look at the data reveals interesting regional differentials, where the Northern and Central West Bank regions are distinguished from the Southern West Bank and Gaza regions. The Northern and Central West Bank have low average household sizes and similar distributions compared to the rest. One the other hand, the Southern West Bank is quite similar to the Gaza regions in terms of household size and distribution. In addition to its higher levels of fertility, Hebron has a different economy, different kinship structures and patterns of land tenure than

Figure 2.14 Distribution of households by size and region
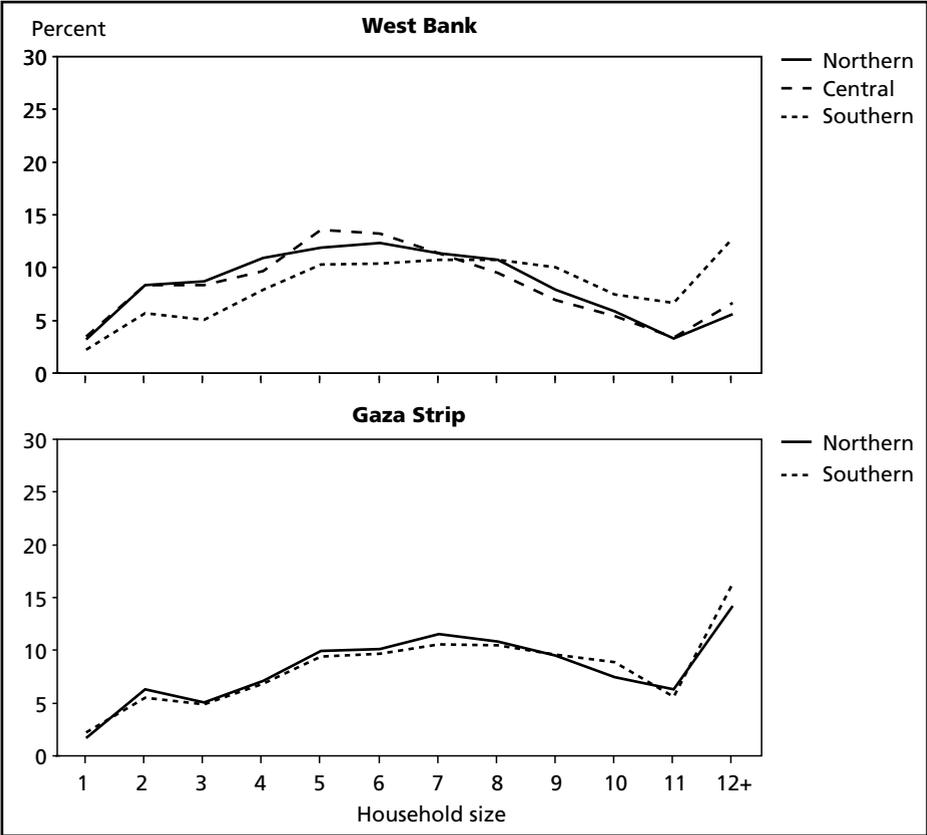
the other West Bank regions. These factors might explain the deviation of Hebron from the rest of the West Bank with regard to household size.

In general, households headed by men tend to be larger than those headed by women: Male-headed households have 7.2 persons on average compared to 3.9 persons in female-headed households. However, female-headed households are larger in the Gaza Strip (4.7 persons) than the West Bank (3.7 persons) on average. The difference in the size distribution of households headed by men and women is even more striking.

As shown in Figure 2.15, female-headed households are concentrated in the smaller size categories, while male-headed households are more normally distributed. Thus, the majority (55 percent) of female-headed households, compared to about 14 percent of male-headed households, has three persons or less. In fact, over one-fourth of female headed households consist of loners. The corresponding proportion for male-headed households is less than one percent. The opposite is true for larger size categories, as the proportion of households decreases more or less

Figure 2.15 Distribution of households by size, headship status and area
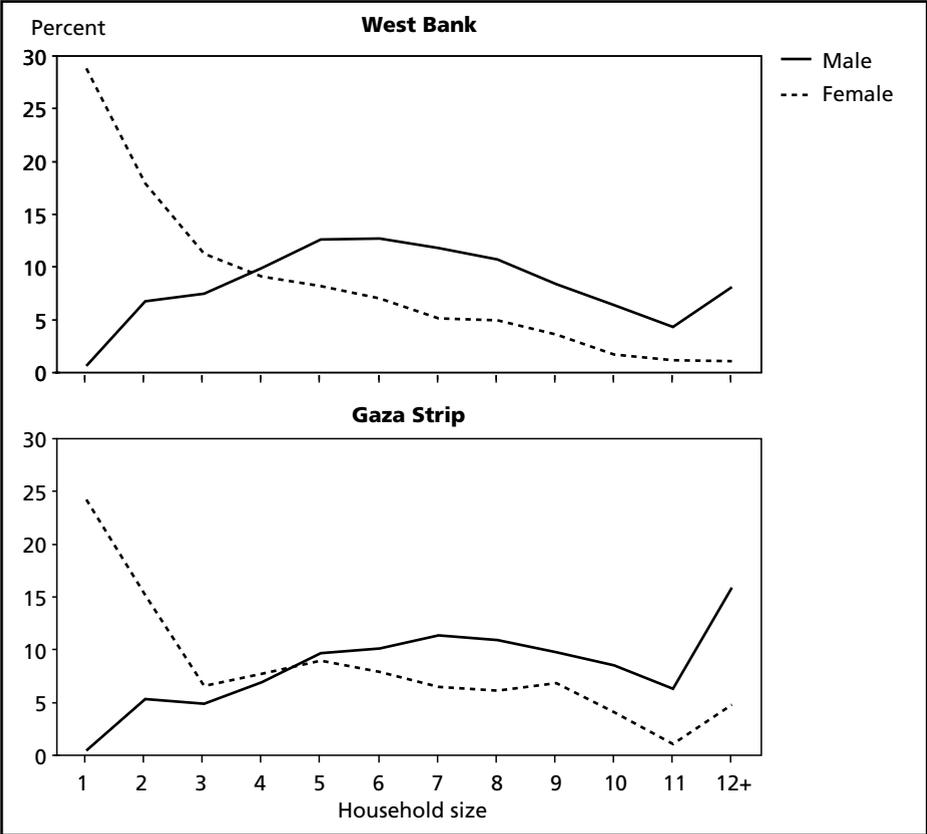
consistently with size for female headed but not male-headed households. This is probably due to life cycle stages, with married family households having more children present than families headed by an older female widow for example.

An examination of differential household size among household types may shed some light on the effect of life cycle events such as marriage and birth. As shown in Table 2.10, only two household types have mean sizes above the overall average of seven persons: One spouse with children and others (7.7 persons) and married couples with children and others (10.1 persons). Aside from loners and married couple households, one adult with others and one adult with children are the two types with the least number of household members, 3.9 and 4.4 persons, respectively. The married couples with children households have smaller sizes than the overall average, implying that the presence of children alone does not translate into larger households. It is the extended structure of households, particularly the presence of relatives and unrelated persons, that makes a household larger than others. This conclusion seems to hold in both the West Bank and Gaza Strip, although the latter has larger households on average than the former regardless of household type.

In both the West Bank and Gaza Strip, household size varies with the education and refugee status of the head. As shown in Figure 2.16, refugees have larger households (7.2 persons) than non-refugees (6.8 persons) on average. The difference is due to the larger proportions of very large households (12 persons or more) among refugees than non-refugees in Gaza Strip. This is clearly seen by comparing the two distributions of refugee and non-refugee households by size in the West Bank and Gaza Strip (see, figure 2.16). The size distributions in the West Bank are virtually identical. In the Gaza Strip, however, the proportion of households with eight or more members is slightly larger among refugees than non-refugees. For example, about 16 percent of refugee households have at least 12 members compared to 14 percent among non-refugees. Housing squeeze and fertility levels among camp dwellers may account for the disparity in household size between refugee and non-refugees.

Table 2.10 Average household size by household type and area

Household Type	West Bank	Gaza Strip	Total
Simple			
Loner	1.00	1.00	1.00
Married couple only	2.02	2.02	2.02
One spouse with children	4.16	4.98	4.36
Married couple with children	6.58	7.22	6.75
Complex			
Married couple with others, no children	4.87	5.45	5.08
One spouse with children and others	7.07	8.96	7.71
Married couple with children & others	9.75	10.73	10.15
Head with others	3.74	4.36	3.88

In general, households whose heads have higher education are smaller on average than those with lower education. The mean household size for those with at least preparatory education is below the national average while for those with less than preparatory is above it. Household size does not decrease consistently with higher levels of education. The average household size of 7.4 for those with elementary education is well above the corresponding one of seven persons for those with less than elementary. The non-linear relationship between household size and education is shown more clearly in Figure 2.17.

Households with the least education have greater proportions of smaller families as well as very large ones compared to other households. One possible explanation for the observed relationship is age. Household heads with little or no education are older on average and hence the disproportionate share of smaller households, especially one-person households. Otherwise, the shape of the size distribution for those with at least secondary education seems to deviate from the rest, with

Figure 2.16 Distribution of households by size, refugee status of the head and area
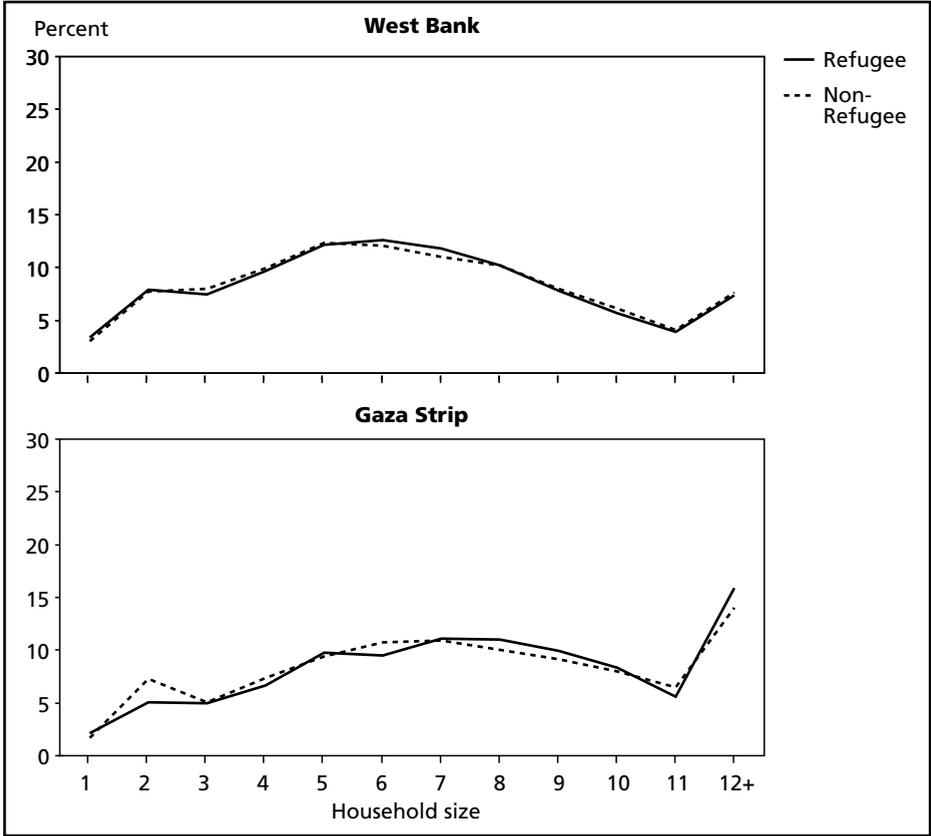
disproportionately less large families (eight or more persons) and more medium size families (three to seven persons) than the rest. This is not surprising given the fertility levels and age structure of this education group compared to the others. Essentially the same picture emerges in the Gaza Strip and the West Bank, with geographic differences in household size remaining regardless of education.

2.4 Living arrangements of children and the elderly

Living arrangements are considered an important indicator of welfare (McLanahan 1985). This is especially true in Palestinian society where filial relations are relatively strong and where families provide much of the economic and social support needed by dependents. With the lack of an adequate social welfare system, children and

Figure 2.17 Distribution of households by size, education of the head and area
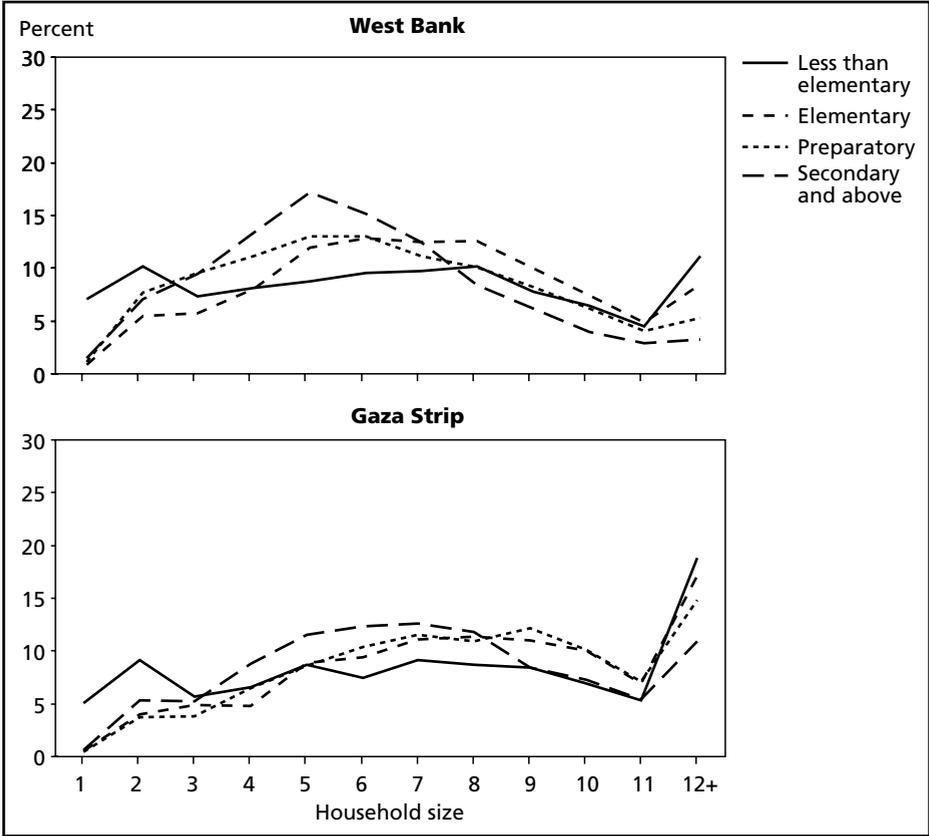
the elderly are economically dependent on other family members of working age. Demographic changes during the most recent past, namely rising fertility and declining mortality, led to a dramatic increase in the size of Palestinian dependents.

Many factors could contribute to changes in the living arrangements of children and the elderly. Increased attention has been given to this topic both in a developed and developing countries' context due to the rise of marital disruption brought about by affluence or economic hardship (Richter 1988; Bumpass 1984). The death of a spouse or marital dissolution has dramatic consequences for dependents, especially children. It cannot be assumed, however, that such events lead to the rise of single-headed households and hence hardship in our context. The resort to an extended family situation is, rather, the more likely outcome. Yet, the extended-household milieu has negative consequences for children, including lower educational achievement and child labor. While it is widely accepted that children are economically vulnerable in the Palestinian context, questions may be raised concerning the vulnerability of elders.

Traditionally, the elders enjoyed remarkable power and status within the family and community at large in Arab society (see, Barakat 1985). There is reason to believe that with the advent of modernization and economic change much of that power is lost to younger generations. This is especially the case in the Palestinian territories whose populations have experienced massive social and economic structural changes since the onset of occupation in 1967. The rising power of the *shabab* relative to that of the elders was especially noticeable during the Intifada period. These changes have obvious consequences for the living arrangements and hence welfare of the elderly population for years to come.

Children

The living arrangements of children by age are shown in Table 2.11. Included here are six household types with children. Overall, about two out of every three children live in "married couple only" households. As expected, a very small proportion of children live in single-parent households, amounting to less than two percent. The rest, representing about 30 percent of children, live in extended households, especially married couples with other relatives and/or non-relatives.

The overall picture does not change dramatically when living arrangements are examined according to the age of children: Most live in "married couple only" households with the second largest proportion living in "married couple with others" household type. There is an interesting change in the living arrangement of younger children aged 0–4, compared to the rest of children. They are more likely to live in extended households, married couples with others, than older children. While

34 percent of children age 0–4 live in extended households, only 26 percent of older children live in this kind of household. Conversely, about 70 percent of children aged 5–9 live in married couple only households, compared to a bout 63 percent of children aged 0–4. These differences appear to be due to the patrilocal feature of Palestinian household structure, where some younger couples begin their married life with the husband's parents, establishing their own independent household only after the arrival of a few children. Such a strategy of household building seems rather common in Palestinian society.

This pattern seems to hold in both the West Bank and Gaza Strip. There is little difference in the living arrangement of children between the two areas, aside from the fact that more children live in extended households in Gaza than the West Bank. Slightly more than one out of every three children live in extended household in Gaza Strip compared to about one out of every four in the West Bank. The same difference of about 10 percent is observed in the living arrangement of children in nuclear households. This is somewhat expected, given the higher prevalence of extended household structures in Gaza than the West Bank.

Table 2.11 Distribution of children (age 0–14) by household type, age and area

| Household type | Age (years) | | | |
	0–4	5–9	10–14	Total
West Bank				
Simple				
One spouse with children	0.7	1.8	2.9	1.6
Married couple with children	68.2	74.2	71.6	71.1
Complex				
Married couple with others, no children	0.2	0.3	0.5	0.3
One spouse with children and others	1.7	1.4	1.3	1.5
Married couple with children & others	29.0	22.1	23.0	25.1
Head with others	0.2	0.3	0.6	0.3
Total (n)	13033	10560	9386	32979
Gaza Strip				
Simple				
One spouse with children	0.7	2.1	3.2	1.8
Married couple with children	54.0	63.3	61.3	58.9
Complex				
Married couple with others, no children	0.4	0.3	0.4	0.4
One spouse with children and others	2.4	1.5	1.5	1.9
Married couple with children & others	42.3	32.4	33.1	36.7
Head with others	0.1	0.4	0.5	0.3
Total (n)	7999	6208	4861	19068

The elderly

Unlike children, most of the elderly population lives in extended households. As shown in Table 2.12, about 50 percent of elders live in "married couple with others" household type. This is traditionally the typical pattern of living arrangement among the elderly where many turn to one of their children's homes for support during old age, and especially upon widowhood. The nuclear type, containing a conjugal family, is the second largest household type with elders, accounting for almost one-fifth (19 percent) of all elderly persons. The same proportion of elders live either alone (seven percent) or with a spouse only (11 percent). It is quite remarkable that almost one out of every five elders lives without children or the support of other family members. Yet, while the proportion of elders living alone is larger than the corresponding national proportion, it is still relatively small.

However, these patterns hide important gender differences in the living arrangement of elders. The proportions of male elders living in nuclear households, whether with or without children, are significantly larger than their female counterparts. Over 45 percent of male elders live in nuclear households, of which 30 percent are with children. The corresponding figure for females is merely 16 percent. On the other hand, larger proportions of females live alone or in extended households than males. For example, while 11 percent of female elders are loners, only about two percent of male elders are. In general, larger proportions of females reside in households with one spouse present, along with other children or relatives. These differences are the result of various factors, the most important of which is perhaps the gender discrepancy in marital status between the two, and the greater likelihood of remarriage among older males after widowhood and divorce in particular.

Table 2.12 Distribution of elderly (age 65+) by household type, sex and area

Household Type	West Bank			Gaza Strip		
	Male	Female	Total	Male	Female	Total
Simple						
Loner	2.0	12.5	7.3	1.5	8.0	4.9
Married couple only	15.0	8.5	11.7	13.5	7.8	10.5
One spouse with children	2.3	6.2	4.3	2.1	3.6	2.9
Married couple with children	35.5	9.8	22.6	17.2	3.5	9.9
Complex						
Married couple with others, no children	2.4	3.1	2.8	2.1	3.9	3.1
One spouse with children and others	2.6	4.7	3.7	4.5	4.7	4.6
Married couple with children and others	39.1	49.4	44.3	58.9	63.4	61.3
Head with others	1.2	5.5	3.4	0.2	5.2	2.8
Total (n)	1370	1395	2765	498	559	1057

While the overall living arrangements of the elderly described so far seem to reflect the situation in the West Bank rather than Gaza Strip, the general patterns, especially with respect to gender, hold true in both areas. The main difference between the two areas lies in the proportions living in extended structures as opposed to nuclear structures. Thus, while 61 percent of Gaza's elders live in "married couple with children and others" household type, only 44 of the West Bank's elders live in this household structure. Similarly, about 23 percent of elders in the West Bank live with a spouse and children compared to only about 10 percent of elders in the Gaza Strip. These are significant differences indeed but may reflect the predominance of extended household structure in Gaza more generally than anything else.

2.5 Conclusions

The primary purpose of this chapter has been to describe basic features of Palestinian families and households in the West Bank and Gaza Strip, using evidence from the 1995 demographic survey. The chapter documents the shape of Palestinian households in terms of membership, living arrangements, headship, as well as their familial and generational composition. Variations in the structure and size of households across some regional and socioeconomic characteristics are also presented.

The most common form of living arrangements reflected in the data is an independent nuclear household. For one thing, members of the "conjugal family," namely children, head and spouse, account for the vast majority of the household population. Household membership patterns show a striking gender difference in virtually all categories, not the least of which are heads and children. It was suggested that this pattern is a reflection of many factors including sex differentials in age at marriage as well as patriarchal features of Palestinian households. Second, extended family households were a minority of households, especially in the West Bank. Furthermore, nuclear households are less common in the refugee camps and towns than villages, and are more prevalent in the North. These regional differences persist when controlling for the effects of education or refugee status of the head. It was concluded that the nuclear household structure does not appear to be a feature of urban life or modernization in the Palestinian case. Rather, this pattern may reflect more a housing shortage than a cultural norm.

When examined from a life-cycle perspective, using a more detailed household classification, the nuclear household structure is largely a "married couple with children only" type, accounting for about 60 percent of all households. On the other hand, single-parent households, which have been on the increase in many countries, are still quite rare in the Palestinian context. However, male-headed house-

holds are more likely to be nuclear than female-headed households. For example, there is significantly larger proportion (44 percent) of female-headed households in the "one spouse with children" category than male-headed households (one percent).

Also rare are households with three or more families. Most Palestinian households are one-family households, with only five percent of all households have three or more families in them. Likewise, the two-generation household is the predominant form, representing about 72 percent of all households. Overall, about one fifth of households have three to four generations. Yet, multi-family and multi-generation households are more common in Gaza and refugee camps than other areas.

Most Palestinian households are relatively large in size with about seven members. Average household sizes range from a low of 6.2 persons in West Bank cities to a high of eight persons in the Gaza Strip camps. Lower fertility levels, particularly, in the West Bank, are probably the reason for the observed geographic differentials in household size. Other regional differentials in household sizes seem to confirm this conclusion. Household sizes also vary with the education, sex and refugee status of the head. The more educated, non-refugees, and females head households that are concentrated in the smaller size categories.

As expected, the overall headship rates among the adult population reveals a gender as well as age dependent process of heading an independent household. The proportion of females heading their own household increases consistently with age. About one out of every ten women age at least 45 years heads an independent household. It appears that female headship in Palestine is largely due to death of a spouse or divorce at old age. This conclusion is confirmed when examining headship rates by marital status.

Overall, about eight percent of households are female-headed. Female-headship at the household level is slightly higher in the West Bank than the Gaza Strip and in camps than villages or towns. The results seem consistent with general expectations based upon a patriarchal family structure.

Baseline data on the living arrangement of children and the elderly reveal that most children live in "married couple" households while the majority of elders live in extended households. Two other trends were documented. First, younger children, aged 0–4, are more likely to live in extended households compared to the rest. This appears to be due to the patrilocal feature of Palestinian household structure, where some younger couples begin their married life with the husband's parents. Second, larger proportions of females live alone or in extended households than males. Almost one out of two male elders live in nuclear households, of which 30 percent are with children. The corresponding figure for females is merely 16 percent. These differences are probably due to greater remarriage rates among older males after widowhood and divorce.

Chapter 3 Marriage Patterns

Liv Jorunn Stokke

Nuptiality is an important proximate determinant of fertility (Bongaarts 1978) and it explains much of the fertility variability in this population (see, Chapter 4). Marriage is also linked to mortality and migration, but to a lesser extent than fertility. This chapter will analyze marriage patterns of Palestinians in the Occupied Territories, examining characteristics of the formation of marital unions in five sub-regions: Northern West Bank, Central West Bank (including East Jerusalem), Southern West Bank (Hebron), Northern Gaza Strip, and Southern Gaza Strip.

The main questions addressed in this chapter are:

- At what age do Palestinian women and men enter into marriage?

- What characterizes the nuptiality regimes of Palestinians in the West Bank and Gaza Strip? Do these regimes differ from those of other Arab countries?

- What role do kinship marriages play: how high is the prevalence of endogamy?

- What effects has the Intifada had on marital unions?

- What factors determine differentials in the rate of marriage among Palestinian women.

Current marital status data from the household schedule are used along with reported age at first marriage. The latter can be influenced by recall errors and by normative behavior, but is believed to be accurate for younger cohorts. Since this is a sample survey, conclusions about minor differences should be treated with caution.

3.1 Age at first marriage

In populations where extra and pre-marital fertility is rare, age at first marriage is important because it determines the number of years a woman is exposed to childbearing. Women who marry early tend to have more children than those who marry late. In the West Bank and Gaza Strip, this effect is particularly strong because the marital fertility rates do not vary much (Randall 1997; Stokke 1997). Furthermore,

there is evidence that teenage pregnancies increase mortality risks for both mother and child. Age at marriage is also of interest because it has a potential impact on the relationship between men and women in a household. The younger a girl is when she marries the more likely that her mother in law, or mother in law together with the woman's husband, who takes important decisions in the household. In this population, marriage is also one of the major determinants of internal female migration and thus age at marriage influences age-specific migration patterns (see, Chapter 7).

Median age at first marriage (the age by which half of the women or men who are married had got married) is one measure of age at first marriage. It is not influenced by "outliers" (either very young or very old), and is robust with respect to misreporting. It does not however take account of proportions never-marrying and in younger age groups is influenced by selection – those who are married will have done so at younger than average ages. For this reason, medians are presented for women aged 25 upwards and men aged 30 upwards.

Over the last 40 years, there has been a slight increase in median age at first marriage for women (Table 3.1). Male age at first marriage shows no consistent trend over time, although men in Southern West Bank and the Gaza Strip marry earlier than men in the Northern and Central West Bank.

Table 3.1 Median age at first marriage by current age; men and women by residence

| | Northern West Bank | | Central West Bank | | Southern West Bank | | Northern Gaza Strip | | Southern Gaza Strip | |
Age	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
25–29	-	20	-	19	-	19	-	18	-	19
30–34	25	20	25	19	24	19	23	18	24	19
35–39	25	19	23	18	22	18	22	18	23	19
40–44	24	19	23	18	22	18	22	19	22	20
45–49	25	20	24	19	23	18	23	19	23	20
50–54	25	20	25	18	23	18	24	18	24	18
55–59	24	18	24	18	22	17	22	17	21	18
60–64	25	17	24	17	22	16	22	17	22	17
65 or over	23	16	23	16	23	16	20	16	22	17

Table 3.2 Median age at first marriage by age, sex and education

| | Less than elementary | | Elementary | | Preparatory | | Secondary or more | |
Age	Male	Female	Male	Female	Male	Female	Male	Female
25–29	-	18	-	17	-	18	-	21
30–34	22	18	22	17	24	18	26	22
35–39	21	17	22	17	22	18	26	22
40–44	21	18	21	18	22	19	26	22
45–49	22	19	23	18	23	19	26	23
50–54	23	18	24	18	24	18	26	24
55–59	22	17	23	19	22	19	25	21
60–64	22	17	23	19	23	23	26	22
65 or over	23	16	23	16	20	16	22	17

Secondary education increases age at first marriage

Age at first marriage both influences and is influenced by education and labor force participation. In this population, education patterns have changed significantly over recent years and this must be taken into account when examining marriage trends. In the population as a whole (Table 3.2) it can be seen that only secondary education has a significant impact on age at first marriage, raising it for both men and women. Within the other educational groups there is a slight trend towards earlier age at marriage over time for both sexes, although at the population level this is masked by the increasing levels of education, especially increasing proportions of both sexes with secondary education. Regional patterns (Tables 1a-e in Appendix) echo the overall population pattern with those women who have completed secondary education in all regions having substantially higher ages at first marriage. These differences are much more marked for the older cohorts and have diminished down to two or three years difference for those in their twenties who include significant numbers of well-educated women. Thus, when secondary education was rare and the women who had achieved it were socially unique, it had a much greater impact on marriage behavior than now.

It has been claimed that due to the Gulf War and recent economic crises, some put into the marriage contract that the family of their future husband must pay for the completion of their education; and also that they can postpone childbearing until education is completed. If this is indeed the case, these women will marry earlier than they normally would have done had their own family paid for their education. There is however no evidence from the survey that this is occurring. If it were, then women with secondary education would have longer intervals between marriage and first birth than those with less education; this is not the case. In fact, they have slightly shorter first birth intervals than less educated women.

Singulate Mean Age at Marriage (SMAM)

The Singulate Mean Age at Marriage (SMAM) is an indirect way of calculating mean age at marriage (Hajnal 1953) using proportions single classified by age. Thus, the SMAM is the mean number of years spent single before marriage for those who marry. It is a cross-sectional measurement, which is most informative when nuptiality has been fairly stable. SMAMs use the whole of the age distribution of those married and are sensitive to changes in proportions ever-marrying at older ages. For these reasons, where either a substantial proportion of people marry quite late, or there have been increases in proportions never marrying, the SMAM is often higher than the median age at marriage, as is the case here. It is however a useful summary tool for comparisons between different subgroups of a population.

Table 3.3 reflects the earlier data on median age at first marriage with both regional and gender differences. The SMAM is lowest for women living in the Northern Gaza Strip and highest for women from the Central part of the West Bank. Male SMAM is highest on the Northern West Bank and lowest among men in the Northern Gaza Strip. The SMAMs suggest that both men and women in the Gaza Strip, and in particular the northern part marry about 2 years earlier than those living on the West Bank.

Table 3.3 Singulate mean age at marriage; men and women by residence

Residence	Men	Women
Northern West Bank	26.7	22.0
Central West Bank	25.7	22.6
Southern West Bank	25.0	22.0
Northern Gaza Strip	23.3	19.6
Southern Gaza Strip	24.4	21.4

The data on median age at first marriage and SMAMs both indicate that this is a population with a young age at marriage, especially for men. Although there is some variability by region and education, the differentials are not very noticeable.

3.2 Proportions marrying and married

Marriage is the only acceptable way couples can live together in the Arab world, and this is also the case on the West Bank and in the Gaza Strip. Thus, the proportion of currently married individuals is high relative to other countries.

More men married than women
Marriage is almost universal for men, but not for women This contrasts with the situation in Jordan, where, according to the DHS of 1990 marriage was almost universal for women by the end of their reproductive age (Zou'bi et al. 1992); and the same was found to be the case also in Egypt (Abdel-Azeem et al. 1993). Although the majority of women living on the West Bank and in the Gaza Strip are married by the end of their reproductive age, the figures are not as high as in Jordan or Egypt. There is some evidence that this is a relatively recent change in the Palestinian Occupied Territories because the proportions never married for those over 55 are much lower.[1] There are few men aged 35–39 who have never been married, whereas,

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[1] It was noted earlier that there are surprisingly high sex ratios for old people. It is possible that old unmarried women have been selectively omitted.

depending on region, between 8 and 17.3 percent of women 35–39 have never married. The proportions of women who never marry differ both by region and by educational achievement (see, Figures 3.1 and 3.5 and tables 2a–e in Appendix).

In the West Bank, around one quarter of secondary educated women never marry – a state which has existed for a long while, although the actual numbers of older secondary educated women are small. For those with elementary or preparatory education, the majority of the West Bank women, around ten percent never marry. Younger women with no education have higher proportions single, but they are only a small minority of their age group. Nevertheless it seems that these uneducated women are not desirable marriage partners. This group has the highest proportion of women unmarried in Gaza Strip where a higher percentage of women are married overall especially amongst elementary and preparatory educated women. This is, therefore, far from being a population with universal female marriage, and those at the educational extremes are least likely to marry, either because of choice, lack of a suitable husband, or undesirability.

Why is there such variation in the proportion of women who have married? Is there a surplus of Palestinian women in the age group 30–49, which results in too few men for this age group of women to marry? Where have all the men gone? Are they in the Gulf and single? Do men from the Northern West Bank simply marry Israeli Arab women? Or are the men studying or working abroad and marrying foreigners? Alternatively, are they planning to come back to the area to marry a Palestinian woman, perhaps from younger age groups? Or are these women not interested in getting married?

Figure 3.1 Proportion never married by sex, Northern West Bank
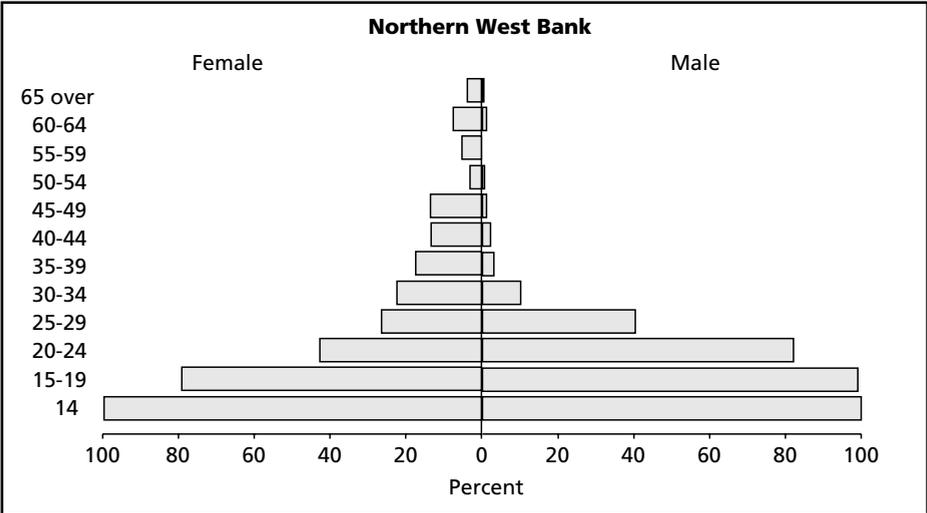
According to Manasra (1993) women over the age of 25 have fewer opportunities of marrying. Hammami (1993) in her analysis of unmarried women aged 30 and above, found that they had higher educational achievement than married women in the same age groups did and that a higher percentage of them worked outside the home. These are two factors that can be both a cause and an effect of their being unmarried. A new and interesting effect of unmarried women working outside the household, is that now they bring back money to the household, whereas previously,

Figure 3.2 Proportion never married by sex, Central West Bank
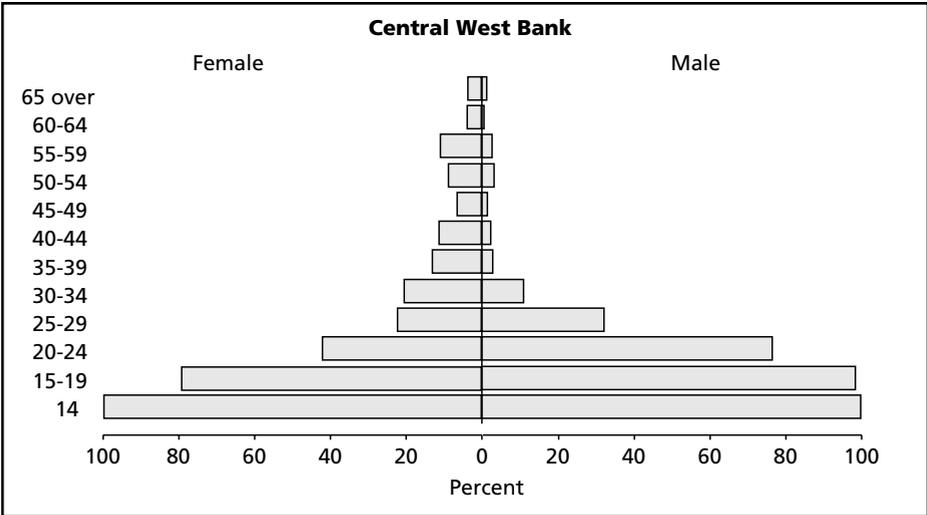
Figure 3.3 Proportion never married by sex, Southern West Bank
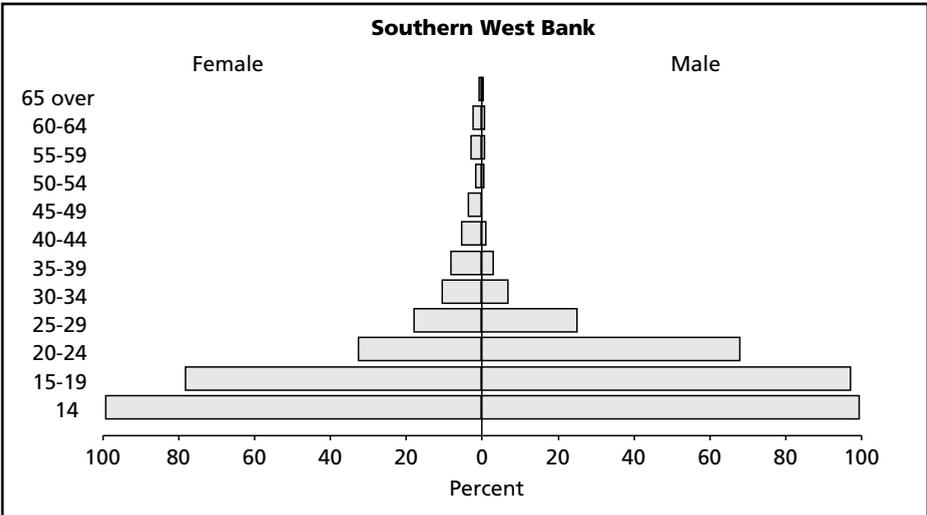
unmarried women tended to work for free in the household. This new situation might increase their value to their father's household and dissuade him from actively seeking marriage partners for them. As a consequence, women stay unmarried longer. However, it is clear from Figure 3.1 that the main cause is the dearth of men of marriageable age. Between the ages of 35 and 60 there are virtually no unmarried men available.

Figure 3.4 Proportion never married by sex, Northern Gaza Strip
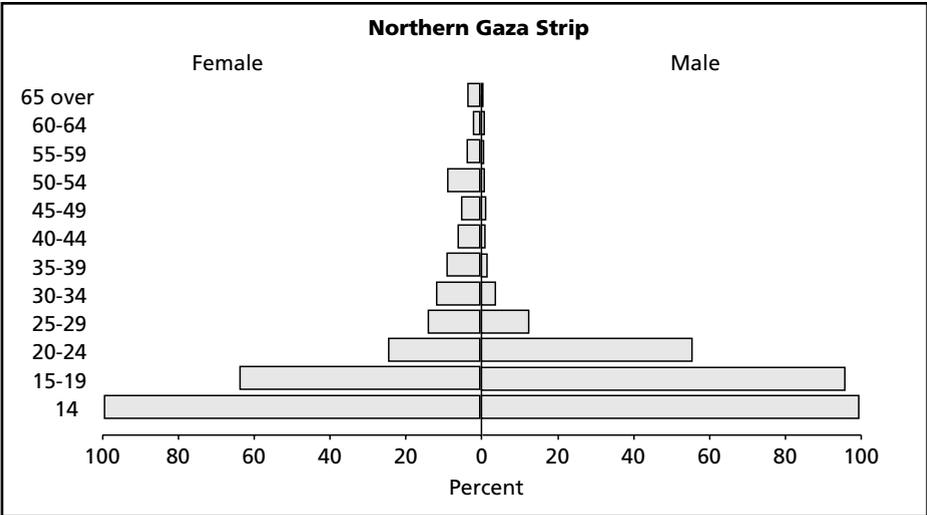
Figure 3.5 Proportion never married by sex, Southern Gaza Strip
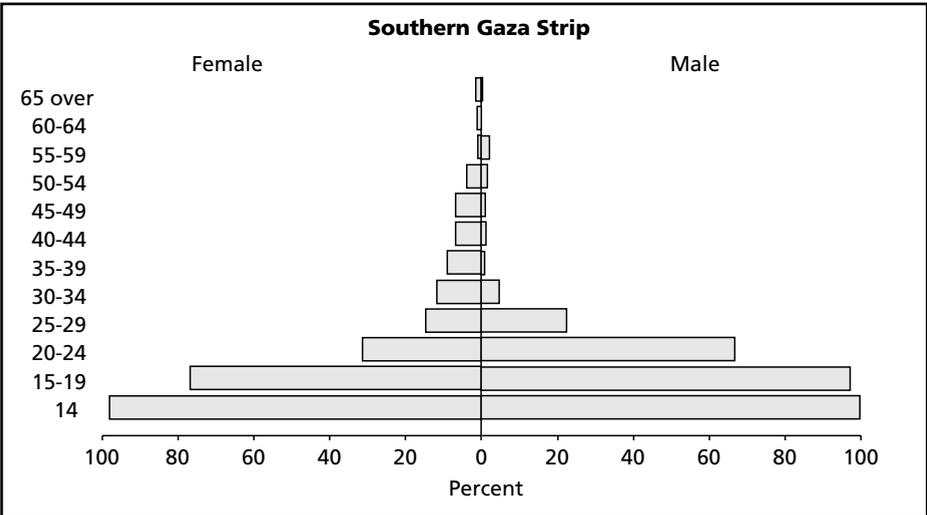
Low levels of divorce and separation

High incidence of divorce and separation can have an impact on fertility, but in this population very low numbers of both men and women are separated and divorced (Figures 3.1 – 3.5; Tables 2 a-e in Appendix). Several explanations can be put forward for this. In Palestinian society, and in most of the Muslim world, men can divorce more easily than women can. According to Manasra (1993), a married Muslim woman lives under the ever present threat of being divorced by her husband without herself being able to divorce him, because of the social stigma attached (Hammami 1993) or the fear of losing her children. There are, however, a number of situations in which a woman can ask for a divorce; if her husband fails to fulfil his marital duties; if he does not support her economically, and if he is absent from the household for a prolonged period. The highest prevalence of divorced women is found in those aged 40–44 living in Northern and Southern Gaza Strip (four percent).

Comparing prevalence of divorced/separated women from the Occupied Territories with some other Arab countries, we can see that overall levels in the region are very similar (Table 3.4) and rather low. It is interesting to note that figures for Tunisia are at about the same level as for the other countries, with the exception of younger women. In Tunisia, through the Code of Personal Status of 1956, women

Table 3.4 Currently divorced/separated women, Egypt, Jordan, West Bank/Gaza Strip, Tunisia and Yemen (percent)

Age	Egypt (1991)	Jordan (1990)	West Bank/ Gaza Strip (1995)	Tunisia (1988)	Yemen (1991/92)
15–19	0.1	0.2	0.4	3.1	1.0
20–24	1.2	0.4	1.3	2.6	1.8
25–29	1.8	1.9	1.4	2.1	3.4
30–34	2.5	1.5	2.1	1.8	3.3
35–39	1.9	1.6	2.2	2.1	2.5
40–44	2.2	1.3	2.9	1.9	1.3
45–49	1.4	0.8	2.9	1.3	2.6

Sources: Egypt:Abdel-Azeem et al. (1993); Jordan: Zou'bi et al. (1992): Tunisia: Aloui et al. (1989); Yemen: Central Statistical Organization et al. (1994).

Table 3.5 Marriage frequency among men and women by residence (percent)

Marriage frequency	Northern West Bank	Central West Bank	Southern West Bank	Northern Gaza Strip	Southern Gaza Strip
Men					
Married once	92.1	90.5	88.8	87.8	86.4
Married more than once	7.9	9.5	11.2	12.2	13.6
n=(100%)	4550	4131	2945	3184	3066
Women					
Married once	97.3	96.3	96.0	95.4	94.6
Married more than once	2.7	3.7	4.0	4.6	5.4
n=(100%)	5295	4825	3315	3583	3635

have had the right to divorce and we would therefore expect the figures for Tunisia to be higher. The "high" figures for the age cohorts 15–24 years might indicate that the 'liberal' legal framework Tunisian women were given after the independence in 1956 has only recently started to have effects (UNDP 1995).

Another difference between male and female marital behavior in the West Bank and the Gaza Strip is that men tend to remarry more than women (Table 3.5). This goes for both married and divorced men. Both widows and divorced women have problems finding new spouses both because of age and the social stigma connected to a divorce (Manasra 1993). Given that women are more likely to be widowed than men (because of spousal age differences and higher male mortality) this only exacerbates the differences in the sex-specific nuptiality regimes.

Low frequency of polygamy

One form of marital behavior, which could alleviate the problem of a shortage of men, is polygamy, which is permitted by Islam but restricted to four wives. Polygamy is relatively uncommon however (Table 3.6), being most frequent among men born between 1910–19 with eight percent of them having two wives and one percent of them having three wives. Five percent of men born between 1940–49 are married to two women and polygamy is absent in the youngest age cohorts, those born between 1970–79. This might represent a decline in polygamy or equally an age effect whereby only old men have the opportunities to marry "polygamously".

Regional patterns show little variability save that there are fewer polygamous men in the Northern West Bank (Table 3.7). A comparison with other Arab countries shows similar patterns. For example, about six percent of married men in Jordan

Table 3.6 Men in marital union by number of wives and birth cohort (percent)

Number of wives	1910–19	1940–49	1970–79
1 wife	92	94	100
2 wives	8	5	0
3 wives	1		
4 wives			
n=(100%)	426	2316	11296

Table 3.7 Men in marital unions by number of wives and residence (percent)

Number of wives	Northern West Bank	Central West Bank	Southern West Bank	Northern Gaza Strip	Southern Gaza Strip
1 wife	97.8	96.3	95.0	96.0	94.8
2 wives	1.9	3.6	4.2	3.5	4.7
3 wives	0.3	0.1	0.7	0.4	0.4
4 wives	0.0	0.1	0.1		0.0
n=(100%)	4484	3539	2896	3139	2980

reported having more than one wife (Jordan Department of Statistics 1996), four percent of women in Egypt were in polygamous unions in 1991 (Abdel-Azeem et al. 1993), and a field study in Damascus conducted in the 1970s showed that only two percent of married men had more than one wife (Barakat 1993). Thus, polygamy here is about as common as in other Arab countries.

3.3 Marriage preferences and practice: The prevalence of endogamy

The family, and in particular the parents play an important role in the process of finding an appropriate marriage partner in Palestinian society. Marriages are often arranged (Manasra 1993; Tuastad 1993,1996; Tucker 1993; Khoury and Massad 1992; Ata 1986; Granqvist 1931) as is the case in most of the Arab world. The mother plays a more informal role in this process, while the father is the one who makes the final decision (Tuastad 1993,1996). Endogamy is an important feature of Arab marriage – marriage within the same lineage, sect, community, group, village or neighborhood. Marriages between first cousins and between blood-related kin are the most common forms of endogamy in this part of the world (Holy 1989).

Several explanations have been put forward for endogamy, including a lower bride price (*mahr*), a wish to retain family wealth and property, and the importance of strengthening kinship solidarity by preventing the separation of the bride and her immediate kin (Bittles 1994; Barakat 1993; Barth 1970). Hammami (1993) writes "Lineage solidarity, property and family labor maintenance or distribution were thus the primary determinants, not only of who married whom, but also at what age". She claims further that this pattern has changed, and that kinship-based marriage arrangements now exists to preserve the identity of dispersed communities.

It has been suggested that kinship-based endogamy could have consequences for offspring in terms of genetic disorders, congenital malformations, mortality and reproductive wastage (El-Hazim et al. 1995) a claim borne out by the mortality data (Chapter 6). It has also been claimed that the fertility rate is higher in marriages within the lineage than other type of marriages (Wolf 1972) partly because closely related couples are thought to be more traditional and thus have higher fertility preferences.

This is not borne out here where the total marital fertility rates were almost identical within each region regardless of the kin relationship between spouses.

Past research has been preoccupied with the patrilateral relationship between spouses. This is the most dominant form of endogamy in the West Bank and Gaza Strip. The patrilateral parallel cousin marriage is the marriage of a man to his father's

brother's daughter "bint amm"), or seen the other way around, as it was done in the survey, the marriage of a woman to her father's brother's son "ibn amm") (Holy 1989).

In Egypt, women and men prefer different type of kinship marriages due to their different social roles and interests (Rugh 1985). Women prefer to reinforce affective, indulgent ties with maternal relatives, while men prefer to strengthen their jural ties to male kin and thus to strengthen patrilateral relations. Women thus rank preferred kin marriages in the following order:

1   Mother's sister's son

2   Mother's brother's son

3   Father's brother's son

4   Father's sister's son.

Men have a rather different preferred ranking:

1. Father's brother's daughter

2. Father's sister's daughter

3   Mother's brother's daughter

4   Mother's sister's daughter.

Another way of creating some of the advantages of kinship marriage, if appropriate cousins of the right age and inclination are not available, is to contract sibling marriage between two unrelated families where sisters from one family marry brothers from another family. "Badal", or exchange, marriage is also common, especially in the rural areas, whereby a family "takes a bride for a groom from another nuclear family or vise versa. In the DS , women were asked the following question: "What is the type of relationship between you and your first husband?" This question was also asked of current husband in cases where the woman had been married more than once. Thus, we are able only to analyze the frequency of kinship marriages based on a blood relationship.

Two different cohorts of women (born 1940–49 and 1960–69) were compared to establish both the levels of kin marriage and whether they have changed over time. Twenty eight percent of women born between 1940–49 have a husband who is their first cousin (Table 3.8a) with the "Ibn amm" relationship (father's brother's son) as the dominant cousin type (16 percent). The second in popularity is "Ibn amma" (father's sister's son). If men's and women's preferences are the same as in Egypt, it is clear that male preferences dominate. A further 22 percent of women are married to men belonging to the same "Hamula" (patrilineal kin group) as theirs. Thus, as many as 50 percent of the women are either married to first cousins or a person from

their father's lineage group "Hamula" and only 33 percent of the women were unrelated to the man they married. If we break this figure down by region, we can see that only ten percent of Southern West Bank women had no kinship relationship to the men they married, but there are substantial regional differences with 41 percent in Northern Gaza Strip married to non-kin.

Very similar levels and regional patterns of kin marriages are found for younger women born in the 1960s (Table 3.8b). About 19 percent of these women from the Northern Gaza Strip and 17 percent of those from the Southern Gaza Strip and

Table 3.8 Kin relationship to first Husband by residence (percent)
(a) Women born between 1940–49

Kin relationship	Northern West Bank	Central West Bank	Southern West Bank	Northern Gaza Strip	Southern Gaza Strip	Total
Ibn khal (mother's brother's son)	4.0	3.6	3.5	3.3	3.3	3.3
Ibn amm (father's brother's son)	14.3	13.6	17.4	22.2	17.8	16.3
Ibn khala (mother's sister's son)	3.6	3.0	3.5	3.8	2.8	3.3
Ibn amma (father's sister's son)	4.9	4.9	4.4	5.0	4.0	4.7
Total First Cousins	26.8	25.1	28.8	34.3	27.9	27.6
Other relative (same Hamula)	17.9	25.1	27.1	17.7	25.0	21.9
Other relative (different Hamula)	15.8	15.8	34.1	7.2	19.3	17.2
No relation	39.6	34.1	10.1	41.6	28.0	33.0
(n)=100%	683	615	331	404	416	2449

(b) Women Born Between 1960–69

Kin relationship	Northern West Bank	Central West Bank	Southern West Bank	Northern Gaza Strip	Southern Gaza Strip	Total
Ibn khal (mother's brother's son)	4.2	4.1	4.0	4.4	5.6	4.4
Ibn amm (father's brother's son)	11.0	12.0	17.2	19.6	17.5	14.8
Ibn khala (mother's sister's son)	5.1	4.4	6.8	5.2	5.4	4.2
Ibn amma (father's sister's son)	5.3	5.8	4.8	4.8	3.9	5.0
Total First Cousins	25.6	26.3	32.8	34.0	32.4	28.4
Other relative (same Hamula)	14.1	19.1	24.7	15.6	23.5	18.7
Other relative (different Hamula)	17.1	12.1	27.6	7.9	14.6	15.4
No relation	43.3	42.5	14.9	42.5	29.5	36.4
(n)=100%	1421	1174	902	957	1005	5459

Southern West Bank were married to their father's brother's son "Ibn amm"). The figures for those coming from the Northern and Central West Bank are respectively 11 and 12 percent. This is in contrast with Holy's (1989) suggestion that the more isolated a society is (in terms of size) the more "Ibn amm" marriages exist. It is true that the Southern part of the West Bank and also to some extent the Southern Gaza Strip are isolated societies, but this is more an isolation of social nature, than in terms of size.

Nearly a third of women marry their first cousin and the proportion is highest in the Gaza Strip and in the Southern part of the West Bank for these birth cohorts, and lowest in the Northern and Central part of the West Bank, and relatively stable over time. Similar patterns are observed for women born in the 1940s and 1960s. Thus, these data do not support Hammami's claim (1993) that endogamy has become less frequent.

Matrilateral parallel cousin marriages "Ibn khala"=mother's sister's son) also remain stable over time (three to five percent). One reason why the maternal lineage is used in Palestinian society could be explained by migration (not enough appropriate

Table 3.9 Relationship to first husband by education (percent); women born between 1940 and 1979

Relation to first husband	Less than elementary	Elementary	Preparatory	Secondary or more	Total
1970–79					
First cousin	36.4	29.5	27.4	27.8	28.9
Same Hamula	16.9	20.6	20.0	19.0	19.6
Other Hamula	16.9	17.0	17.6	15.0	16.7
No relation	29.9	32.9	35.0	38.3	34.8
(n)=100%	456	1267	1693	1127	4543
1960–69					
First cousin	33.1	30.3	30.8	25.9	29.5
Same Hamula	21.9	20.4	18.7	15.7	18.7
Other Hamula	17.7	15.1	14.4	15.0	15.4
No relation	27.3	34.1	36.1	43.4	36.4
(n)=100%	1064	1328	1239	1822	5453
1950–59					
First cousin	31.0	26.4	27.9	25.6	28.0
Same Hamula	24.0	25.2	19.8	16.9	22.0
Other Hamula	17.9	18.3	17.8	11.9	16.6
No relation	27.1	30.2	34.4	45.7	33.3
(n)=100%	1276	984	611	809	3680
1940–49					
First cousin	29.1	28.6	23.8	23.3	27.9
Same Hamula	23.9	22.8	14.1	14.8	21.9
Other Hamula	18.4	16.5	14.1	12.9	17.1
No relation	28.6	32.1	48.1	49.1	33.1
(n)=100%	1614	334	170	293	2411

partners on the patrilateral side), but also that the maternal parallel cousin marriages may be the preferred kinship marriages for women. In general, the custom of cousin marriages reflects the fact that family considerations rather than individual ones motivate the choice of marriage partner.

Figures from Egypt in 1991 show that consanguinity is more common in rural areas where 44 percent of spouses have a blood relationship, than urban areas where the figure is 28 percent (Abdel-Azeem et al. 1993). It is also claimed that that endogamy is more common among those with little or no education. Here, first cousin marriage is marginally more frequent among Palestinian women with less than elementary education (between 29–36 percent) than those with education at secondary level or more (between 23 to 28 percent) (Table 3.9). For Palestinian women with less than elementary education, the proportion married to their first cousin has increased over time.

Other aspects of endogamy and assortative mating

Endogamy is not limited to kinship. It can also be based on other group membership such as a village or a neighborhood. Given the historical context, a natural social group to focus on here is refugees as compared with non-refugees. About 41 percent of the Palestinians enumerated in the survey consider themselves to be refugees, rising to 74 percent of those living in Southern Gaza Strip and 54 percent in Northern Gaza Strip.

Table 3.10 Refugee endogamy: refugee status of household heads and their wives by residence (percent)

Refugee status of head of household	Spouse Refugee	Spouse Non Refugee	n=(100%)
Northern West Bank			
Refugee	74.2	25.8	1028
Non refugee	5.4	94.6	2807
Central West Bank			
Refugee	92.0	8.0	1244
Non refugee	5.8	94.2	2030
Southern West Bank			
Refugee	80.8	19.2	448
Non refugee	3.1	96.9	1834
Northern Gaza Strip			
Refugee	90.9	9.1	1193
Non refugee	15.6	84.4	1065
Southern Gaza Strip			
Refugee	93.7	6.3	1533
Non refugee	14.4	85.6	589

The majority of refugee household heads have wives who are also refugees. This is less marked in the Northern and Southern West Bank but those are the areas with the lowest proportion of refugees overall. Non-refugees also tend to marry within the non-refugee group. Here the exceptions occur mostly in the Gaza Strip where the non-refugees are a minority. Variations in the patterns may be largely a function of the size of the marriage market and therefore people's willingness to consider other options. This seems likely given that the exceptions always occur among the minority group.

Table 3.11 shows trends in refugee endogamy for all household heads' marriages between 1950–95. There is a slight decrease in marriages between refugees over this period and a slight increase in marriage to non-refugee women.

Another form of assortative mating, which is often encountered, is that of education. In many societies, it is fairly unacceptable for a wife to be more educated than her husband, and educated women usually marry men of similar or higher educational status than themselves. If such a phenomenon is occurring in the Occupied territories it might go someway towards explaining the high proportions of unmarried West Bank women with secondary education., Although there is a tendency for men to marry women with the same or less education than themselves, 20.8 percent of men are married to women who are better educated (see, Table 3.12).

Table 3.11 Marriage patterns for refugees and non-refugees head of households by year of marriage (percent)

Year	Household head refugee and spouse refugee	Household head non refugee and Spouse non refugee	Household head refugee and spouse non refugee	N=(100%)
1950–59	37.1	56.6	6.3	931
1960–69	29.5	62.7	7.8	1374
1970–79	35.8	55.9	8.3	2953
1980–89	34.8	55.0	10.2	4022
1990–95	31.4	57.4	11.2	1719

Note: A reference date of 29 April 1995 was used in the survey so events were recorded up to this date.

Table 3.12 Educational achievement of husband and wife (percent)

Husband's education	Wife less educated than husband	Wife same education as husband	Wife better educated than husband	N (weighted) = 100%
Less than elementary	-	71.7	28.7	4102
Elementary	37.5	32.6	29.8	3367
Preparatory	49.5	28	22.4	2259
Secondary	64.7	26	9.5	2227
Associate diploma	78.2	17.8	4.0	950
Bachelor	81.9	17.8	0.3	1018
Masters	97.4	2.6	0	99
Doctorate	96.4	3.6	-	51
Total	39.4	39.8	20.8	14074

It might be that endogamous marriages is more likely between educationally discordant couples, because the kinship relationship is considered to be more important than any differences in educational status. However, this hypothesis is not supported by the data. As shown in Table 3.13, the couples are slightly more likely to be unrelated when the wife is more educated than her husband (p<.0001). This could of course be because families determined to marry off their highly educated daughters are less fastidious about whom they accept as husband.

Table 3.13 Assortative mating and Hamula endogamy

Education	Same Hamula and close kin	Different Hamula	Unrelated	N couples (weighted)
Husband more educated than wife	49.7	17.1	33.2	5055
Same educational level	48.1	17.0	34.9	4131
Wife more educated than husband	46.7	14.9	38.4	2842

Marriages Sustain and Constitute Social Groups

Our data support the hypothesis that kinship and social groups are reinforced and sustained through marriages. Marriages within the lineage are an important component of demographic behavior among Palestinians living on the West Bank and in the Gaza Strip. This is also the case for marriages within groups of similar refugee status, but is less marked for educational groups.

3.4 What role has the Intifada played in marriage

It has been claimed that the Intifada has had an effect on both the formation and dissolution of marital unions. Some of the hypotheses that have been put forward to account for this are: (1) the negative atmosphere during the Intifada years influencing wedding ceremonies; (2) marrying couples did not have to arrange a big wedding party since festivities were kept to a minimum, making weddings less expensive than earlier; and (3) a decrease in bride price (mahr) due to the difficult economic situation (Manasra 1993). Another factor to consider is the "sutra", or "to be on the safe side"; that is the need to marry off daughters in times of uncertainty at any price. These factors all suggest that marriages would become less expensive and, hence, more frequent during the Intifada. Another assumption has been that more marriages were entered into during this period both to establish, and to sustain important political alliances. It has also been claimed that people got married younger during the Intifada.

Table 3.14 shows that there are peaks in marriages in 1989 and in 1990 in all areas. A smaller peak occurs in 1993, the year when Palestinians started to celebrate marriages again.

One would expect an increase of those marrying over time because of increased cohort size. However, the scale of the increase between 1988 and 1989 suggests that something unusual was happening.

Table 3.14 Year couples started living together by residence; women married between 1980 and 19994 (percent)

Year of marriage	Northern West Bank	Central West Bank	Southern West Bank	Northern Gaza Strip	Southern Gaza Strip
1980	3.9	4.9	4.0	5.4	4.1
1981	3.8	5.5	3.7	4.2	4.2
1982	4.0	5.4	6.3	4.0	4.8
1983	5.8	5.6	5.7	5.1	5.9
1984	5.4	5.3	4.1	4.8	5.1
1985	5.0	6.0	5.3	6.1	5.2
1986	5.4	5.0	6.0	5.2	5.5
1987	7.5	7.0	6.6	8.5	7.2
1988	7.5	6.6	7.5	7.9	8.5
1989	10.3	9.1	10.0	8.8	9.8
1990	10.5	9.2	8.1	8.9	8.7
1991	7.7	7.7	6.3	7.2	7.8
1992	7.7	6.9	8.8	8.1	7.7
1993	8.3	8.1	8.4	8.7	7.9
1994	7.1	7.7	9.3	7.1	7.7
n=(100%)	2 437	2 021	1 615	1 811	1 777

Table 3.15 Percentage of marriages by year of marriage and age of woman at cohabitation

Year of marriage	Age					N=(100%)
	10–19	20–29	30–39	40–49	50 and over	
1980	62.8	34.7	2.4			430
1981	64.2	32.0	3.7		0.2	418
1982	62.0	34.7	3.3			459
1983	62.6	35.1	2.3			546
1984	62.7	34.5	2.6	0.2		483
1985	57.3	40.7	1.8	0.2		520
1986	54.1	42.8	3.1			511
1987	57.5	39.8	2.6	0.1		716
1988	57.4	39.9	2.6	0.1		741
1989	58.0	39.6	2.0	0.4		943
1990	62.7	34.0	2.9	0.3		897
1991	62.4	34.5	2.5	0.5		706
1992	66.6	30.3	2.9	0.1		741
1993	66.5	30.4	3.0	0.1		800
1994	65.2	31.7	2.2	0.9		750

Table 3.15 demonstrates a clear reversal of the tendency towards later age at marriage during the early 1980s towards a substantial increase in the proportion of marriages involving teenage girls after 1989. At the same time, there was an increase in marriage among those aged 40–49 during the Intifada years.

3.5 What factors influence age at marriage of Palestinian women?

Many of the factors influencing Palestinian marriage are interrelated — time, educational level, region and consanguinity. The use of Cox regression (also known as the proportional hazard model) should enable us to disentangle some of the relevant factors impacting the rate of marriage (Cox 1972). In the Cox procedure, attention is focused on "survival time", the interval until a certain event occurs; in our case, the time between when a girl is nine years old and when she gets married (Noursis 1996;Allison 1984). We choose nine years as the starting time because some of the older women were married by the age of 10. Women who remained unmarried by the survey date, 1995, are treated as censored.

The following hypotheses will be tested.

I. Education increases the rate of getting married.
Palestinians value education, which is considered "goods" that can be used almost everywhere. Their educational levels are quite high compared with other Arab populations (Obermeyer 1995; Heiberg 1993). Thus we expect higher levels of education to increase a woman's chance of marriage. Fathers' schooling may also influence a daughter's hazard of getting married. An educated father may demonstrate increased attractiveness of his family when it comes to wife choice. Education can also be used as a very simplified indicator of socioeconomic status and thus attractiveness for marriage.

Another indicator of education, used here, is literacy. We expect literacy to increase the rate of marriage for the reasons given above.

II. Women's labor force participation reduces the rate of marriage.
This causal relationship could go both ways: Work outside the home can be a consequence of not being married – that is a man does not support her and thus she has to work. Alternatively, work can be a cause of non-marriage if the woman is able to support herself adequately and does not need to get married. Furthermore, once working, it could be harder for her to find an appropriate partner.

III. Refugee women have a higher rate of getting married than non-refugee women.

Many of the refugees live in difficult economic conditions, and therefore their families will try to get them married.

IV. Cohorts of women with marriageable age in the Intifada period will have a higher hazard rate of marrying.

See section on Intifada above.

V. There are regional differences in the rates of marriage.

There are obvious demographic, historical and socio-economic differences between the West Bank and Gaza Strip, with direct bearing on the incidence of marriage. Similar, but albeit less marked, regional differences also within each area. It is well known, for example, that the West Bank regions have different migration history and variable linkages with the Palestinian Diaspora, impacting the local marriage markets differently.

A number of factors other than those analyzed above may influence the rate of marriage, but unfortunately the relevant data are not available. For example, it would have been interesting to have information on whether the woman comes from an influential family or *Hamula*. In addition, socioeconomic status variables may be important, although this can be partially addressed through the education data. Finally, information about whether or not the woman would like to get married would also have strengthened our model.

The dependent variable in the Cox regression equation is the hazard rate of getting married. The waiting time (or duration), measured in years, is the difference between age nine and age at first marriage, if it occurs. Three measures of education are used. The first two are metric measures of years of schooling completed for the respondent and her father. The third measure refers to literacy or whether the woman is able to read and write (=1) or not (=0). Likewise, simple binary measures of employment and refugee status were used. Both were measured by direct questions on whether the person worked last month (=1) or not (=0) and whether the person considers herself refugee (=1) or not (=0). Dummy coding was used for all of the binary variables.

For the remaining covariates, birth cohort and region, deviation coding was used in the regression instead of the more traditional dummy coding. Five categories for both birth cohorts and regions are distinguished. With the exception of the youngest birth cohort (born 1980–81), a simple ten-year grouping is used for cohorts born between 1940 and 1970. The region variable is the same one used above and consists

of three regions in the West Bank (Northern, Central, and Southern) and two in Gaza Strip (Northern and Southern).

Table 3.16 displays the estimates from Cox regression. As shown in this Table, most of the covariates have a significant impact on the hazard of getting married (p<0.05). We can now consider our specific hypotheses.

I. Education increases the hazard of getting married.

This hypothesis is not supported by our analyses, as the observed coefficient shows a negative relationship between years of schooling and marriage: The more the years of schooling a woman has, the lower the hazard rate of getting married. Father's years of schooling has no effect on a woman's hazard of getting married.

As expected, literate women have a higher hazard rate of getting married than the illiterate. The literate women are 1.5 times more likely to get married compared to the illiterate.

Table 3.16 Cox regression of women's entry into marriage

Variable	B	S.E.	P	Exp(B)
Education				
Years of schooling	-0.059	0.003	0.000	0.943
Father's years of schooling	-0.003	0.002	0.159	0.997
Literate	0.430	0.034	0.000	1.538
Non literate*				1
Work				
Worked	-0.884	0.039	0.000	0.413
Not worked*				1
Refugee status				
Refugee	-0.077	0.019	0.000	0.926
Non refugee*				1
Birth cohort			0.000	
1980–1981(1)	-0.961	0.207	0.000	0.383
1970–1979(2)	0.142	0.054	0.009	1.152
1960–1969(3)	0.213	0.054	0.000	1.238
1950–1959(4)	0.296	0.054	0.000	1.344
1940–1949*				1.360
Region			0.000	
Northern West Bank(1)	-0.288	0.016	0.000	0.750
Central West Bank(2)	-0.053	0.017	0.002	0.949
Southern West Bank(3)	0.034	0.019	0.070	1.035
Northern Gaza Strip(4)	0.256	0.018	0.000	1.292
Southern Gaza Strip				1.05

* = reference category

II. Women's labour force participation reduces the hazard of marriage.
This hypothesis is confirmed. Having a job outside the home decreases a woman's hazard rate of getting married. The odds of her getting married are about half (0.4) of those not working outside.

III. Refugee women have a higher hazard of getting married than non-refugee women.
This hypothesis is not supported by our analysis. Here, the hazard ratio of refugee women marrying is 0.93 compared to 1 for non-refugees.

IV. Cohorts of women with marriageable age in the Intifada period will have a higher hazard of marrying.
Those 14–15 (born 1980–1981) have a low hazard ratio of getting married (0.4) when compared to the other birth cohorts — which is not surprising. Those women born between 1970–1979 and who are between 16–25 years by the time of the survey, have a higher hazard ratio of marrying. For those who were born between 1960–1969 and who were between 18–27 years in 1987 (the year in which the Intifada started), have a ration higher than average, 1.2. Also, women born between 1950–59, and who were 36–45 years by the time of the survey, are 1.3 times more likely to get married than others. This suggests that other time periods are more important than the Intifada, and that more of the older women married at younger ages.

V. There are regional differences in hazard rates of marriage.
Both women from the Northern part of the West Bank and the Central part, have a relatively low hazard ratio of getting married, with respectively 0.7 and 0.9, whereas women from the Northern Gaza Strip have a high hazard ratio of 1.3, compared to others.

Overall the regression analysis reported here confirms the bivariate analysis presented earlier, showing that education, region, participation in the labor force and refugee status all influence the rate of marriage independently.

3.6 Conclusions

Age at first marriage in the Occupied Territory is low for women, especially in the Gaza Strip. Men also marry young, around 3–4 years older than women. In general, the age at first marriage has been relatively stable over recent decades although there

is some evidence of a slight increase for women related to changes in levels of achieved education. The Intifada has stimulated a recent decline in age at first marriage.

Education influences both Palestinian men and women's age at first marriage but only once they have completed secondary school. Secondary school women marry later than others, although this difference has diminished over time. This may be due to difficulties in finding suitable spouses since this group of women has high proportions who never marry.

Marriage between close kin is widespread, and there are no signs of any reduction in its frequency in recent years. Almost 30 percent of women are married to their first cousin. Close kin endogamy is maintained throughout the population at all levels of education, although those with a higher level of education have marginally lower frequency of first cousin marriage compared to those with less than elementary schooling.

The marriage pattern on the West Bank and in the Gaza Strip is characterized by a high degree of marital stability. Marriage is almost universal for men but a substantial and growing proportion of women never marry, especially in the Northern and Central part of the West Bank. The least educated as well as the most educated are less likely to marry, compared to other groups of women. The proportion currently divorced and separated is very low.

A major factor influencing entry into marriage is perhaps the deficit of men. There are just not enough men of marriageable age available and polygamy is rarely practiced. The lack of men may be exacerbated by in-migration of Jordanian women of Palestinian origin. Of the 268 women who moved to the Occupied Territories since 1987, and who were born in Jordan, 73 percent had got married since 1987, suggesting that the move might be due to marriage. If this phenomenon has been going on for several decades it could explain, at least in part, the surplus of unmarried women.

The proportional hazard model indicates that literacy increases women's chances of marriage, but years of schooling decrease it. Even controlling for education, women working outside the home are less likely to marry than non-working women. Refugee women also have a low rate of getting married, compared to non-refugee women and women born between 1950–1959 have the highest hazard of getting married in comparison with other birth cohorts. Women living on the Northern and on the Central part of the West Bank have a decreased hazard of getting married compared with women from the other regions.

Appendix

Table 1 Median age at first marriage by current age and education, Women

(a) Northern West Bank

Age	Less than elementary	Elementary	Preparatory	Secondary or more
20–24	17	17	17	19
25–29	19	18	18	21
30–34	18	19	19	23
35–39	18	18	18	23
40–44	19	19	18	22
45–49	20	19	19	24
50–54	19	19	18	25

(b) Central West Bank

Age	Less than elementary	Elementary	Preparatory	Secondary or more
20–24	17	17	17	19
25–29	17	18	18	21
30–34	17	17	18	21
35–39	17	17	18	21
40–44	17	18	18	22
45–49	19	18	19	22
50–54	17	18	18	24

(c) Southern West Bank

Age	Less than elementary	Elementary	Preparatory	Secondary or more
20–24	17	17	17	19
25–29	18	18	18	21
30–34	17	17	18	21
35–39	17	17	18	22
40–44	18	17	19	22
45–49	18	19	20	22
50–54	18	17	18	29

(d) Northern Gaza Strip

Age	Less than elementary	Elementary	Preparatory	Secondary or more
20–24	17	16	17	19
25–29	18	17	17	20
30–34	17	17	17	21
35–39	17	17	17	21
40–44	18	17	18	21
45–49	17	17	19	22
50–54	17	17	17	20

(e) Southern Gaza Strip

Age	Less than elementary	Elementary	Preparatory	Secondary or more
20–24	17	17	17	19
25–29	18	18	17	21
30–34	19	18	17	22
35–39	18	18	18	21
40–44	18	18	19	22
45–49	19	19	20	24
50–54	17	17	17	25

Table 2 Current marital status by sex

(a) Northern West Bank

Age	Never Married M	F	Married M	F	Widowed M	F	Divorced M	F	Separated M	F	(N)=100% M	F
14	100.0	99.7		0.3							334	277
15–19	99.2	79.1	0.8	20.7				0.2			1678	1433
20–24	82.2	42.7	17.7	56.1		0.2	0.1	0.9			1443	1237
25–29	40.4	26.3	59.0	71.3		0.6	0.5	1.4	0.1	0.4	1127	1049
30–34	10.0	22.3	89.5	74.5		1.7	0.3	1.3	0.2	0.2	911	877
35–39	3.0	17.3	96.4	79.5		2.0	0.4	0.8	0.1	0.5	636	628
40–44	2.1	13.3	97.6	80.2		4.9		1.0	0.2	0.6	432	494
45–49	1.0	13.5	99.0	76.4		7.5		1.7		0.9	366	433
50–54	0.6	3.0	98.8	70.9	0.6	12.4		2.7		0.9	306	410
55–59	0.0	5.1	98.7	68.1	1.3	23.7		1.1		2.0	277	338
60–64	1.1	7.5	94.9	60.7	4.0	28.5		0.6		2.7	261	324
65 over	0.3	3.7	89.5	35.5	10.0	58.8		0.5		1.5	556	573

(b) Current Marital Status by Sex, Central West Bank

Age	Never Married M	F	Married M	F	Widowed M	F	Divorced M	F	Separated M	F	(N)=100% M	F
14	100.0	99.7		0.3							333	312
15–19	98.6	79.2	1.4	20.2		0.1		0.3		0.2	1613	1426
20–24	76.6	41.9	22.8	56.4		0.3	0.4	0.6	0.2	0.8	1233	1121
25–29	32.2	22.2	67.0	76.2		0.5	0.6	0.7	0.2	0.3	920	835
30–34	10.9	20.4	87.9	74.4		0.8	0.6	3.1	0.5	1.2	711	738
35–39	2.8	13.0	96.4	83.4		1.1	0.7	1.1	0.2	1.4	539	636
40–44	2.3	11.1	96.7	80.8	0.4	5.0	0.2	2.2	0.4	0.8	442	463
45–49	1.4	6.4	98.6	80.2		10.0		2.8		0.6	395	435
50–54	3.1	8.7	96.3	76.0	0.3	12.8	0.3	2.5			315	288
55–59	2.7	10.8	95.2	59.3	1.0	27.0	0.7	1.9	0.3	1.1	253	315
60–64	0.5	3.7	94.2	62.5	4.8	31.9	0.5	1.7		0.3	201	255
65 or over	1.3	3.6	85.8	34.8	12.4	60.3		0.7	0.5	0.5	483	498

(c) Current Marital Status by Sex, Southern West Bank

Age	Never Married M	Never Married F	Married M	Married F	Widowed M	Widowed F	Divorced M	Divorced F	Separated M	Separated F	(N)=100% M	(N)=100% F
14	99.6	99.1	0.4	0.5		0.5					262	235
15–19	97.4	78.0	2.6	21.8				0.2			1240	1112
20–24	68.2	32.4	31.8	66.7		0.3		0.7			906	813
25–29	25.2	17.7	74.7	81.5			0.2	0.4		0.4	685	568
30–34	6.9	10.3	92.7	87.7		1.3	0.4	0.4		0.2	506	511
35–39	3.0	8.0	97.0	88.1		2.4		1.3		0.3	371	397
40–44	1.0	5.1	99.0	89.0		4.4		0.4		1.1	307	285
45–49		3.3	99.5	88.6	0.5	7.1		0.5		0.5	211	225
50–54	0.6	1.5	98.9	84.2	0.6	12.0		0.8		1.5	179	143
55–59	0.7	2.6	99.3	77.5		17.8		0.5		1.6	144	211
60–64	0.7	2.1	96.3	69.2	3.0	26.6				2.1	142	161
65 or over	0.4	0.5	90.3	34.0	8.9	64.2			0.4	1.4	285	237

(d) Current Marital Status by Sex, Northern Gaza Strip

Age	Never Married M	Never Married F	Married M	Married F	Widowed M	Widowed F	Divorced M	Divorced F	Separated M	Separated F	(N)=100% M	(N)=100% F
14 years	99.6	99.1	0.4	0.9							235	219
15–19	95.9	63.3	3.9	36.0			0.1	0.4	0.1	0.2	1065	955
20–24	55.6	24.1	44.2	73.6		0.4	0.2	1.7		0.3	830	771
25–29	12.5	13.5	86.9	84.7	0.2	0.3	0.5	1.4			614	607
30–34	3.6	11.4	95.5	85.7	0.2	1.9	0.5	1.0	0.2		573	509
35–39	1.5	8.7	97.0	85.8		1.6	0.8	2.6	0.8	1.3	389	373
40–44	0.9	5.7	98.3	85.4	0.6	4.1	0.3	4.1		0.6	344	310
45–49	1.1	4.8	97.7	85.3	0.8	6.6		2.2	0.4	1.1	259	270
50–54	0.7	8.5	97.3	75.0	1.3	13.3		1.6	0.7	1.6	147	185
55–59	0.6	3.3	96.5	69.8	1.8	24.7	0.6	0.5	0.6	1.9	170	211
60–64	0.7	1.7	98.6	60.7	0.7	36.4		0.6		0.6	137	168
65 or over	0.4	3.1	83.5	31.0	16.1	64.3		1.2		0.4	254	249

(e) Current Marital Status by Sex, Southern Gaza Strip

Age	Never Married M	Never Married F	Married M	Married F	Widowed M	Widowed F	Divorced M	Divorced F	Separated M	Separated F	(N)=100% M	(N)=100% F
14	100.0	98.1		1.9							225	233
15–19	97.4	76.9	2.6	22.6		0.1		0.2		0.1	1152	946
20–24	66.9	31.3	32.3	67.0		0.3	0.6	1.2	0.1	0.3	849	816
25–29	22.6	14.7	76.7	83.4	0.1	0.3	0.4	1.3	0.1	0.3	710	674
30–34	4.8	11.8	95.0	84.4		2.2	0.2	0.8		0.8	587	523
35–39	1.0	8.9	98.2	85.3	0.3	3.3	0.3	1.9	0.3	0.6	412	379
40–44	1.2	6.8	98.0	84.8	0.3	3.7	0.3	4.0	0.3	0.6	367	355
45–49	1.1	6.8	98.9	77.7		11.2		3.2		1.2	197	263
50–54	1.6	3.8	96.1	81.5	1.6	10.9	0.8	2.2		1.6	142	195
55–59	2.2	0.9	95.6	66.8	2.2	28.0		1.9		2.3	144	225
60–64		1.1	97.3	56.4	2.0	39.7	0.7	0.6		2.2	158	189
65 or over	0.4	1.4	85.2	31.3	14.4	64.3		1.4		1.7	253	308

Chapter 4 Fertility

Sara Randall

4.1 The data

Data used for the fertility analysis come from combining the women's individual data files and the birth files. Based on the premise that extra-marital fertility is strongly condemned in Palestinian society, fertility questions were only asked of ever-married women. However, for 278 births (0.3 percent of the birth sample) maternal marital status is missing and for 47 (0.3 percent) women, although marital status is recorded as unmarried, data are available on their children. It is not clear how these inconsistencies occurred.

Good data quality

In general, the fertility data seem to be of good quality with few omissions. Less than 0.1 percent of the births are missing year of birth. Consistency checks on the data files revealed some mis-entries of year of birth, but these could usually be rectified using other information on the file (birth order, age, etc). For 0.2 percent of the births either the woman's birth history was in such disorder that it couldn't be disentangled, or the given date of birth was totally incompatible with other available information. A total of 954 births (1.2 percent) had preceding birth intervals of eight months or less. Of these, an imputed date of birth formed at least one boundary of the interval for 553 births, leaving 401 births with reported biologically implausible intervals.[1] Although clearly there are errors with these births, we assume that they are errors of timing rather than of existence. Since most of the fertility measures given below are for 5-year intervals, or are population summaries for which fine points of timing make little difference, these births have all been included in the analysis.

[1] An examination of births preceded by an implausibly short birth interval showed that such children were (a) more likely to be dead, (b) the birth was more likely to have occurred before 1975, and (c) they were more likely to have had an imputed birth date. Those who were still alive were slightly more likely to have illiterate mothers. There were no indications to suggest that such births had been invented, and there was no relationship either to residence or refugee status.

4.2 Palestinian Total Fertility Rates over the last twenty years

The Total Fertility Rate (TFR) is a period index which summarises the total number of children a woman of reproductive age would have had, had she experienced throughout her lifetime the age specific fertility rates of the period in question. By controlling for age structure, the TFR is a useful tool for comparison.

It is clear from Table 4.1 that fertility has been declining in the West Bank since the early 1980's although the decline has slowed down recently. In contrast, whereas fertility was more or less stable throughout the 1980's in the Gaza Strip, it rose in the 1990s. Much of the rest of this chapter will be spent disaggregating these gross

Table 4.1 Total Fertility Rate by region and period

Period	West Bank	Gaza Strip	All Occupied Territories
1975–79 (up to age 40 only)	7.20	7.33	7.24
1980–84 (up to age 44 only)	6.73	7.59	7.00
1985–89	5.91	7.58	6.43
1990–94	5.84	7.78	6.46

Table 4.2 Total Fertility Rate (1990–94 and 1985–89) by socio-economic characteristics

	West Bank		Gaza Strip	
TMFR	1985–89	1990–94	1985–89	1990–94
All women	5.91	5.84	7.58	7.78
Refugee status				
Refugee	5.68	5.57	7.42	7.73
Non refugee	6.00	5.96	7.88	7.88
Locality				
Town/city	5.11	5.13	7.71	7.68
Village	6.53	6.34	8.70	8.93
Refugee camp	5.73	5.81	6.99	7.46
Education				
Below elementary	6.85	6.45	7.59	7.37
Elementary	6.40	6.47	8.59	8.76
Preparatory	5.77	6.10	8.58	8.92
Secondary or more	4.09	4.58	6.47	6.88
Religion				
Muslim	6.05	5.96		
Christian	3.01	3.05	n/a	n/a
Female employment				
Working (at survey)	n/a	2.38	n/a	4.72

trends and trying to identify some of the determinants of change. Because each region clearly has a different fertility regime, all further tables and graphs will be presented by region.

Gaza women have higher fertility

Total fertility rates for various socio-economic and residential subgroups demonstrate the heterogeneity of the population but also higher fertility in the Gaza Strip for all women (Table 4.2).

Refugee status does not affect fertility

If we just consider total fertility up to age 40 (that is the number of births a woman would have had by age 40 if she were subject to the current age-specific fertility rates[2]) it is possible to get a time depth of twenty years on the fertility patterns and differentials. From Figure 4.1 non-refugee fertility is marginally higher than refugee fertility in the Gaza Strip. However, the fact that the relative patterns over time are so similar within each area suggests that refugee status per se has little impact on fertility, although the recent fertility increase only occurs amongst Gaza Strip refugees. Clearly region is much more significant than refugee status in determining fertility.

Figure 4.1 Total Fertility (up to age 40) by refugee status and region
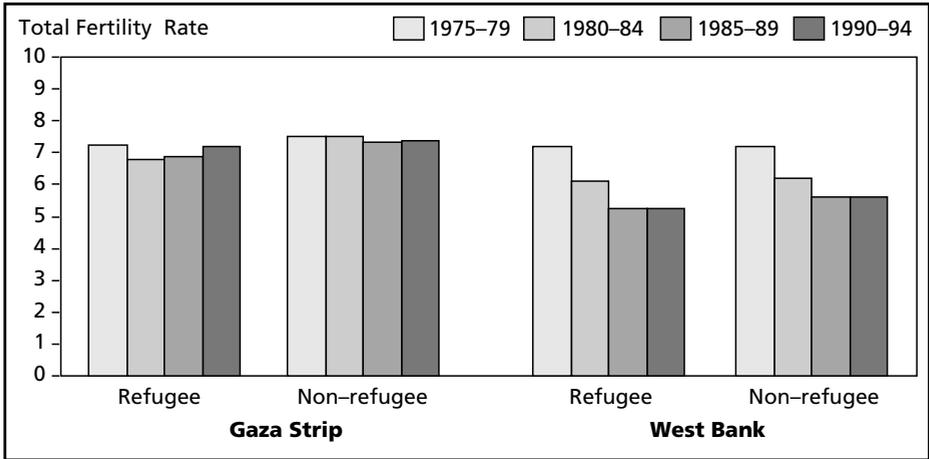
[2] Figures 4.1, 4.2, 4.3 show TFR up to age 40. This allows direct comparison between periods, and avoids problems of truncation. Obviously, if some sub-groups maintain high levels of reproduction in their 40s whereas others don't, the differences between groups may change slightly. However, naturally low fertility towards the end of the reproductive ages mean that such differences will probably be minor.

Locality is a determinant of fertility

Fertility varies more by locality than by refugee status, but there is an interaction with region (Figure 4.2). In both regions, villages have had the highest fertility for the last twenty years, with towns having consistently the lowest fertility in the West Bank. In the Gaza Strip there is little difference between town and camp, except during the 1980s when camp dwellers had slightly lower fertility; in the 1990s fertility rose amongst camp dwellers of both regions and Gaza Strip villagers

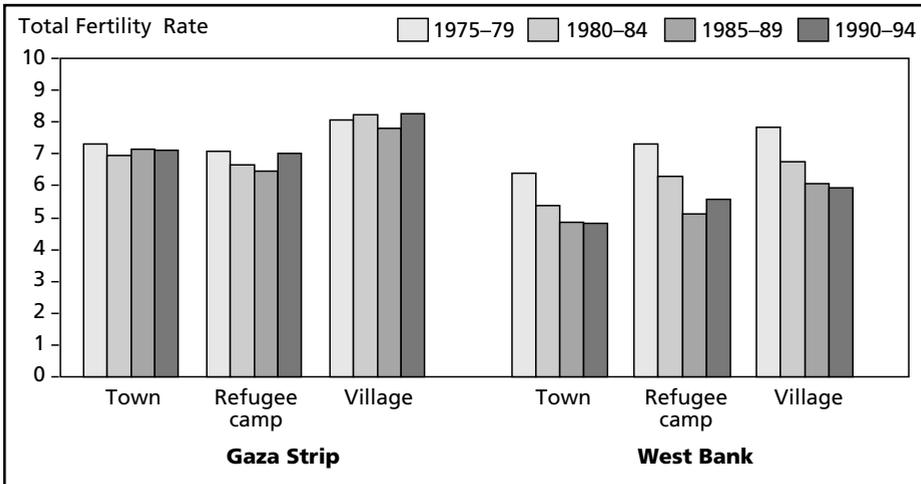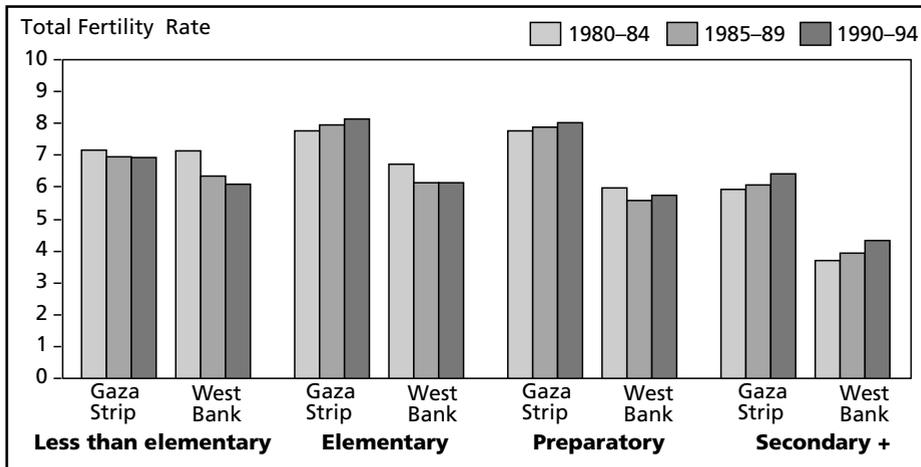Figure 4.2 Total fertility (up to age 40) by locality and region

Figure 4.3 Total fertility (up to age 40) by region and education

Fertility in Gaza Strip higher for all educational subgroups

Figure 4.3 demonstrates that education is an important determinant of fertility, but that there is a strong interaction with region, leading to some very unusual results for the Gaza Strip; Elul (1996) obtained similar results, using the 1992 Falcot data.

There is a substantial literature on the links between education and fertility, and the role of education of women in fertility decline. Analyses of world-wide changes by country (emerging largely from the World Fertility Survey and the Demographic and Health Surveys) suggest that in general at the beginning of the fertility transition (from high to lower fertility) there are strong educational differentials, with women having higher levels of education (in some cases eight or more years, in others, completed secondary) being the first to demonstrate fertility decline, and with very substantial differentials. There is often a monotonic gradation from highly educated women with low fertility to high fertility for the illiterate. In some cases, especially in sub-saharan Africa, those with a little education may have higher fertility than the uneducated, an observation usually interpreted to be a consequence of the erosion of traditional methods of birth spacing, particularly breastfeeding. The evidence also suggests that lower fertility amongst the better-educated women is achieved both through changes in the marriage patterns – notably later ages at marriage – and also through marital fertility control. As the fertility decline progresses, and usually as a greater proportion of women receive higher levels of education, fertility differentials between educational subgroups are reduced (Martin 1995; Martin and Juarez 1995). A more normative behaviour of lower fertility appears to develop, with less educated women also start practising fertility control.

Thus, while conventional demographic wisdom would lead one to expect a decline in fertility with increasing levels of completed maternal education, in the Gaza Strip those who have completed primary and preparatory education have much higher TFRs than either those with no education, or those with secondary education. Not only is there this pattern, but also over the last fifteen years, fertility has been rising within educational groups – a phenomenon also noted by Courbage (1994b) in Syria.

In contrast, the overall picture in the West Bank is more conventional, with lower fertility for women with more education, although the differentials are small. The overall fertility differences between education groups in the West Bank are also narrowing, with fertility increases over the last few years amongst secondary educated women.

Christians have lower fertility than Muslims
There are too few Christians in the Gaza Strip for any separate fertility rates to be calculated. In the West Bank, Christians have around three children less than Muslims. However, because the Christians are such a small minority, their low fertility has little effect overall on West Bank fertility.

Low fertility amongst working women
Women in employment at the time of the survey have very low fertility, even in the Gaza Strip, although there are very few employed women (8.4 percent in West Bank and 4.8 percent in the Gaza Strip). Even fewer working women are married, explaining much of the differences, with total marital fertility rates being 7.56 for West Bank and 9.54 for the Gaza Strip. Given the fairly high proportions of unmarried women at every age, and the apparent shortage of husbands (see, chapter 3), it seems likely that women unable to find husbands are those who tend to work, although the lower marital fertility for the West Bank does suggest that working women there are also controlling fertility.

Questions arising out of these observed fertility patterns
These questions are on two different levels. First, how are these fertility differentials and changes achieved? Are they a consequence of different marriage patterns in the Gaza Strip and the West Bank or are the differentials largely achieved through marital fertility control (use of contraception)? Is there evidence of different breast-feeding regimes which, in the case of natural fertility groups is leading to longer birth spacing and therefore lower overall fertility in some sub-populations?

Secondly, why, with regard to fertility, are these Palestinian populations behaving in such an unusual way? Why is fertility so high, especially given the high female education levels? Why has fertility risen over the last 15 years in 4 out of the 8 regional educational subgroups? Why is the fertility of educated Gaza Strip women so high and showing little decline with increased levels of education except for secondary educated women? Is there any evidence that the Intifada has played a role in raising fertility?

The next sections will use a variety of different methods to examine the components of the fertility differentials.

4.3 Marriage and marital fertility

The age-specific fertility rates include all women in the denominators. In populations where almost all fertility is within marriage, substantial fertility differentials may be caused by different marriage patterns: either later age at first marriage or different proportions married. From chapter 3, it was clear that there are differences in proportions ever marrying both by region and educational group. In the West Bank, around 20 percent secondary educated women have never married rising to 30 percent for those aged 25–29. In the Gaza Strip more secondary school women marry (10–15 percent unmarried over age 30) than in the West Bank and this may explain some of the TFR difference by region. In both regions the unexpectedly high proportions of unmarried uneducated women is likely to contribute to their lower TFRs.

Table 4.3 Total Marital Fertility Rates* (1990–94 and 1985–89)

TMFR	West Bank		Gaza Strip	
	1985–89	1990–94	1985–89	1990–94
All	9.3	9.4	10.6	10.7
Refugee status				
Refugee	9.2	9.2	10.6	10.7
Non-refugee	9.5	9.4	10.6	10.5
Locality				
Town/city	8.6	8.6	10.6	10.4
Village	10.0	9.7	11.2	11.5
Refugee camp	9.8	9.9	10.4	10.6
Education				
Below elementary	10.0	9.6	10.2	10.0
Elementary	9.2	9.3	10.7	10.9
Preparatory	8.7	9.0	10.9	11.1
Secondary+	8.4	8.8	10.4	10.5
Religion				
Muslim	9.6	9.4	n/a	n/a
Christian	5.9	6.6		
Female employment				
Working (at survey)	n/a	7.6	n/a	9.5
Relationship with first husband				
Same hamula /close kin	9.5	9.3	10.6	10.6
Different hamula	10.0	9.5	11.2	11.1
Unrelated	9.1	9.3	10.5	10.7

* The 14 year olds were excluded from these calculations.

Total Marital Fertility Rates (the number of children a woman would have had had she been married throughout her reproductive years from 15–49) were calculated for all the different socio-economic groups (see Table 4.3). Differences between TMFRs suggest either a use of fertility control within marriage or different prevalence of pathological infertility by sub-groups – something that is not evident for this population. The removal of TFR differences by calculating TMFRs suggests that most of the fertility differences are caused by differences in proportions of women married by age.

Table 3 suggests that Christians are practising fertility control within marriage but most of the educational fertility differentials in Gaza Strip are caused by different marital regimes. Nuptiality explains the West Bank differentials, and there is evidence of slightly lower marital fertility for better-educated women in the five years before the survey. In the Gaza Strip there is an indication that working women have slightly lower marital fertility than all other sub-groups suggesting that any fertility decline here may be associated with employment possibilities. In the West Bank, the lower marital fertility in towns and cities is probably linked with more contraceptive availability, acceptability and use in these areas, along with a selection effect, with most Christians and working women living in this locality type.

Nuptiality explains most of the fertility differentials by education

A comparison of the total marital fertility rates with the total fertility rates demonstrates that for all women with less than preparatory, and Gaza Strip women with preparatory education, marital fertility is about 2 children higher than total fertility, with little change in the pattern over time. For women with preparatory educa-

Figure 4.4 Total Marital Fertility (15–39) by region and education
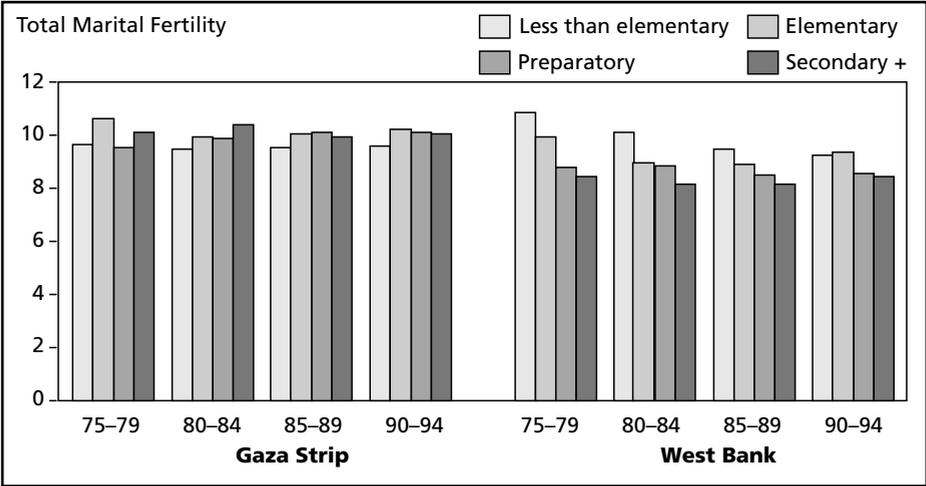
tion in the West Bank, the marriage pattern accounts for about three children, and for about 4 children among the secondary educated groups. There is very little difference in the total marital fertility rates by education level in the Gaza Strip (Figure 4.4). In contrast, marital fertility differentials by educational category in the West Bank which were quite marked in the 1970s (differing by around 2 children) had been substantially reduced by the 1990s with women with secondary or more education showing a slight rise in marital fertility over the late 1980s and those with less than preparatory education showing a decline.

Thus, in the Gaza Strip most of the educational fertility differentials can be explained by the marriage pattern, with a sizeable minority of women never marrying and therefore never bearing children, and for all educational groups marital fertility is extremely high, being around 10 children. In the West Bank the marriage pattern can account for much of the recent fertility differentials by educational achievement, but this was less true in the late 1970s and early 1980s.

4.4 Marital fertility control

In the absence of direct data on contraceptive use, an examination of the age patterns of marital fertility is a crude method for investigating the use of deliberate fertility control (Coale and Trussell 1974). If the marital fertility schedule is standardised against the marital fertility rate for 20–24 year olds (taking that value as 1 and calculating the others as a ratio to the 20–24 value) a convex curve is an indication of no fertility control within marriage, whereas a concave curve is evidence of control.

Standardised curves were calculated for all educational and regional sub-groups for the last fifteen years. As might be expected from the constant total marital fertility rates, there is little variation over time. There are, however, systematic differences between the two regions with Gaza Strip women of all educational levels having more convex curves than West Bank women (Figure 4.5), and with the Gazans showing little evidence of any fertility control. There is a suggestion of fairly low levels of voluntary fertility control in all West Bank groups with any education, but the curves are not concave enough to be really categorised as controlled fertility subpopulations. They can be contrasted with the standardised curves for the religious subgroups in the West Bank (Figure 4.6) which shows a clearly convex curve for the Christians reflected in their overall lower total and marital fertility (see Tables 4.2 and 4.3).

Thus an examination of marital fertility suggests that within the Gaza Strip, most of the educationally related differences in total fertility are caused by differences in

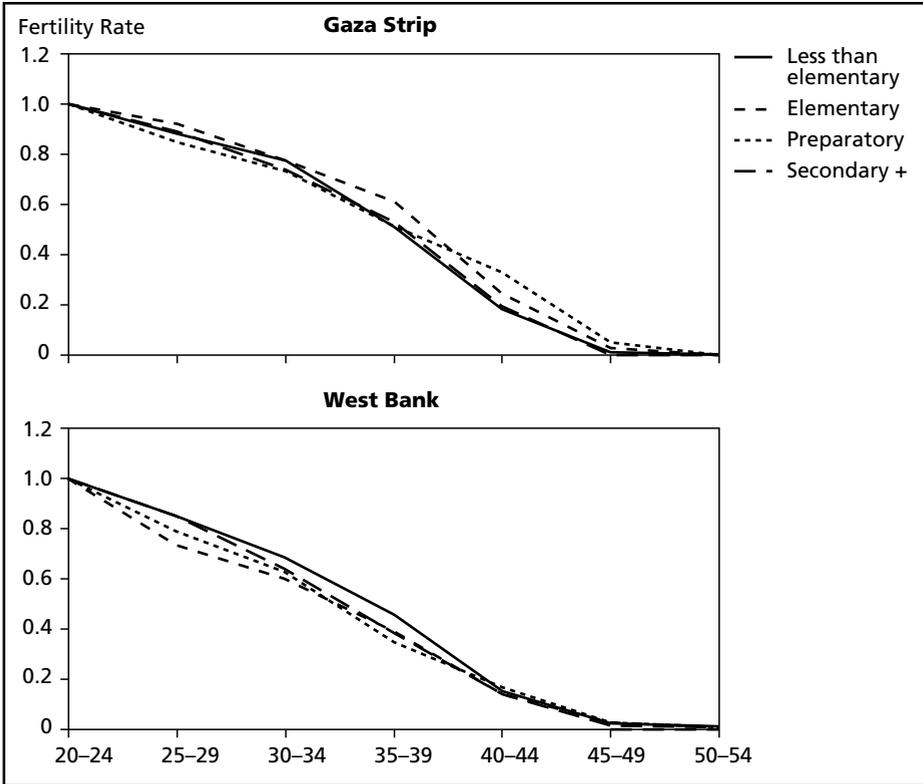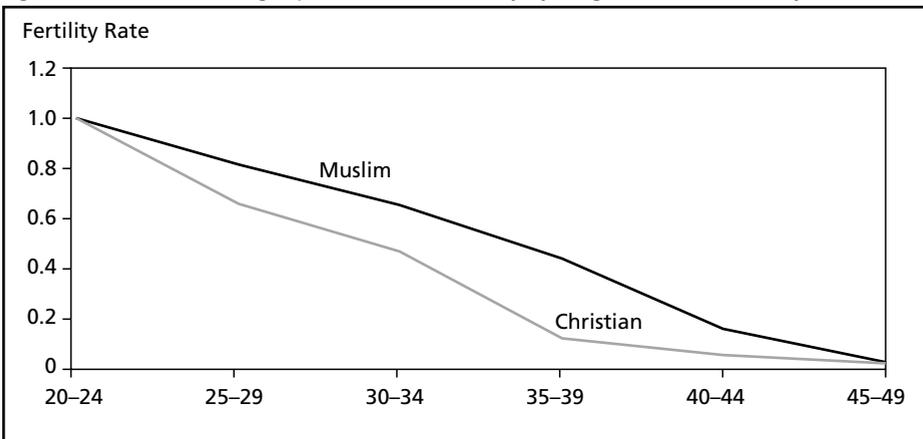Figure 4.5 Standardised age specific marital fertility by region and education

Figure 4.6 Standardised age specific marital fertility by religion: West Bank only

marital behaviour. In the West Bank, marriage is an important determinant of fertility, but all groups with some education might be using some fertility control.

4.5 Birth intervals and family building

Given the absence of data on breastfeeding and contraceptive use, an examination of the birth intervals may give some indication of the proximate determinants of fertility differentials between West Bank and Gaza Strip.

Very short birth intervals

Birth intervals in this population are extraordinarily short with the modal interval being 14 months. A more detailed examination of birth intervals shows a very strong age pattern across all educational subgroups with little variation between subgroups.

It is clear from Table 4.4 that birth interval dynamics differ substantially by age, with the median interval for all groups under 30 being between 19 and 20 months, for those in their 30s being around 26 months for West Bank women and 23–24 for Gaza women, and for women over 40, medians in the Gaza Strip are between

Table 4.4 Characteristics of preceding birth intervals: births after 1.1.1985

	Median preceding birth interval (months)		Percent intervals < 18 months		Percent intervals > 60 months	
	West Bank	Gaza Strip	West Bank	Gaza Strip	West Bank	Gaza Strip
Under 30						
None	19.8	19.8	36	37	1.3	0.9
Elementary	19.9	20.0	35	34	1.5	0.6
Preparatory	20.5	19.3	34	38	1.5	0.8
Secondary+	19.8	19.0	37	40	1.2	0.6
30–39						
None	25.3	25.0	21	20	7.0	4.2
Elementary	26.4	23.8	20	24	13.0	5.7
Preparatory	27.6	23.7	17	20	12.9	4.5
Secondary+	27.5	23.1	20	25	11.5	4.5
40+						
None	33.5	31.2	9	8	18.1	12.0
Elementary	38.0	35.0	8	9	26.4	17.1
Preparatory	47.0	33.0	2	7	35.7	21.5
Secondary+	43.8	31.0	4	16	36.4	10.2

31 and 35 months, and longer in the West Bank. Similar patterns are seen for births in the period 1975–84, showing that we are not witnessing a cohort effect here, but a definite age effect, with the very short intervals dominating younger women's reproduction; the rapidly growing population and general fertility dynamics means that the majority of births are to these women (74 percent births in this survey were to women aged under 30 at birth and only 2.1 percent to women aged 40 or more).

The conclusions which can be drawn from these birth intervals is that within marriage, fertility differentials between the Gaza Strip and the West Bank are being mediated through slightly slower childbearing in the later reproductive ages with West Bank women having more birth intervals of over 5 years and a slightly longer median duration of interval. For younger women, there is little variation, although despite little change in the median birth interval, in both areas in the later period (since 1985) there has been a slight reduction in the percentage of intervals of less than 18 months.

There is no evidence that education influences the birth interval or family building strategy once childbearing has started, save that in the Gaza Strip in the 1975–84 period the more educated women had even shorter intervals with 47.2 percent secondary educated women under 30 having intervals of less than 18 months. This may have been due to changing breastfeeding patterns.

4.6 Age at first birth

Given that birth intervals are extremely short for women of all socio-economic characteristics during their twenties, age at first birth is of critical importance in determining fertility levels and in understanding the absence of fertility decline.

Table 4.5 Age at first birth by period and region

	Median	25 percent	75 percent	N
West Bank				
1975–79	19.7	17.7	22.1	1222
1980–84	20.1	18.2	22.7	1377
1985–89	20.8	18.7	23.5	1756
1990–94	20.2	18.3	22.9	2575
Gaza Strip				
1975–79	20.6	18.5	23.6	632
1980–84	20.1	18.4	22.6	774
1985–89	20.5	18.4	23.2	1066
1990–94	19.8	17.9	22.6	1463

Little change in age at first birth

Age at first birth has been very stable over the last 20 years, although with a possible recent slight decline for the Gaza Strip (Table 4.5). Age at first birth – which in this population is highly dependent upon age at first marriage is largely constrained within a very small age range, with around 50 percent women having their first birth between 18 and 23 years of age. There is some evidence that a rise in age at first birth during the 1980s has been reversed in the 1990s.

4.7 Parity Progression Ratios

Parity progression ratios calculate the probability that a woman, having reached parity 'x'[3] will go on to have another birth (parity x+1). In a population of women who have completed their childbearing years, these ratios can be used to gain a picture of the overall distribution of completed parities. For women under the age of 45 the probabilities obtained are not the final probabilities of moving from one parity to the next. However, two different populations of women of the same age can be compared in order to establish whether they have similar patterns of childbearing, whether one group is slower than the other, and whether there is evidence of fertility control at a specific parity. If there is no fertility control, and little pathological secondary sterility, for older women the probabilities of progressing from one parity to the next are usually above 0.9. In a high fertility population such as the Palestinians, the probabilities may remain that high up to parity 7 or 8.

In the case of the Palestinian population the interest of calculating parity progression ratios is to establish whether the rather lower West Bank marital fertility appears to be due to pathological problems of conception (in which case we would expect lower progressions from 0–1 child and maybe for 1–2 and 2–3 showing evidence of secondary sterility) or whether there is evidence of fertility control at higher parities and whether a critical parity can be identified.

PPRs were calculated using sub-categories of education and region of residence for women 30–34, 35–39, 40–44, and 45–49 on specific dates at 5-year intervals – namely 1 January 1995, 1990, and 1985. Thus those aged 30–34 in 1985 will be those aged 35–39 in 1990. Progressions were only calculated when there were more than 50 women of parity 'x'; therefore there are no PPRs for secondary educated Gaza women aged 45–49 in 1990, and some other series are truncated. Many series

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[3] 'Parity' is the number of live births a woman has had. Thus, parity 7 means she has had 7 live births, even if some are now dead.

were produced, and here only a summary will be provided along with a selection of the more interesting results.

For women with no or incomplete elementary education, the PPRs did not differ either between regions or over time periods. For women aged 45–49 the PPRs were above 0.9 for all progressions up to parity 7, indicating high fertility and little or no birth control.

For women with completed elementary education, aged 35–39 in 1995 and 1990, there is no difference in the Gaza Strip and West Bank PPRs up to parity 4 (Figure 4.7), but thereafter there is a slight divergence with Gaza progressions remaining above 0.9 and West Bank progressions declining although not by much. This suggests some fertility control in the West Bank particularly after the fifth child. For women with preparatory education aged 35–39, a similar pattern is observed, again with the key parity being 5 (see Figure 4.8). It should be noted however that the progressions remain very high and may just be a function of the slightly longer median birth intervals for West Bank women in their thirties (see, Table 4.4) which

Figure 4.7 Parity Progression Ratios. Women aged 35–39, completed elementary school
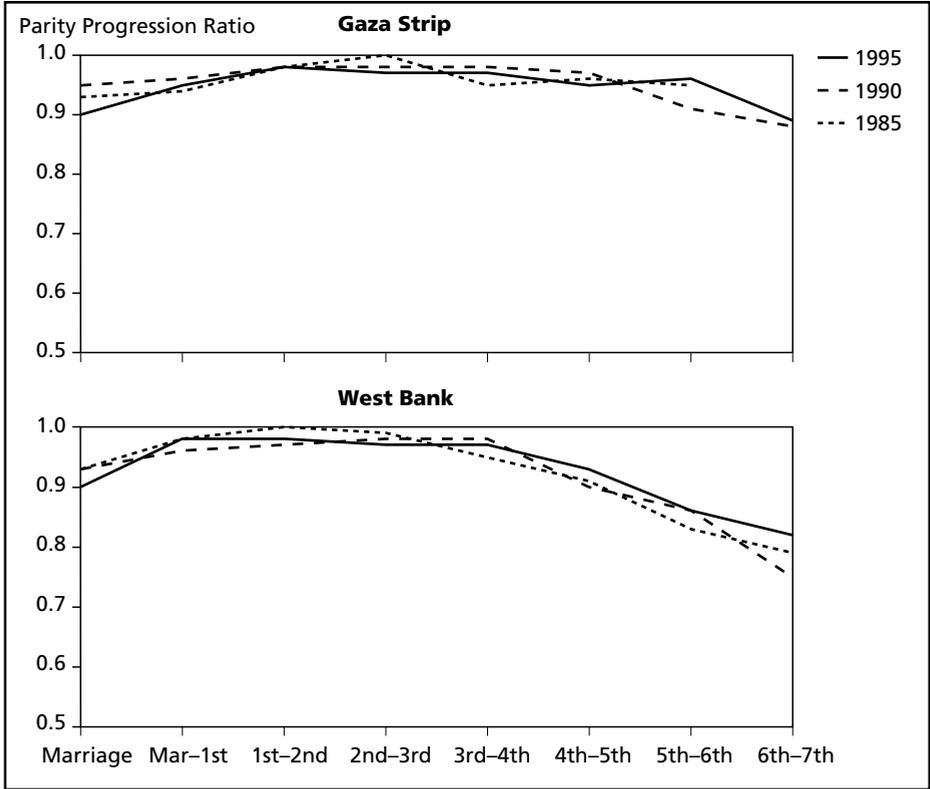
could be due to different breastfeeding patterns or to contraception used for spacing purposes.

The divergence in PPRs for the West Bank and Gaza Strip is most marked for secondary educated women (see Figures 4.9 and 4.10). For women aged 35–39 in the West Bank, the PPRs start to fall fairly rapidly after parity 3, although the fact that this same cohort has rather higher PPRs when aged 40–44 in 1995 indicates that this is probably due to spacing rather than stopping.

West Bank women have lower PPRs than Gaza women

With any amount of completed education there is evidence of slower family building amongst West Bank Palestinians which may be due to contraceptive use, or different breastfeeding patterns.[4] In the Gaza Strip, the PPRs remain high for all

Figure 4.8 Parity Progression Ratios. Women aged 35–39, completed preparatory school
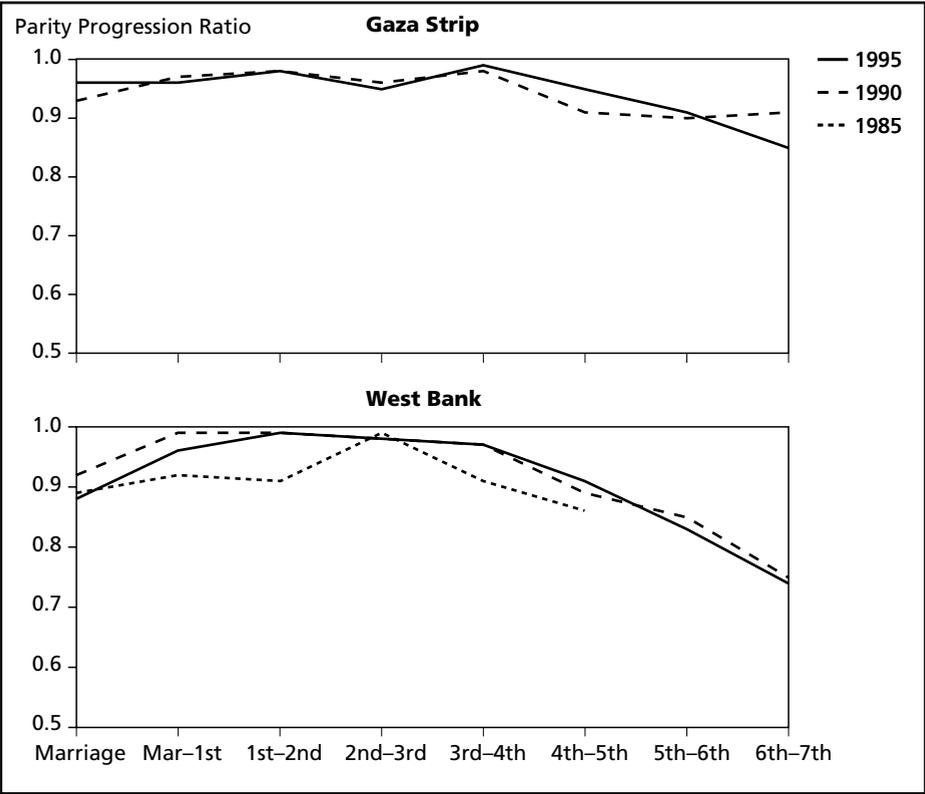
[4] Different breastfeeding patterns are unlikely to be a cause of the differentials in this direction. In most developing countries, an increase in maternal education is correlated with decreased breastfeeding.

educational categories with no evidence of any change over time. Whereas in the West Bank, women with secondary education appear to be controlling fertility (either spacing or stopping) after parity 3 – there is little evidence of any such control in the Gaza Strip.

4.8 Cohort fertility

Up until now, fertility estimates have been for specific periods and have been synthetic rates constructed for those time periods. It is possible that different cohort experiences are masked by these period measures, and it is always interesting to examine whether birth cohorts of women behave differently. Cohort analysis gives a full understanding of fertility performance, but only if all women have finished childbearing. In the DSOPT, we have one cohort (those born in 1940–44) who have

Figure 4.9 Parity Progression Ratios. Women aged 35–39, completed secondary school
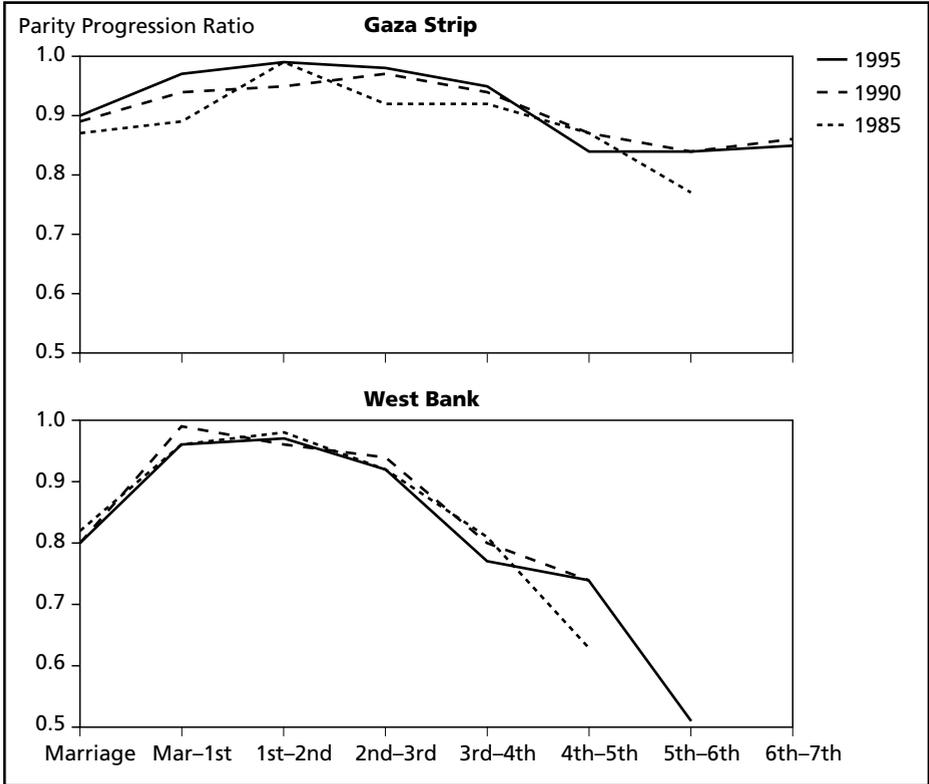
completed childbearing, and a second one (born 1945–49) who have effectively finished.

Cohort completed fertility and fertility up to age 30 and 35 (which permitted comparisons between more cohorts) were calculated for all women and educational sub-categories. This tells us little more than the period calculations with one notable exception.

A comparison of total cohort fertility by age 35 (Figure 4.11) shows that older Gaza women (born 1940–49) with secondary education did have substantially lower fertility than other educational groups, and also had lower fertility than women with secondary education who were born after 1950. In the West Bank, women with secondary education have always had lower fertility, but the interesting educational level is the preparatory. Again those born in the 1940s had substantially lower fertility than those of the same educational level born in later years.

It is true that the numbers of older women in these educational categories are rather small, but they are large enough to stand up to analysis. In fact, it is probably

Figure 4.10 Parity Progression Ratios. Women aged 40–44, completed secondary school
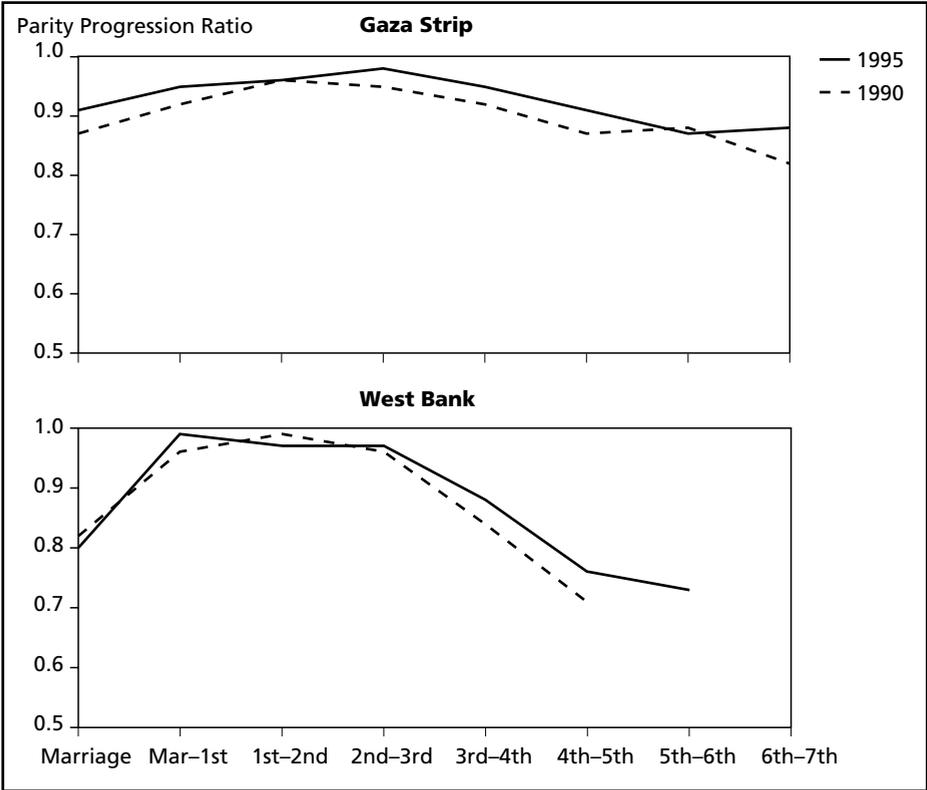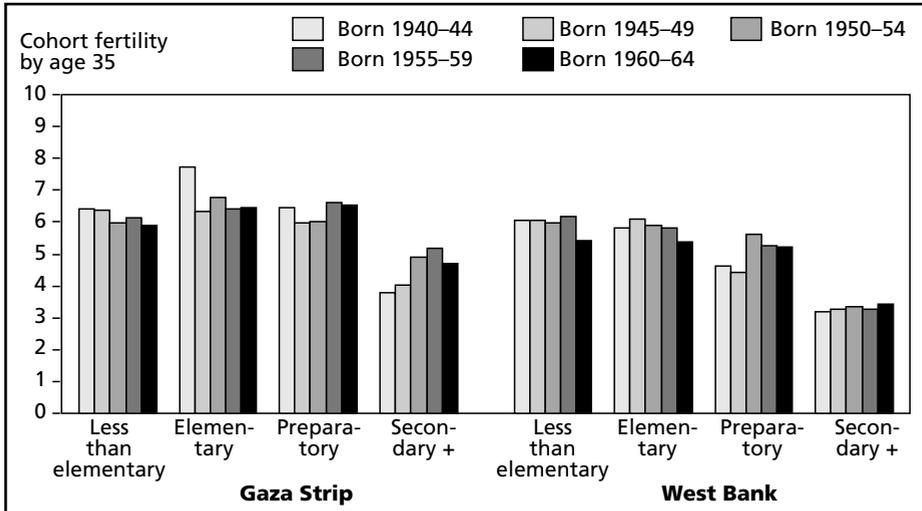
Figure 4.11 Cohort fertility by age 35: Education and region

| Cohort fertility by age 35 | Born 1940–44 | Born 1945–49 | Born 1950–54 |
| | Born 1955–59 | Born 1960–64 | |

Gaza Strip categories: Less than elementary, Elementary, Preparatory, Secondary +

West Bank categories: Less than elementary, Elementary, Preparatory, Secondary +

the very fact that there are few of these women that generates this phenomenon. When higher levels of education were relatively rare, those women who achieved them were probably rather unusual for a variety of reasons, one being that they, or their families, were able to innovate with female education. Thus, these women were different from the rest of Palestinian society, and such differences probably entailed having different fertility aspirations and access to modern contraception. Once education became much more widespread, partly as a function of UNWRA schools, those who continued to higher educational levels no longer had to be exceptional and probably were much closer in beliefs and behaviour to the larger mass of less educated women. The gradual erosion of previous educational fertility differentials, and the rise in fertility amongst those with better education show this. It is possible too that the educated minority of women in earlier years found employment easy to obtain because of the lack of competition. We have already shown that female employment is correlated with lower fertility; once there were too many educated women for the limited employment opportunities, another constraint on high fertility may have been lifted.

4.9 The effect of the Intifada and the Gulf War

As noted above, in many of the educational-regional subgroups there has been a rise in fertility over recent years, and it has been suggested that this might be due to the political uprising of the Intifada where people were exhorted to marry and have

children for Palestine (AFP News cited in Courbage 1994b; Marwan Khawaja personal communication). It is also possible that the Gulf war and the tensions which preceded it, leading to the return of many Palestinian migrant workers from the Gulf, may have caused a baby boom either through a spate of new marriages and first births or through a reduction in spousal separation (see chapter 3).

These issues have been examined using two methods. First the annual TFRs were calculated for each educational-regional subgroup (Figure 4.12). Because eight subdivisions and annual data reduces the sample to fairly small numbers we would expect an element of random fluctuation – and therefore we look for overall trends rather than precise annual peaks or troughs.

In the Gaza Strip, for all educational groups, except those with no education, there is a rise in the TFR of around one child from the period of 1985–87 to 1989–91 after which there are incoherent fluctuations. In the West Bank, the rise is most marked for the higher educated groups, but it is exaggerated because of the low fertility observed in 1987 – which should probably be ignored (see last section of this chapter). Again those women with no education do not show any trend.

Figure 4.12 Annual TFRs by region and education
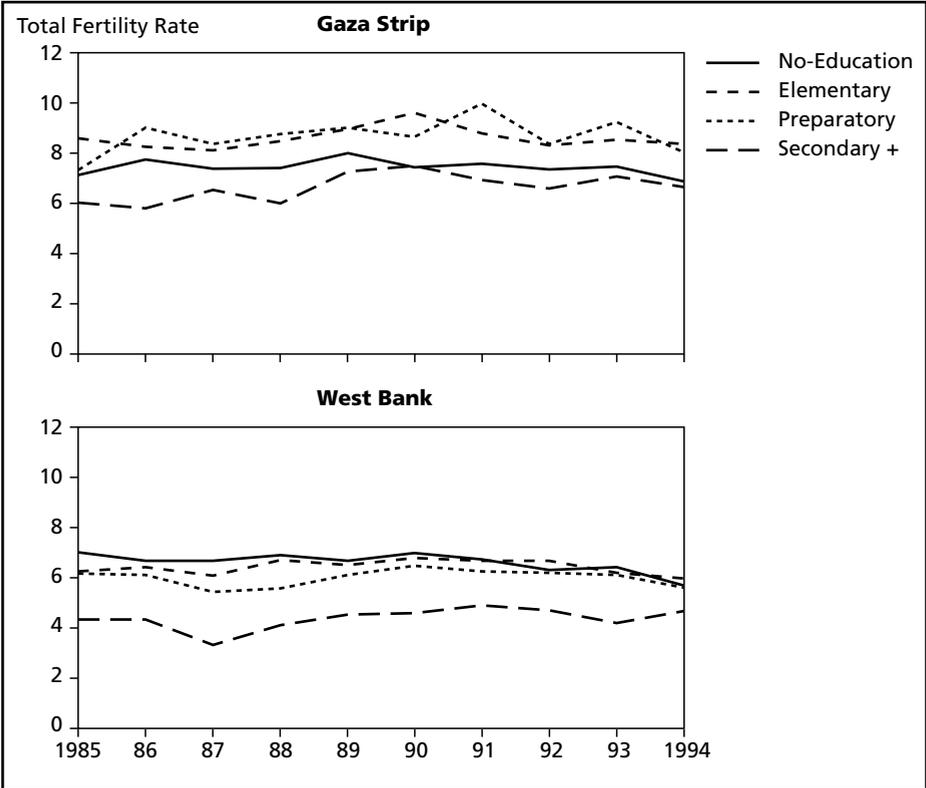
Thus it does appear that there is an Intifada effect but not a Gulf war effect on fertility. There are several reasons why the response to the Intifada may have differed by educational groups. As demonstrated earlier, women with no education have a natural fertility distribution with little evidence of any deliberate birth control. With a modal birth interval of 14 months and a median of around 20 months for women under 30 there is little potential for increasing fertility. Also, this educational category – particularly in the Gaza Strip – contains relatively fewer young women and is dominated by those over 35 who have less potential for increasing their fertility because of age-induced sub-fecundity and sterility.

The evidence from the West Bank has shown that it is likely that there is a low level of contraceptive usage amongst more educated women and that this appears to be mainly used for birth spacing -and thus these women are in the best position to be able to increase fertility if they wish to. In fact it may be that the apparent use of birth control for spacing rather than stopping is a function of the Intifada – and had it not happened, we would have observed less increase in the PPRs for cohorts between the late 1980s and the early 1990s.

The Intifada seen through Period Parity Progressions

Period parity progression ratios are another way of examining annual fluctuations in fertility and the effects of specific events on fertility. They also give an indication of the type of changing fertility behaviour; an increase in high order parities by women who had previously decided to stop childbearing or a general push towards more rapid childbearing in the early years of marriage.

Although this method should be an ideal tool for examining the effect of an event such as the Intifada, the results were very inconclusive, demonstrating a mild Intifada effect increasing the probabilities of having a first birth, and births over birth order 3 in 1989 and 1990 in the Gaza Strip. There was no obvious effect in the West Bank.

4.10 Comparisons with neighbouring populations

Palestinian fertility stands out amongst neighbouring populations because it is so high (Table 4.6), and lacking in educational differentials. Fertility was similar to Jordan in 1981 – but in Jordan, there have been substantial declines in fertility since then, as observed also in Syria. Egypt, especially rural Egypt, which is much less developed than Palestine, has much lower fertility. In Syria, Courbage (1994b) notes an increase in fertility for each educational group between 1970 and 1981, as has been observed in Palestine in the DSOPT. However, in Syria at that time, the levels of education were far lower than in contemporary Palestine, and both secondary educated and preparatory educated women had substantially lower fertility than observed here (see, Table 4.7).

Table 4.6 Comparisons of fertility in Occupied Territories with neighbouring countries

Country	Total	Urban	Rural	Refugee camp
Gaza Strip DSOPT 1990–94	7.78	7.68	8.93	7.46
West Bank DSOPT 1990–94	5.84	5.13	6.34	5.81
Egypt 1991	4.55	3.31	5.63	
Jordan JFS 1974–76	7.4	6.8	8.0	
Jordan JPFHS (1990) 1987–90	5.6			
Jordan LCS 1994–96	4.5	4.3	4.8	4.3
Syria 1995	4.8			(all refugees)
Iraq 1995	5.4			
Lebanon 1995	2.8			
Yemen 1995	7.4			

Jordan JFS & JPFHS: JPFHS Table 3

JLCS: Jordan Living Condition Survey, Fafo, 1998

Egypt 1991: EMCHS Table 7.11

Syria, Iraq, Lebanon, Yemen: World Bank 1997

Table 4.7 Comparison of educational differentials with neighbouring countries

|	No completed education	Read and write	Primary	Preparatory	Secondary	Tertiary
West Bank 1994	5.7		6.0	5.6	4.7	
Gaza Strip 1994	6.9		8.5	8.1	6.7	
Jordan 1981	8.3	7.6	7.6	5.8	3.4	3.3
Egypt MCHS 1991	5.7	4.7	3.7		3.0	
Syria 1981	8.3	7.0	5.8	4.5	3.6	3.0
Jordan LCS	6.1		4.7		3.4	3.9

Source: Jordan Demographic Survey: Table 4.8

Syria: Courbage 1994b (estimates from graphs)

In Syria, Courbage (1994b) suggests that the lack of fertility decline within educational groups during the 1970s was because of economic growth, and few employment possibilities (or necessity) for women. More recent fertility declines since 1981, he ascribes to the need for women to work outside the home, and the incompatibility of such work with high fertility. Such may also be the situation in Palestine, where, especially in the West Bank, those women who do work have lower marital fertility (although it is hard to discern cause and effect). Only very small numbers are in the labour force – even of those with secondary education. Thus, it might be argued that until there are more employment opportunities for women, fertility is unlikely to decline. Also given the extremely high fertility among the highly educated segment of the population there is little chance of a community-wide perception of lower fertility influencing those with less education – a phenomenon identified in Latin America (Martin and Juarez 1995).

4.11 Palestinian fertility trends

There are few historical fertility data available for Palestine. However, data published by the ICBS and compiled by the PBS (1994) give age specific fertility schedules for both the Remaining West Bank and the Gaza Strip for 1992 (and some earlier years). The 1992 data have been compared with the DSOPT in Figures 4.13 and 4.14. There is no close correspondence between the ICBS schedules for 1992 and those of the DSOPT. However, the ICBS data give rather uneven (and in the Gaza Strip -implausible) fertility curves which suggests that there may be some errors.

Figure 4.13 Age specific fertility 1990-94: Gaza Strip from DSOPT & ICBS
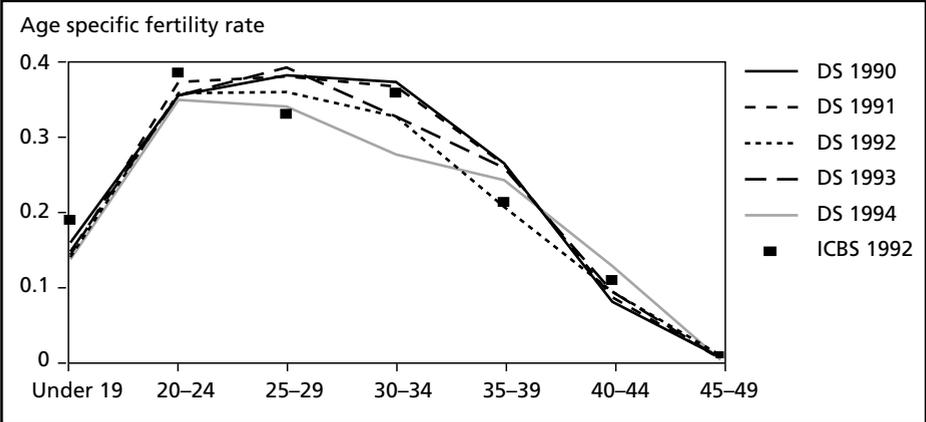
The same source (Table 2.3 in PBS 1994) gives earlier ICBS fertility data. Elul's analysis of the Falcot study gives CEB by year of birth and some fertility data from the census of 1967; these are presented in Table 4.8, and suggest that the Falcot data suffered from underreporting of children ever born for older women. For younger women we would expect the DSOPT to have higher values, because it was undertaken three years later.

Figure 4.14 Age specific fertility 1990-94: Remaining West Bank from DSOPT & ICBS

Age specific fertility rate

Legend: DS 1990, DS 1991, DS 1992, DS 1993, DS 1994, ICBS 1992

Y-axis: 0, 0.1, 0.2, 0.3, 0.4

X-axis: Under 19, 20–24, 25–29, 30–34, 35–39, 40–44, 45–49
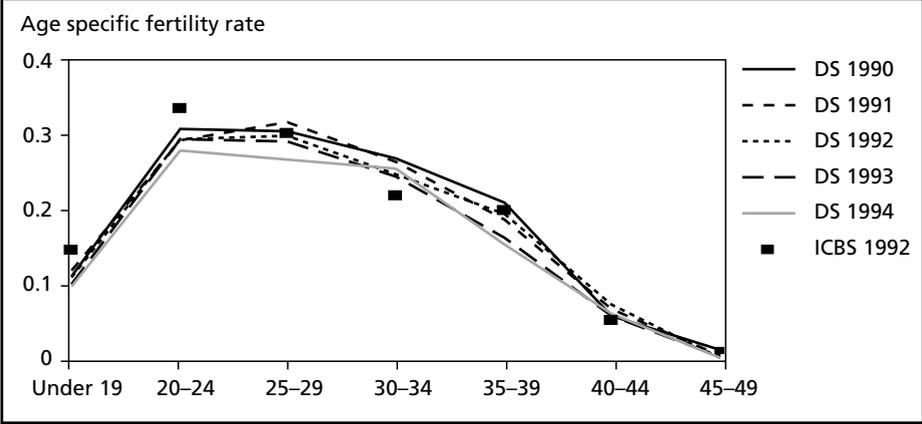
Table 4.8 Reported Children Ever Born (CEB) by year of birth of mother

YOB	Gaza Strip FALCOT	Gaza Strip 1967 census	Remaining West Bank FALCOT	West Bank 1967 census	Arab Jerusalem FALCOT	Arab Jerusalem DSOPT
1910		8.5		8.3		
1915		8.5		8.5		
1920		8.7		8.7		
1925		8.1		8.4		
		Gaza Strip		Remaining West Bank		
1903–27	7.7	DSOPT	7.9	DSOPT	7.1	
1938–42	7.3	8.7	7.5	8.4	5.5	7.8
1943–47	8.0	7.9	7.4	7.9	6.7	7.9
1948–52	6.5	7.8	6.9	7.6	5.2	6.4
1953–57	6.2	7.7	5.2	7.4	4.8	5.9
1958–62	6.2	6.3	5.0	5.9	3.1	5.2
1963–67	3.7	4.4	2.7	4.3	2.7	3.8
1968–72	1.6	2.8	1.6	2.6	1.4	2.3
1973–77	0.2	1.4	0.2	1.3	0.1	1.2

Fertility differences between Gaza Strip and West Bank are recent
From this table it appears that the Gaza Strip and the West Bank had very similar fertility levels in the past and that the divergence is fairly recent; cohort fertility differentials are less marked than period ones although this may change as the more educated West Bank cohorts progress through their reproductive years. Jerusalem is the main outlier with lower reported parities for all cohorts born after 1948. All previous tables in this chapter included Jerusalem in the statistics for West Bank; the remaining West Bank is more similar to Gaza Strip.

A further comparison of the DSOPT estimated total fertility rates with those produced by the Israeli CBS from registration data (ICBS 1996:40) is also possible (see, Table 4.9)

The similarity between the TFRs from two totally independent data sources using different methodologies is remarkable. The only notable difference is the low fertility estimated from the DSOPT in 1987. This is anomalous and may be the result of sampling; it suggests that some of the apparent rise in fertility in the West Bank after 1987 (see, section on Intifada) is spurious and a function of this erroneous estimate.

Table 4.9 DSOPT estimates of TFR compared to those produced by ICBS

Period	Judea & Samaria (ICBS)	Remaining West Bank (DSOPT)	Gaza Area (ICBS)	Gaza Strip (DSOPT)
1968–72	7.72		7.33	
1973–77	7.78		7.68	
1978–82	7.12		7.26	
1983–87	6.5	6.35	7.04	7.5
1988–92	6.27	6.20	7.84	7.85
Year				
1985	6.31	6.58	6.77	7.22
1986	6.20	6.09	7.02	7.43
1987	6.31	5.67	7.28	7.46
1988	6.12	6.14	7.49	7.52
1989	6.10	6.12	7.82	8.12
1990	6.44	6.42	7.90	8.12
1991	6.44	6.30	8.13	8.12
1992	6.24	6.14	7.85	7.5
1993		5.82		7.93
1994		5.62		7.42

4.12 Discussion

Palestinian fertility, particularly that of the Gaza Strip, is a demographic conundrum – with persistently extremely high fertility, rising recently for most educational subgroups at the same time that the overall education levels of the female population are increasing. In both the Gaza Strip and the West Bank fertility is achieved through very short birth intervals, especially whilst women are in their 20s, and an early start to childbearing with age at first birth around 20 years.

Fertility in Palestine is much higher than would be expected from a comparison with neighbouring countries, from the high levels of female education, from the levels of infant mortality and probably from the levels of population density. Thus, any explanation must include a consideration of what makes this Palestinian population unique – which is clearly its political history and its existence as an occupied nation. Palestinians in Israel (TFR of 4.69 for Muslims in 1995) and in Jordan (TFR 4.88 for refugees 1990–94, Randall 1998) now have much lower fertility than those in the Occupied Territories. In the mid 1980s there is some evidence that fertility was beginning to decline amongst some subgroups, especially the more educated West Bank women (amongst whom it had earlier been much lower), and this decline was arrested during the Intifada. This is another indication of the political determinants of fertility. There was not much potential for fertility increase during the Intifada, because it was already so high – but the slight rise in fertility suggests there was an effect. In the last few years, the slight decline noticeable in the mid-1980s appears to have been resumed.

Although there are fertility differentials between socio-economic and regional populations in the Occupied Territories, these are determined mainly by different marriage patterns rather than fertility limitation within marriage. The only two subgroups of the population who appear to be using more fertility control are the Christians (a very small minority and of whom there are virtually none in Gaza Strip) and working women – although even here marriage is a major influence. However, it is probably employment that holds the key to future fertility dynamics. If female employment becomes both more needed (due to economic crisis) and more available – then the high fertility cannot be maintained; with birth intervals of less than 20 months in their 20s, women of this age would be unable to work outside the home.

However in this population predictions are uncertain, because of the highly political context in which fertility occurs. Probably the only serious prediction is that fertility cannot rise further, unless a substantial number of young men appear. The relatively high proportions of unmarried women at each age are the main brake on even higher fertility.

Chapter 5 Fertility Preferences

Sara Randall

A number of questions were asked about fertility preferences. These questions were only asked of ever-married women; and some of currently married women only. Women were questioned about their ideal number of children, whether they want any more children and if so whether they want another pregnancy now or later. They were also asked about their perception of their husband's fertility preferences compared to their own, and whether they had actually discussed such matters with their husband. Because no data are available on contraceptive use, we have to infer whether women are acting on their preferences by their actual fertility outcomes: their total numbers of living children and their birth spacing.

5.1 Ideal number of children

Women were asked about their ideal number of children in their whole life. There is a clear modal preference for four children, with around ten percent wanting respectively 2, 3, 5 and 6 children. About 15 percent of women gave a non-numeric

Figure 5.1 Ideal number of children. Ever married
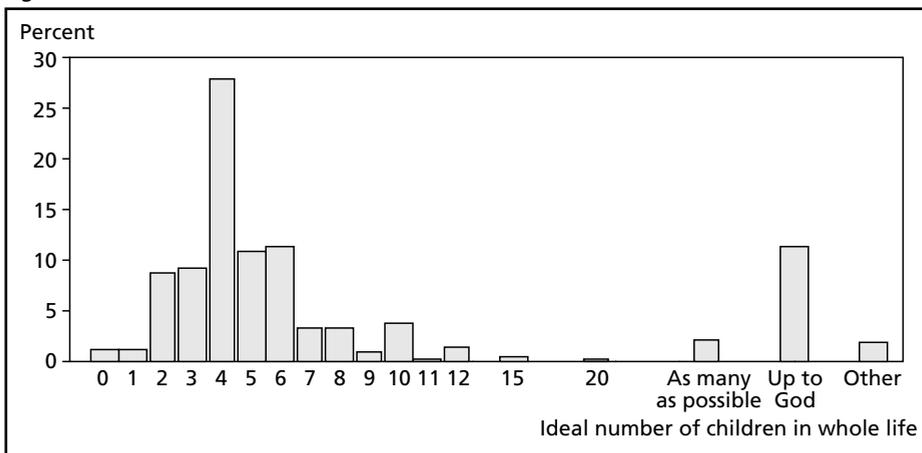
response such as "as many as possible" or "what God gives". Very few women think that 0 or 1 child is ideal, but there is a tail preferring larger family sizes, especially if one considers that the non-numeric responses probably fall into this group.

Older women more likely to give non-numeric responses

Given that women giving a non-numeric response are unlikely to control their fertility, and represent a conservative sector of the population it is interesting to observe how this differs by subgroup. In general, the higher proportion of non-numeric responses given by a group, the higher the ideal number of children expressed by those who give a response (Table 5.1), suggesting that both are part of the same phenomenon. The exception to this is in Gaza, with slightly lower non-numeric response but higher ideal number of children – this is reflected in the very high observed fertility in Gaza. For every socio-demographic subgroup in Table 5.1, the modal ideal number of children is 4.

Age has most effect on ideal family size, with those over 40s showing substantially higher preferences within every socio-demographic subgroup. However, even where age is strongly correlated with other characteristics, as education, age always has an independent effect with the over 40s having a higher ideal number of children.

If one compares these ideal numbers of children with observed fertility levels, it is clear that there are substantial differences, which could be interpreted as an unmet need for contraception. However, there is also the possibility that women do not relate the question of ideal number of children to their own behaviour and experience, and that expressing an ideal which is below their actual number of children is not actually indicative of a desire to change their own behaviour.

Figure 5.2 Mean ideal number of children by education and age
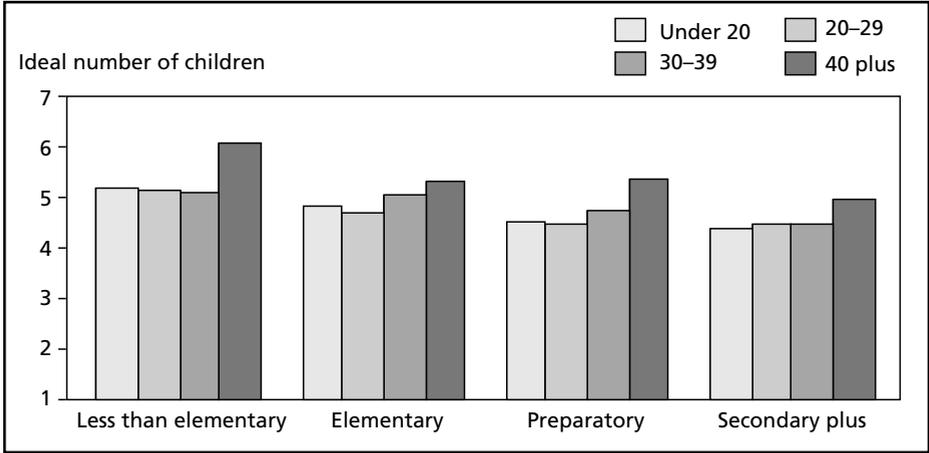
Table 5.1 Mean ideal number of children and non-numeric responses by selected background variables

Background variable	Mean ideal number of children	Percent giving nonnumeric response	N
Age			
Under 20	4.6	11.4	1384
20–29	4.6	11.2	5877
30–39	4.8	13.5	4696
40–54	5.6	24.3	4248
Education			
Below Elementary	5.6	26.3	4428
Elementary	4.9	15.2	3932
Preparatory	4.6	10.8	3724
Secondary or more	4.5	7.7	4053
Married to kin			
Same hamula & closer	5.1	16.7	8069
Different hamula	5.0	16.7	2680
Unrelated	4.6	12.8	5429
Labour force participation			
Not in labour force	4.9	15.6	5267
In labour force	4.5	11.1	938
Refugee status			
Refugee	5.1	13.7	6638
Non refugee	4.8	16.5	9565
Region			
Jerusalem	4.3	14.5	1073
Remaining West Bank	4.7	16.0	9348
Gaza	5.3	14.4	5784
Religion			
Muslim	4.9	15.6	15839
Christian	3.7	5.3	365

5.2 Ideal numbers of children and current family size

One way of examining the degree to which the ideal number of children might be influencing actual behaviour is to compare the ideals with the observed reality. Obviously, for younger people who have not finished reproducing, their ideal is likely to be above their actual family size. However, it is clear from Table 5.2 that the percentage of women expressing specific ideal numbers of children are fairly constant whatever the actual number of living children. There is always a peak where the preferred number equals the actual number. This is likely to be a post-hoc rationalisation.

Those for whom the ideal number is more than current living children are made up of two separate groups of women with different fertility dynamics. The first group, likely to be younger women, are those who have not yet had the time to achieve their ideal family size, most of whom probably will achieve it by the end of their reproductive lifetime. The other group, probably dominated by older women, will be those who have failed to achieve their ideal number of living children, either through excess mortality of their children, divorce or widowhood, or through sub-fecundity. The heterogeneity of this group must be kept in mind when interpreting the results.

Table 5.2 Percentage women with x living children by ideal family size

Ideal children	Living children									
	0	1	2	3	4	5	6	7	8	9
0	**0.8**	0.6	1.3	1.2	0.5	1.11	1.4	1.4	1.6	1.11
1	2.2	**1.6**	1.8	1.0	1.4	0.9	1.09	0.5	0.9	1.5
2	9.5	9.8	**10.7**	8.6	10.8	9.1	9.3	7.9	5.2	5.4
3	9.9	11.7	9.2	**15.8**	4.8	9.6	8.7	8.9	6.8	6.5
4	32.2	29.1	34.4	30.3	**37.6**	24.5	23.8	22.0	23.6	20.2
5	10.3	13.3	11.9	12.2	10.7	**20.1**	3.8	6.8	7.9	10.0
6	10.3	12.0	10.0	12.4	13.4	10.4	**23.0**	7.2	6.6	7.6
7	2.1	2.5	2.7	1.8	3.5	3.1	3.54	**12.8**	1.6	1.2
8	1.7	1.5	1.9	1.6	3.05	2.9	3.1	5.6	**13.6**	1.7
9	0.5	0.4	0.4	0.4	0.4	0.6	0.8	1.3	1.6	**7.3**
10	2.5	2.5	2.5	2.5	3.4	3.5	3.68	4.7	5.3	6.1
11	0.1	0.3	0.0	0.0	0.1	0.0	0.1	0.1	0.3	0.6

5.3 Does "ideal number of children" have any real meaning for Palestinian women?

As has been seen in the fertility chapter, the achieved fertility of Palestinian women is extremely high considering their educational achievements and the general socio-economic situation of the populations. This is particularly marked in Gaza and may have been influenced by the Intifada. Certainly it would have been difficult to surmise an ideal family size of 4 from the total fertility rates. So does this mean that these women misunderstand the question of ideal number of children? Clearly not, given the relatively high proportion who gave a numeric answer to the question. However, what is unclear from this question is whether the ideal expressed by any particular woman is an abstract concept of a social ideal, a number which might be seen as ideal under certain circumstances, but not the ones under which they find themselves. In the absence of any data on contraceptive use, this is somewhat difficult to establish. A substantial excess of children over the ideal number could reflect either the inappropriateness of the concept for these women, or an inability to obtain and use contraception effectively. The latter seems unlikely; contraception is readily available in clinics throughout Gaza and the West Bank. The majority of women are literate and have access to wider sources of information. Neighbouring countries, Egypt, Jordan and Israel all have widespread knowledge about and availability of contraceptive methods and much lower fertility (Rashad 1997).

One method for investigating the validity of the expressed ideal family size is an examination of the consistency of women's behaviour according to the relationship between their stated ideal family size, their number of living children and their other expressed fertility desires. Thus women can be divided into four categories (see, Table 5.3): Those who have less living children than their ideal family size, most of whom will go on to have more children; those whose ideal family size is the same as their living children; those who have more children than their ideal family size; and those with a non-numeric ideal family size.

Predictably, most very young women want more children than they have already, whereas around 40 percent of those over thirty years of age already have more than

Table 5.3 Percentage of women by age and relationship between living children and expressed family size

Age	Living children < ideal	Living children = ideal	Living children > ideal	Non-numeric ideal	N (unweighted)
< 20	85.2	2.6	0.8	11.4	1378
20–29	63.5	12.3	13.1	11.2	5867
30–39	27.1	18.5	40.9	13.5	4693
40+	20.0	17.0	38.6	24.3	4241

their ideal. This would suggest a substantial unmet need for contraception. However, despite expressing an ideal family size, which they have already achieved or exceeded, a substantial proportion of women also state that they want a further child (Table 5.4).

Table 5.4 Percent of women, pregnant and/or wants another child, who have attained or exceeded ideal family size by age

Age group	Percent pregnant	Percent want another child	N (un-weighted)
< 20	12.8	63.8	47
20–29	20.2	37.8	1600
30–39	14.1	17.6	2756
40–49	2.8	2.3	2341

Figure 5.3 Open interval according to fertility desires. Ever-married women aged 30–39
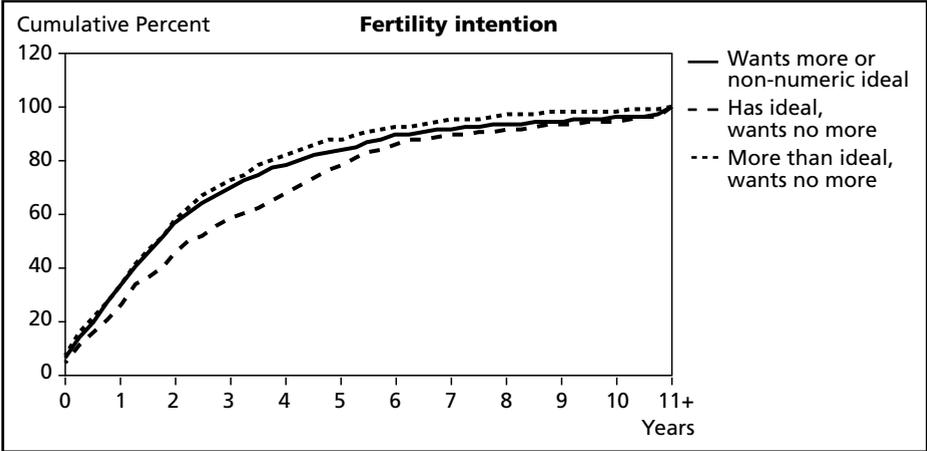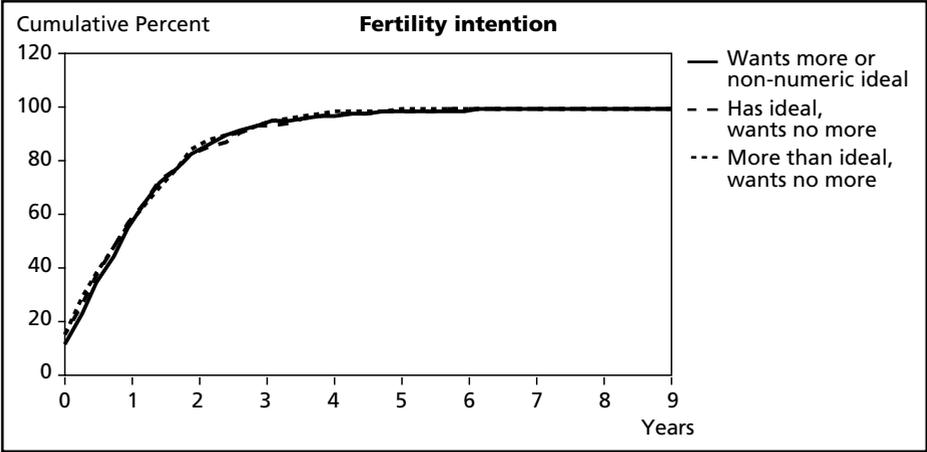

Figure 5.4 Open interval according to fertility desires. Ever-married women aged 20–29

Although the percentage of those pregnant or those wanting a further child declines with age, a substantial proportion of women who have reached their stated ideal family size want to have another child. This suggests that for many women the expressed ideal family size is not expressing a personal ideal or goal but some other abstract form of ideal.

For those women who have achieved their ideal family size it is possible to see if there is any evidence that they are actually controlling fertility by examining the duration of the open interval. Our hypothesis is that women who have achieved their ideal number of living children will have a longer open interval[1] than women who either have not attained their ideal, or women who still want another child, or

Figure 5.5 Open interval by fertility desires. Women aged 30–39: Gaza and West Bank
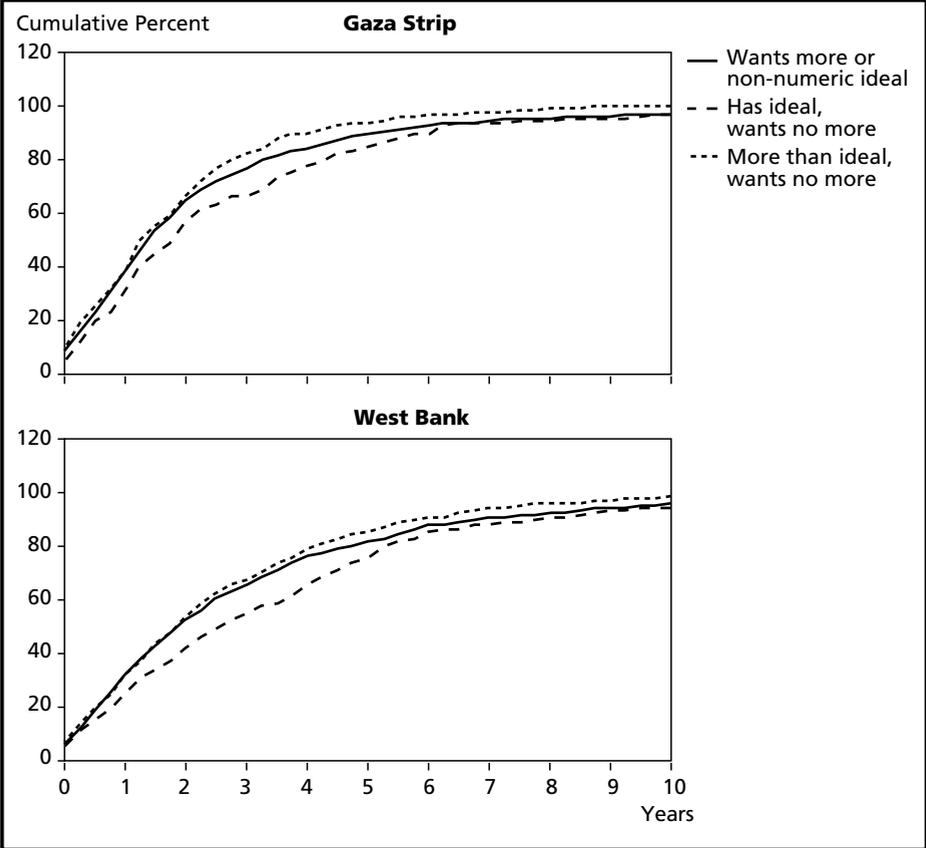
[1] The open interval is the period of time since the last birth. If women are stopping childbearing through use of contraception, their open interval is likely to be longer than that of non-contraceptors.

women who have a non-numeric ideal. Women who had achieved their ideal family size were considered in two groups: those who had exactly their ideal and those who had more than their ideal.

Women who have exactly their ideal family size and who are in their thirties do have longer open intervals, whereas those in their twenties demonstrate no appar-

Table 5.5 Preferences for more sons and daughters by background variables

Background variable	Number more girls desired	Number more boys desired	Total more Desired	Ratio of Desired boys to girls
Age				
< 20	1.81	2.58	4.39	1.43
20–29	1.28	2.17	3.45	1.69
30–39	0.77	1.77	2.54	2.30
40+	0.83	1.82	2.65	2.19
Education				
Below elementary	1.22	2.25	3.47	1.84
Elementary	1.25	2.19	3.44	1.75
Preparatory	1.30	2.13	3.43	1.64
Secondary or more	1.20	2.08	3.28	1.73
Religion				
Islam	1.25	2.16	3.41	1.73
Christian	0.78	1.18	1.96	1.51
Kin marriage				
Same hamula	1.28	2.16	3.44	1.69
Different hamula	1.26	2.09	3.35	1.66
Unrelated	1.17	2.15	3.32	1.84
Labour force status				
Not in labour force	1.26	2.17	3.43	1.72
In labour force	0.96	1.80	2.76	1.88
Refugee status				
Refugee	1.25	2.27	3.52	1.82
Non refugee	1.24	2.05	3.29	1.65
Location				
Town/City	1.24	2.03	3.27	1.64
Refugee Camp	1.29	2.37	3.66	1.84
Village	1.22	2.13	3.35	1.88
Region				
Jerusalem	1.19	1.70	2.89	1.43
Remaining West Bank	1.18	2.04	3.22	1.73
Gaza	1.33	2.36	3.69	1.77

ent fertility control even if they have reached their ideal family size (12.3% women aged 20–29). These longer birth intervals for women in their thirties with their ideal family size are evident both in the West Bank (including Jerusalem) and in Gaza. The fact that those with the shortest intervals are those with more than their ideal but want no more, may reflect a selection effect whereby these women are more fecund.

Thus, we may conclude that some women, having reached their thirties and achieved their ideal family size are in fact exercising fertility control. However, this is only a small minority of women – 3.2 percent in Gaza (11.2% 30–39 year olds) and 4.8 percent in the West Bank (15.5% 30–39 year olds).

5.4 Sex preferences

In many Muslim countries there is a preference for boy children, which may be reflected both in expressed preferences, and sometimes in higher female mortality. Currently married women were asked how many more boys and girls they want, thus providing evidence for this phenomenon in the Palestinian population (Table 5.5). Overall numbers of more preferred children are remarkably homogenous by socio-economic grouping, as are the sex preferences with about 1.6 boys wanted for every girl. Son preference does however seem to be declining with younger women having much less marked preferences.

5.5 Desire to have another child

We have already shown that the concept of ideal family size appears to have little concrete meaning for most Palestinian women in terms of acting upon their stated preferences. However, the question on whether a woman wants another child may be more immediately understood and responded to. A logistic regression was undertaken to examine the main factors influencing a woman's desire for another child. We test the following hypotheses.

1. Age:
   Younger women will want another child more than older women.

2. Region
   Women in Gaza will be more likely to want another child than women in the West Bank or Jerusalem.

3. Education

Women with secondary education will desire another child less than women with less education.

4. Living children

Women with less than 4 children will desire another child more than those with intermediate (4,5,6) living children. Women with large numbers of living children will desire more children.

5. Ideal family size

Women with less children than their ideal family size and those with non-numeric ideals will desire another child more than those who have attained their ideal family size. Those who have exceeded their ideal will be less likely to want more than those who attained their ideal.

6. Husband's desires

If the husband wants more children than the wife, then she will want another child.

Table 5.6 Odds ratios of wanting to have another child

Variable	Odds ratio
Age of woman	
< 20	1.72
20–29	1.00
30–39	0 .52
40+	0.11
Region	
Remaining West Bank	1.00
Jerusalem	0.64
Gaza	1.45
Living children	
0 children	15.33
1–3 children	1.42
4 children	1.00
5–6 children	0.61
7+ children	0.32
Living children versus ideal	
Have ideal number	1.00
Have less than ideal	6.63
More than ideal	1.30
Non-numeric ideal	3.28

Note: All covariates are significant at the 0.05 level.

7. Mortality effect

Women who have experienced a child death will be more likely to want another child than those who haven't.

The variables, presented in Table 5.5, are those emerging from a stepwise logistic regression with "wants another child" as the dependent variable. Predictably, age is an important factor, with teenagers almost twice as likely to want another child as women in their twenties, and those in their thirties only half as likely. It is very interesting that region has a very profound effect on desire for more children with women from Gaza showing a significantly higher odds ratio of desire to have another child - all the more striking when one considers that they already have much higher fertility than the West Bank. The number of living children has an effect on desire for another child independently from the age of the woman. Whereas it had been predicted that very high parity women would want more children than those with 5–6 living children because of the selection effect operating on this group, such predictions were not fulfilled, and the odds ratios decline consistently with the number of living children. The relationship between a woman's living children and her stated ideal family size also influences the odds of her wanting another child. This result does corroborate the suggestion above that women who have already exceeded their ideal family size have less concept of ideal family size as something to aspire to, compared to those who actually have their ideal family size. This does suggest that ideal family size is not just a post-hoc rationalisation for all women. The odds ratio for women who have exceeded their ideal family size is significantly higher than that of those who already have exactly their ideal. Predictably, women with a non-numeric ideal have a much higher odds ratio.

It is also interesting to note those variables which have no quantifiable influence on a desire to have more children once everything else is controlled for. Education, labour force participation and kin marriage - three factors, which might indicate changes in attitudes to new ideas - have no significant effect. Previous experience of mortality has no influence and neither does a woman's belief that her husband wants more children than her.

5.6 Conclusions

In the absence of data on contraceptive use, it is difficult to establish details of Palestinian fertility preferences. Although the majority of women express an ideal of 4 children, clearly for many this is an abstract ideal rather than an aspiration in their own lives. That being said, there is some slight evidence of fertility control amongst one sub-group of women in their 30s in both Gaza and the West Bank; those women who have achieved their ideal family size and want no more children. However such women in their twenties do not appear to be acting on their preferences.

There is a slight reduction in son preference amongst younger women, but given the very high fertility, this is unlikely to have any effect on achieved fertility. The suggestion in the fertility chapter that Gaza was unique in its pro-natalism and high fertility is reiterated here through the regression analysis of desires for another child.

Overall, the evidence from the fertility preferences combined with the actual fertility behaviour outlined in chapter 4 suggest that current high fertility in the occupied territories is likely to be maintained in the foreseeable future - especially in the Gaza Strip.

Chapter 6 Mortality

Jon Pedersen

The aim of this chapter is to provide an overview of current mortality in the West Bank and Gaza Strip and also to trace aspects of changes in recent years. Finally, we will discuss some of the correlates of mortality, in particular those of infant and child mortality.

The main source of data on mortality in the West Bank and Gaza was, up to this survey, the Israeli Ministry of Health (IMH) vital registration system. The 1967 Israeli Census of the West Bank and Gaza Strip provided infant mortality estimates based on indirect techniques, making it one of the first Censuses to employ such methods. In addition, there are a number of surveys with limited geographical coverage, but the 1991 FALCOT survey (Heiberg and Øvensen 1993) and the 1992 UNICEF survey (Abu-Libdeh el al. 1992) are the only ones that cover the whole Palestinian population of the West Bank and Gaza Strip. Recently, the Palestinian Ministry of Health has started to provide some mortality statistics. In general, the available sources provide infant and child mortality estimates only.

All these sources of information paint roughly the same picture: In 1967, the infant mortality was around 150 per 1000 and it has declined substantially since then, but exactly how much has been contested. The IMH data showed a gradual decline to a level of about 25 in 1992, although it was recognised by the Ministry that some infant deaths went unreported (IMH 1992). However, often-cited figures of an infant mortality of around 50 per 1000, are difficult to reconcile with the Israeli data because such a level would imply that 50 percent of the deaths went unreported.

Adult mortality has also been difficult to estimate in the West Bank and Gaza Strip. Registration of adult deaths has not been perfect. However, the degree of under-registration is not well known for several reasons. First, age data are of substantially poorer quality for those born before 1967 than after. Second, there are indications that different groups of the population have had different propensities to register the death of their close relatives. Thus, refugees would have an interest in making it appear that a deceased relative was still living, if that could retain any benefits for the family. Today this is unlikely to be a major problem, except for a small number of the so called "special hardship cases" that in UNRWA terminology

are those that currently can receive support based on household characteristics. Under-registration may have been more of an issue in the past when direct support was more common. A third problem when trying to verify age patterns of adult mortality is that the age structure is heavily influenced by migration.

The DS attempted to arrive at mortality estimates in several different ways. First, women were asked about all the children they had ever given birth to, and whether or not each child was still living. If a child was dead, the mothers were asked about the age at death. These data can be used to supply direct estimates of infant mortality. Second, women were asked if their sisters were alive and if not whether they had died whilst pregnant or after delivery. These data can be used for estimation of maternal mortality. Third, for every individual it was recorded whether his or her father and mother was still alive. These "orphanhood" questions can be used to estimate adult mortality. Fourth, all ever married persons were asked if their first spouse was still living. Again, this question may be used to establish adult mortality. Fifth, the head of the household was asked if any person from the household had died during the preceding two years. If so, the age at death and sex of the deceased was determined.

6.1 Infant and child mortality

Infant and child mortality levels were estimated, using a direct method based on the birth history data[1]. For each child, women were asked to supply the birth date, sex, survival status, and age at death if the child was dead. For children that died before they reached one month, the age at death was recorded in days, for those one month and older but less than two years it was recorded in months, and for older dead children age at death was recorded in years. If the date of death was known, that was recorded. As can be seen from the table of calendar year ratios (Appendix 1), the recording of children appears good, but not perfect. Also, as shown by Figure 6.1, the ages at death follow a plausible pattern, although the ages show some heaping especially at 12 months. This probably shifts some deaths from below one year to above one year, thus deflating infant mortality and inflating mortality above one year. As Figure 6.2 shows, the problem is less marked for the deaths that occurred during the last 10 years. Such age shifts are quite common in surveys such as the Demographic Survey, but here the effect is not large enough to warrant special adjustments.

[1] It is also possible to estimate infant and child mortality from these data using children ever born/children surviving techniques, but there is no special reason to do so as the direct methods are possible.

The method of estimating infant and child mortality employed here is the synthetic cohort approach as used in the Demographic and Health Surveys conducted by Macro International. Curtis (1995) describes the details of the estimation procedure.

In the West Bank and Gaza as a whole during 1990–94, the infant mortality was found to be 30 for males, and 24 for females. The child mortality, i.e. mortality under 5, was 37 for males, and 29 for females. The West Bank exhibits a lower
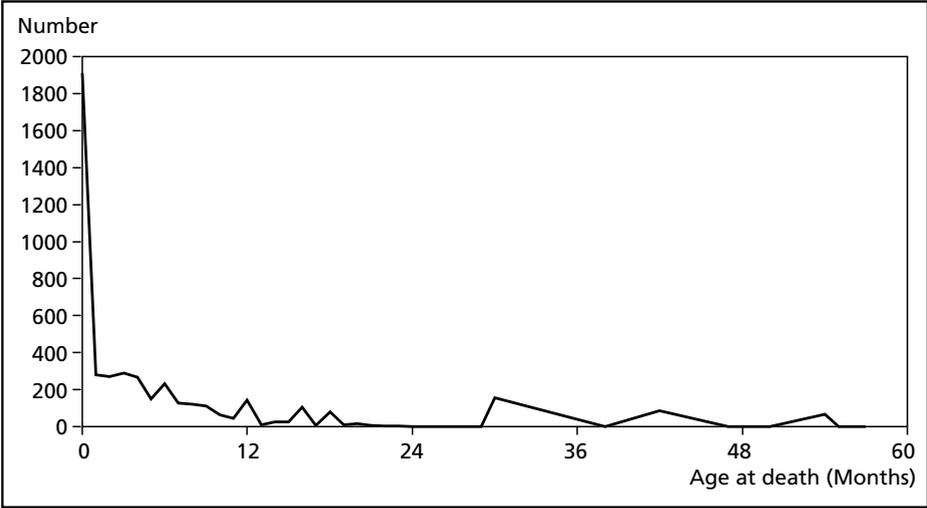
Figure 6.1 Age at death

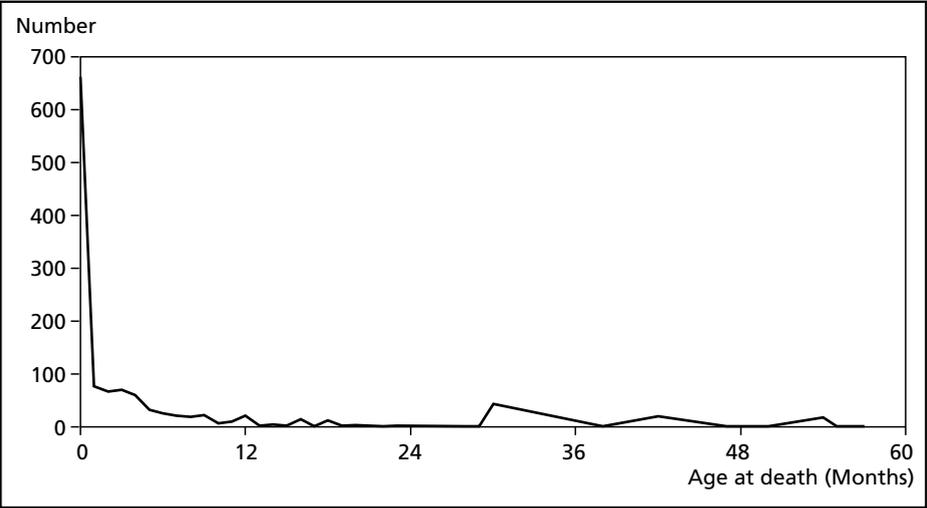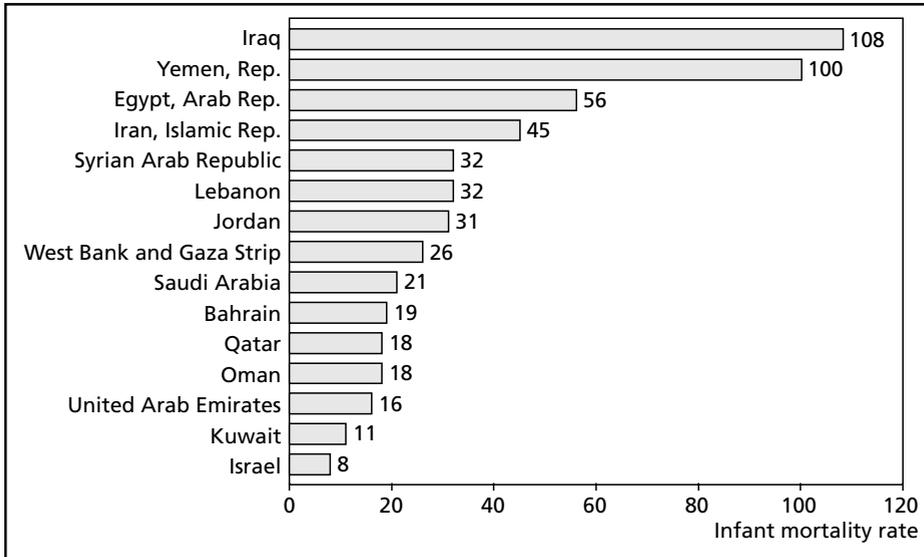Figure 6.2 Age at death, deaths during the 10 years before the survey

Figure 6.3 Infant mortality in the Middle East 1995

Country	Infant mortality rate
Iraq	108
Yemen, Rep.	100
Egypt, Arab Rep.	56
Iran, Islamic Rep.	45
Syrian Arab Republic	32
Lebanon	32
Jordan	31
West Bank and Gaza Strip	26
Saudi Arabia	21
Bahrain	19
Qatar	18
Oman	18
United Arab Emirates	16
Kuwait	11
Israel	8

Source: World Bank 1997

mortality level than Gaza (infant mortality is 26 compared to 30 in Gaza; and child mortality is 31 compared to 37 in Gaza).

Neonatal mortality (19 per thousand births for males and 13 per thousand births for females) corresponds roughly to the infant mortality, although the female one may be considered slightly low. This may be because of omission of early female deaths; if this is the case, the apparent improvement of female mortality, relative to that of males, may be an artefact of the omissions rather than a real trend. However, the observed levels of infant and child mortality are quite consistent with the West pattern of the Coale and Demeny life tables. They are also, as will be discussed later, broadly consistent with the adult mortality pattern.

The general level of infant and child mortality in the West Bank and Gaza Strip is quite low compared to developing countries, but high compared to Israel and to many neighbouring Arab countries. Figure 6.3 compares the level to other countries in the region.

Infant mortality associated with short birth intervals, type of marriage and education

The bivariate associations presented in Table 6.1 have two features that are fairly constant across all the associations. First, the mortality of the group with highest mortality is rarely larger than twice that of the lowest mortality group, and more often only about 30 percent higher. The glaring exception is in the difference in

mortality between twins and not twins, where the children of twin births have a $_5q_0$ (child mortality under 5 year) that is approximately four times that of non twins. However, twins make up only about 1.3 percent of the births so their high mortality does not contribute much to the overall level.

A second feature is that the differentials shown in Table 6.1 are reduced over time for many sub-groups. This is true in both relative and absolute terms. In one case, that of sex, the direction of the differential changed over time. While in 1980–84 boys had lower mortality than girls, the girls in 1990–94 were slightly better off (Table 1:H). Similarly, whereas refugees appeared to have higher mortality in the eighties, they have now caught up with the rest of the population. Refugee camps, it is true, appear to have higher mortality, but they share that characteristic with villages in contrast to towns and cities. The regional differences that existed previously have more or less disappeared.

The variable indicating whether or not the household had a 'sink with piped water' at the time of the survey appears to detect differences in mortality better for births that occurred before 1991 than after. This is surprising, since one can assume that the measurement error on the variable will increase the farther back in time one goes. It may indicate that those who do not currently have piped water are among the worst off, and that they have been so for some time. Similarly the index of household goods (see, Chapter 8), does not show any clear relationship to mortality. This may reflect the crudeness of the measure rather than reality.

Consanguineous marriages (i.e. marriages between cousins and between members of the same clan — *hamula*) show a clear bivariate association with mortality with differences in $_5q_0$ of 27.9 per 1000 in 1980–84, 19.9 per 1000 in 1985–89 and 17.3 per 1000 in 1990–94. Thus the difference diminishes with time. Between the first period and the second period (1980–84 to 1985–89) the reduction was approximately proportional to the overall reduction in $_5q_0$. Between the second and the last period (1990–94) the reduction was slightly less than if it had been in proportion to the overall reduction in mortality. Since around 30 percent of the marriages (and the births) are to cousins, and around 20 percent to members of the same *hamula,* the impact of consanguineous marriages on the overall mortality level is appreciable. They account, in fact, for an added infant mortality of nearly 20 percent and a similar proportion for the mortality under five years of age.

Not surprisingly, birth intervals show up as a strong determinant in the bivariate associations, with children born after a short birth interval having higher mortality. Again, there is a gradual reduction of the difference with time. Since a large proportion of the births are associated with short birth intervals (see, Chapter 4), the birth intervals are a major determinant of infant mortality in the West Bank and Gaza Strip.

Decline in infant mortality has levelled off

Figure 6.4 shows the overall trends in infant and child mortality by region in more detail. There is considerable random variation in the graphs. Nevertheless, it appears that both in the West Bank and the Gaza Strip there is a continuous decline in infant mortality from 1980 to approximately 1988, and from that time the mortality rates start to fluctuate around a stable value. From 1980 to 1985 the infant mortality decreased by approximately 20 per 1000, and the next 3 years saw a reduction of an additional 10. It is difficult to discern a trend after 1988. A similar picture can be seen in the case of mortality by sex, where it is particularly striking in the case of females.

Educational differentials fluctuate over time (Figure 6.5) with no clear cut pattern.

The stagnation of the decline has been more marked among the less well off, but this is a hypothesis that is difficult to test with the present data set. Current education is a good proxy for education throughout the life history of the women because most Palestinian women have completed their education by the time they

Figure 6.4 Infant mortality in West Bank and Gaza Strip
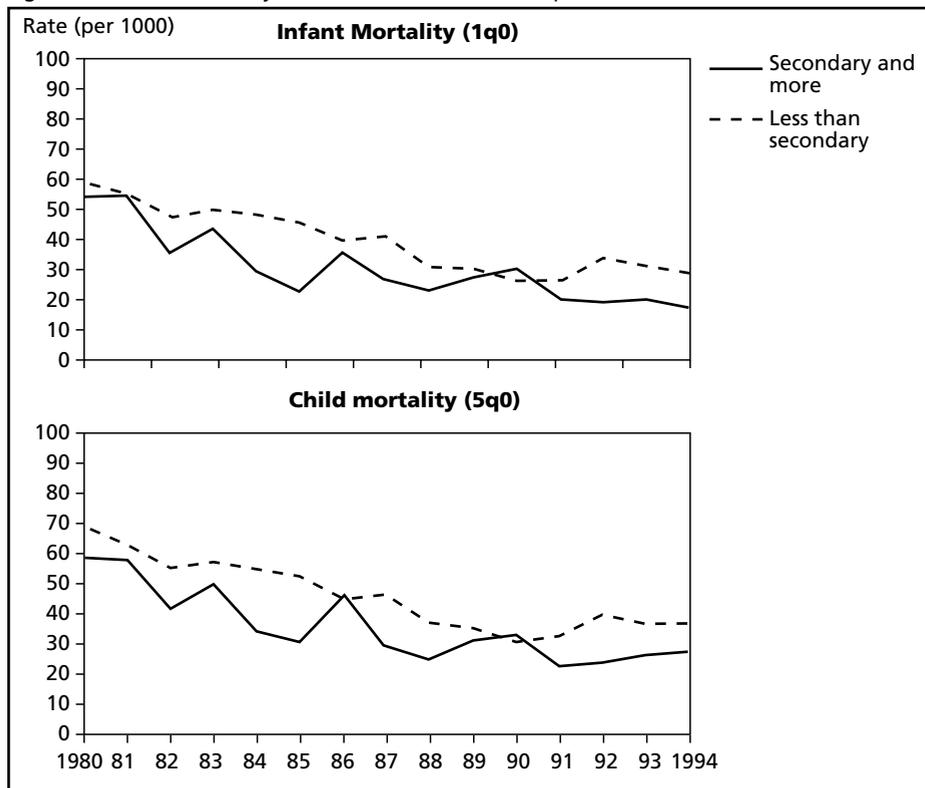
have their first child. One should note that overall the importance of education as a determinant of mortality is gradually decreasing because an increasing proportion of mothers have secondary education.

It is difficult to compare the DSOPT results with other available data from the West Bank and Gaza Strip, because the other time series that exist are based on incomplete registration of births and deaths. Table 6.2 shows the registered infant mortality rates for the West Bank and Gaza for selected years. Recent registration data are currently not available for the West Bank.

Table 6.2 West Bank and Gaza Infant mortality rates 1970–1995 based on registered deaths. Rates per 1000. Source: 1970–90: SIMH 1991:25, 1991–95: PNAMH 1996:17.

	70	75	80	85	90	91	92	93	94	95
West Bank	-	38.1	28.3	25.1	22.0					
Gaza Strip	86.0	69.3	43.0	33.4	26.1	27.8	31.7	28.7	24.7	25.0

Figure 6.5 Infant and Child mortality by education, West Bank and Gaza 1980-94
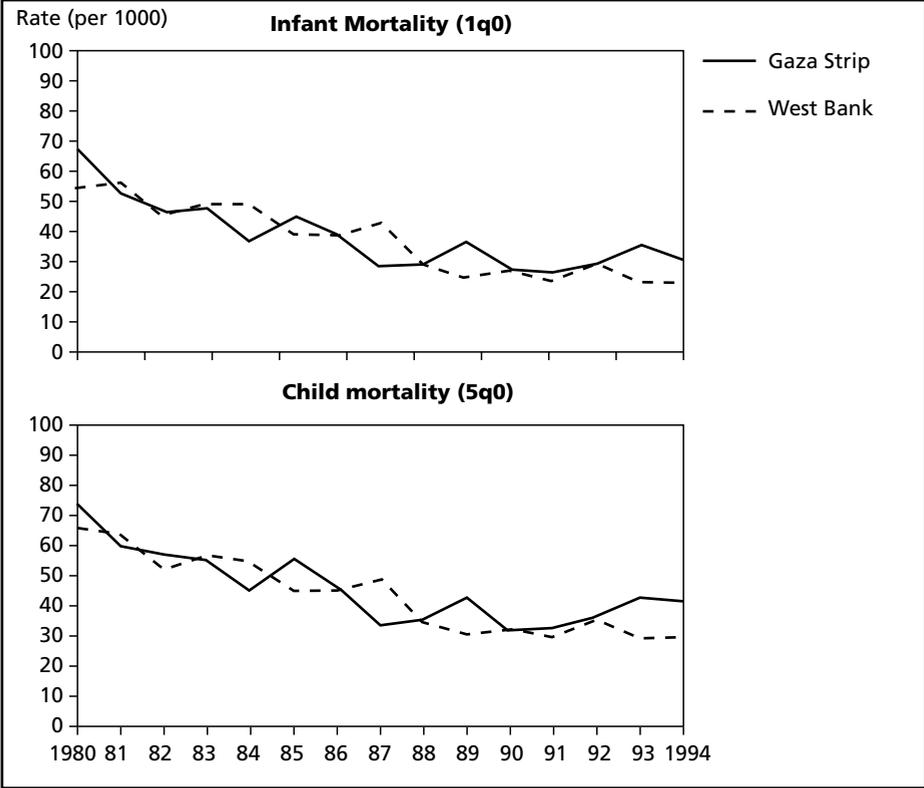
The data from the Gaza Strip reinforces the evidence from the Demographic Survey data that the decline in mortality rates has stopped. Since 1990 there has been no discernible downward trend in the reported rates.

Why has the mortality decline levelled off? One possibility is that the mortality is now so low that it would require huge investments in the health sector to bring it down further. Another possibility is grounded in the observation that the stagnation of the mortality decline occurred at about the same time as the start of the Palestinian uprising, the *Intifada*, and the subsequent social turmoil as well as shocks to the Palestinian economy in the wake of the Gulf War and the closures of the borders between the West Bank, the Gaza Strip and Israel.

The two explanations are to some extent related because both operate partly through reduction in economic performance. The Intifada led to a substantial number of workdays lost due to strikes and curfews with a corresponding loss in income. From 1987 to 1993, the household wage income in West Bank and Gaza was reduced by about 50 percent, giving rise to an economy that is progressively informal in character (Pedersen and Hooper 1998). After the Gulf war, Palestinians suffered a large reduction in remittances from abroad, which was only partly compensated for by the return of Gulf workers, bringing their assets with them. The support from Arab countries to the West Bank and Gaza Strip was substantially reduced after the Gulf war, and UNRWA has seen a gradual reduction in its budget relative to the rapidly increasing population it has to serve. On top of this comes the population growth that places increasing burdens on, for example, mother and child health facilities. The growth increased in the early 1990s because large net emigration was turned into immigration after the Gulf war and after the Declaration of Principles.

6.2 Adult mortality

Adult mortality can be estimated from the data using orphan- and widowhood methods and also from reports on deaths in the household during the preceding year or two. Results based on the latter method are not presented here, as the data quality was inadequate for the estimation, the major problem being substantial overstatement of the age of the deceased. This is a common problem associated with the method, and not particularly surprising.

Orphanhood methods estimate adult mortality by modelling the survivorship of mothers and fathers in relation to the children, and widowhood methods by modelling the survival of spouses. The basic procedure is similar in the two cases. First, the conditional survivorship is estimated given that a person has reached a given

age, and then this conditional survivorship is related to a model life table. Finally, the results can be combined with the infant mortality data in order to arrive at an estimate of life expectancy that takes account of infant, child and adult mortality.

Here, the data on the survival of parents are the more useful of the two sources. Because of the fairly high life expectancy, there are few recorded cases of dead spouses and therefore the variances of the estimates are too great to contribute much more than a general reinforcement of the results found by the orphanhood data. Another consideration as regards the survival of spouses' data is that survival status of migrant ex-spouses may not be known.

The maternal orphanhood estimates have been calculated using both the Brass method and the Hill and Trussel regression method. The paternal orphanhood estimates have been calculated by the Brass method (the regression method is not available in that case)[2]. The Brass method is known to perform better, or as well as the regression method, for estimates derived from the answers of respondents aged 30–34 years or less, while the regression method performs better than the Brass one for older respondents (UN 1983:101).

Figure 6.6 Life expectancies consistent with adult mortality estimates derived from orphanhood methods
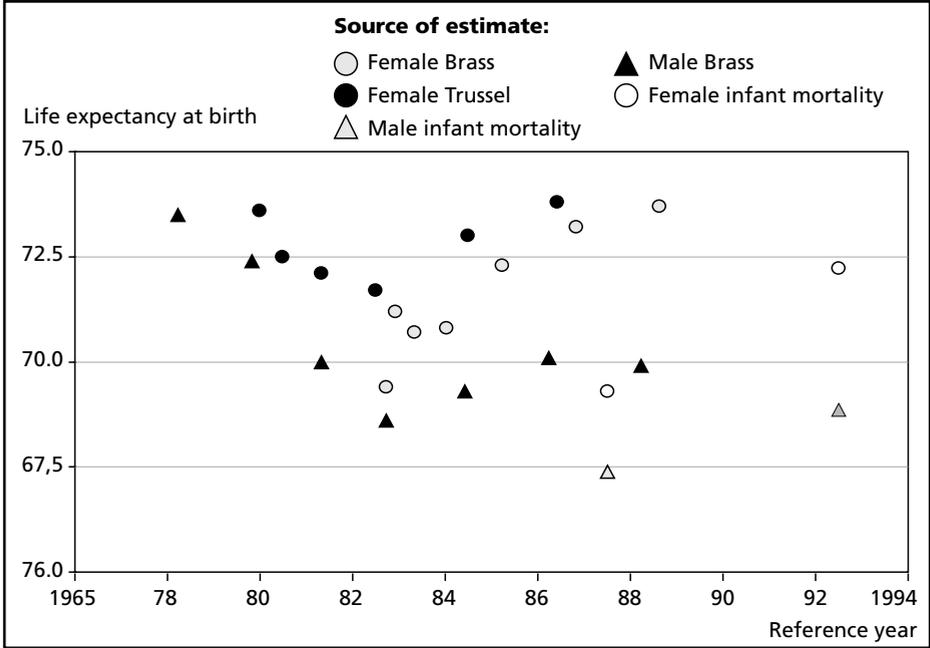
[2] MORTPAK-LITE (UN 1990) was used for the regression model, while the Brass model was calculated as described in UN 1983.

The results shown in Figure 6.7 indicate that for both sexes adult mortality was increasing until about the early 1980s and then decreased until it reached a level corresponding to a life expectancy of around 73–74 for women and 70 for men. The life expectancies have been calculated by finding the Coale-Demeney West life tables that are consistent with the survival probabilities.

While the decrease in mortality in the 1980–88 period is likely, the previous increase is probably a result of either progressively poor reporting as the respondents are increasingly older, or of shifts in the pattern of childbearing. The estimates depend on the mean age of childbearing because that defines the average age difference between the respondents and their parents.

For the more recent (and probably more reliable) estimates, the two methods are generally in agreement. The widowhood data (not shown) indicate higher female life expectancies, and slightly lower male, so that the difference between the two sexes is larger.

Figure 6.6 also shows estimates of life expectancy consistent with the directly estimated infant mortality data. Infant mortality for 5-year periods has been used. The infant mortality data indicate a somewhat lower life expectancy for both men and women.

Due to the different time references and the inherent variability of the various estimates due to sampling, it is somewhat arbitrary exactly how the estimates should be combined to form one estimate of male and female life expectancy. From a purely graphical perspective based on Figure 6.6, taking both adult and infant mortality into account, it appears that an estimate of male life expectancy at birth of about 69 years, and a female of 73 years, is reasonable for the West Bank and Gaza as a whole. While it is in principle possible to calculate the measures separately for the two areas, the slight differences between the two regions and the uncertainty associated with the estimates make it scarcely worthwhile.

6.3 Maternal mortality

One of the major changes in mortality patterns that occurs with improved health care is a decline in maternal mortality. While women in developing societies have a considerable risk of dying from causes related to child bearing, the chance that a woman from a developed country will do so is very close to zero. Maternal mortality is closely related to fertility. Obviously, the more children a woman has, the more often she is exposed to risk of dying from causes related to pregnancy and birth. It is also closely related to circumstances around the pregnancy and delivery, in particular the presence of trained personnel during delivery. The two factors tend to

go together — low fertility populations usually have a developed health care system that can provide trained assistants during birth. The West Bank and Gaza Strip represent an exception in that respect. Fertility is very high, but availability of trained birth attendants is quite good.

Maternal mortality is difficult to measure. As is the case with all mortality, it may be difficult to decide the precise cause of death. Also, when a death is registered or reported, the immediate cause of death may be the one singled out, rather than the context of pregnancy or childbirth. Moreover, maternal deaths are, fortunately, rather rare events even in high mortality populations. Although the life-time risk of dying from maternal causes may be high, even comparatively high maternal mortality risks do not translate into mortality risks per child birth of much more than 2 percent (or 2000 per 100 000 births to use the conventional unit). The low rates mean that sample sizes have to be large in order to provide good estimates of maternal mortality rates.

Since the late 1980s, several methods have been developed to measure maternal mortality. The most popular of these, the "sisterhood" method, is the one employed here (Graham et al. 1989). The method is based on the premise that the mortality experience of a person's sisters can be used to measure maternal mortality. Thus, in our case, women are asked about their sisters aged 15 and above, whether each sister is still alive and if not if she died from maternal causes. Maternal causes are defined here as all deaths during pregnancy or birth or up to 40 days after delivery. Thus, even if a woman died in a car accident when she was pregnant she will be counted as a maternal death. The upward bias resulting from this is usually considered much less than the general downward bias from omissions. In the specific case of the West Bank and Gaza, it must also be considered that the sisterhood method is somewhat imprecise geographically in that sisters are counted irrespective of their current residence or their residence at time of death. Accordingly, maternal deaths that occurred to women in Jordan will be included in the estimate, if those women have a sister in the West Bank or Gaza. Since maternal mortality in Jordan appears to be somewhat higher than in the West Bank and Gaza, this will bias the estimate the slightly upward. Indeed, maternal deaths to women in the Palestinian Diaspora in most Middle Eastern countries will generally bias the estimate upward. The only exception is the influence of Bahrain, United Arab Emirates and Israel, since those countries have lower maternal mortality than the West Bank and Gaza Strip (although nothing is known about the situation of Palestinian women in these countries). However, the influence of Jordan is likely to be the

greatest, as more relatives reside there than in any other place.[3] Even so, we may safely assume that the majority, probably more than 90 percent, of the sisters that the question refers to resided in the West Bank or Gaza.

The overall maternal mortality ratio is 74 per 100,000 births. However, the estimate has a wide 95 percent confidence interval, at ±18. The estimate of the confidence interval was computed by using the 'balanced repeated replication' method. It is thus corrected for a priori correlations in the data, such as those deriving from the clustered nature of the sample and those deriving from the fact that a group of sisters may have similar mortality experience. The interested reader should consult the appendix on sampling.

Figure 6.7 Maternal mortality ratios in the Middle East. Source: Stanton et al.(1996)
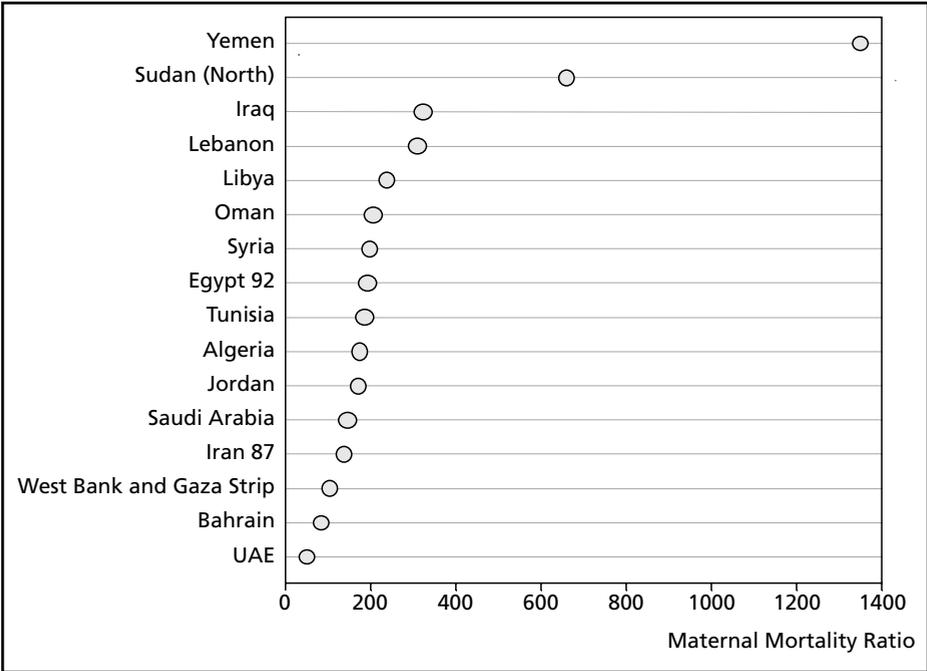
[3] Two sources of data can be used to estimate the magnitude of this effect: the percentage of women aged 15-54 born in Jordan (2.1 percent) and the number of sisters of household heads reported to be living in Jordan — which is 4,665 sisters. The sisters of household heads make up 5.8 percent of the 79,252 sisters that were reported as having reached age 15. Both of the estimates are biased estimates of the number of sisters of all women, but they both indicate that the number of sisters living in Jordan is fairly low.

Maternal Mortality is low compared to other countries in the region

As can be seen from Figure 6.7 the maternal mortality ratio is considerably lower than that of other countries in the region. One should note, however, that most of the estimates are derived from methods that are even more indirect than the sisterhood method, namely that of Stanton et al. (1996) which estimates the MMR by a regression model with characteristics of the countries concerned as the independent variables. Also, in the cases where sisterhood estimates of maternal mortality ARE available (Iran and Egypt), Stanton et al. (1996) have accepted the sisterhood estimate of proportion dead from maternal causes, but not the MMR.

One reason for the comparatively low maternal mortality in this population is probably the small distances in the West Bank and Gaza. Women who develop complications during pregnancy (or even during childbirth if it takes place outside hospital) do not have very far to travel for help compared to the case in many rural areas elsewhere in the region.

Large differentials in maternal mortality within the West Bank and Gaza were not detectable in the survey. As can be seen from Table 6.3, there were some differences, but none of them are statistically significant. In general, however, the sisterhood method is poorly suited to detect differences in maternal mortality. That is because to make the estimate one has to assume that the interviewed women and their sisters have the same characteristics. In the case of refugee status, this is an acceptable assumption (since succession of refugee status is patrilineal and first generation refugees are too old to be included), but in the case of, for instance, residential status (town/camp/village) migration of sisters clearly confounds the relationship.

Table 6.3 Maternal mortality ratios for various sub groups

	Sister units of exposure	Maternal mortality ratio (per 100,000)	Standard error of Maternal Mortality Ratio
All	29,231	74	9
Refugees	11,513	77	9
Non refugees	17,113	75	9
Towns	11,997	65	8
Camps	5,295	96	10
Villages	11,957	73	9

6.4 Conclusions

The overall picture of the mortality conditions in the West Bank and Gaza Strip is optimistic. The general level of mortality is similar to that of Western European countries in the early sixties or slightly better than Eastern European countries today. For a regional context, Figure 6.8 shows comparative figures for male and female life expectancy for countries in the Middle East. The West Bank and Gaza Strip is in the middle of the range.

However, a worrying sign is that the downward trend in infant and child mortality rates appears to have stopped at the end of the 1980s and that the mortality levels have now been fairly stable with little improvement for the last ten years. Given that there has been a steady decline in economic performance since the late eighties, it is reasonable to suppose that one can expect an increase in mortality.

The regional differences are fairly small and are difficult to give substantive interpretations. A former female disadvantage in infant and child mortality has been reversed. Women have higher life expectancy than men, and the difference might be expected to increase. This is probably partly due to the very different smoking patterns for the two genders: while about half of the men currently smoke, only 2 per cent of women do so. Men are also much more exposed to accidental or violent death than are women; for example in conjunction with the conflicts with Israel.

Figure 6.8 Life expectancy for men and women in the Middle East 1995. Left end of bar is male life expectancy, right end female. The length of the bar shows the difference
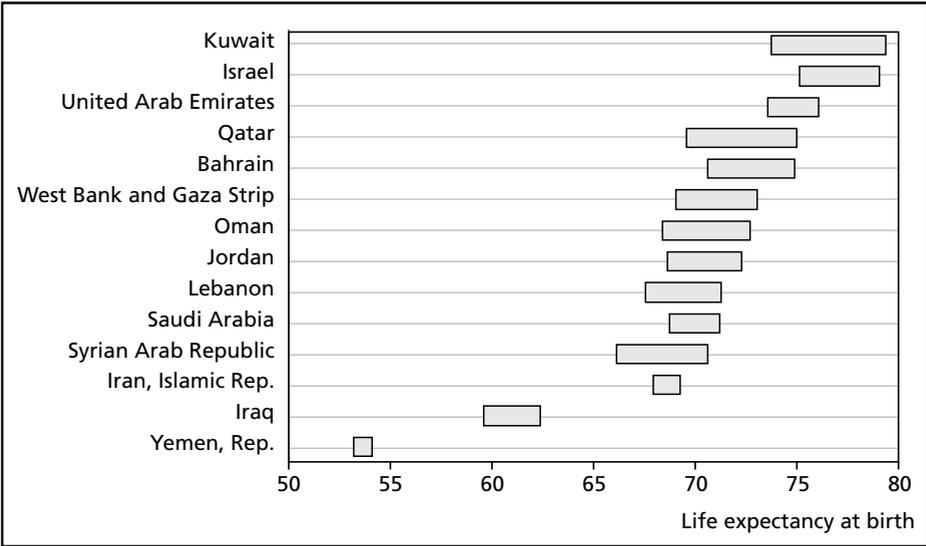
Source: World Bank 1997

Some specific factors are of particular interest when it comes to the determinants of infant and child mortality. Consanguineous marriages currently increase infant and child mortality by about 20 percent and short birth intervals have a similar effect. The practice of consanguineous marriages is deeply entrenched in the Palestinian population, and as shown in the chapter on marriage, there has scarcely been any change in their frequency recently. Whether or not the added burden of disease and mortality is worth the perceived benefits of consanguineous marriage must be up to the Palestinians themselves to decide.

Table 6.1 Associations between selected variables and infant and child mortality

Characteristic	1980–84			1985–89			1990–94		
	Neo-natal	1q0	5q0	Neo-natal	1q0	5q0	Neo-natal	1q0	5q0
A: Highest education completed by mother									
None or incomplete elementary	28.8	56.7	64	26.3	46	52	15	28.9	36.7
Elementary	27.4	53.3	62.6	22.9	36.2	41.7	18.2	31.2	34.5
Preparatory	24	39	44.7	17.8	26.9	32.8	18.2	28.3	35.7
Secondary or more	27.3	43.1	48.1	17.6	27.1	32.1	13.6	21.2	27
B: Education of mother's mother									
No education	27.2	51.4	58.9	22.4	36.9	43.4	17	27.6	34.2
1 to 6 years	36.4	48.5	53.6	16.8	27.1	28.3	11.4	24	28
7 and more years	22.1	32.1	32.1	22.9	29	32.2	22.1	31	36
Not known	17	48.7	58.3	19.8	30.8	33.3	10	24.9	28
C: Education of mother's father									
No education	25.6	49.4	57.4	22.2	37.3	43.4	17.1	29.6	36.7
1 to 6 years	33.4	54.8	60.2	21.2	32	37.2	16.4	26.5	31.7
7 and more years	32.5	44.8	58	17.2	27.7	32.3	15.2	24.9	30.7
Not known	22.4	51.2	56.9	23.5	38.3	43.6	14.9	24.3	27.7
D: Type of marriage									
Cousin	34.6	61.5	72.7	29.6	45.5	53.6	19.8	37	44.1
Hamulah	33	58.2	65.1	19.7	32.8	38.6	15.4	26.4	33.7
No relation or unknown	19.9	39.9	44.8	17.5	29.7	33.7	14.6	22	26.8
E: Refugee status									
Refugees, including nonregistered	30.9	53.1	60.3	21	34.2	41.3	15.9	27.3	33.7
Non-refugees	24.9	49	56.4	22.1	35.8	40.7	16.6	27.2	32.9
F: Age of mother									
Mother 14–20 years	38.3	62.3	73.4	27	42.7	46.9	17.8	30.2	35.6
Mother 21,30> years	23.3	47.2	53.5	19.8	32.3	37.7	16.4	27	32.4
[30,> years	27.1	48.1	54.8	21.6	35.4	42.4	14.8	25.4	32.7
G: Preceding birth interval — twins included									
First born	36.8	54.2	62.2	20.7	32.2	37.3	17.5	28.3	34.6
<= 17 mths	40.2	77.2	85.7	37.2	58.8	66.6	23.7	35.6	41
18–23 mths	16.5	36.6	42	16.9	26	30.2	13.5	23.2	30.3
24–35 mths	15.4	33.5	41.7	11.2	20	26.7	10.1	21.1	26.5
36–47 mths	12.1	22.3	27.4	10.9	21	24.5	10.9	19.7	24.4
48 mths and more	13.9	23.4	27.3	12	21.1	21.9	16.6	23.4	28.5

Table 6.1 (continued) Associations between selected variables and infant and child mortality

Characteristic	1980–84			1985–89			1990–94		
	Neo-natal	1q0	5q0	Neo-natal	1q0	5q0	Neo-natal	1q0	5q0
H: Sex									
Male	26.4	48.5	54.6	24.3	36	41.2	19.1	30.3	36.7
Female	28.3	52.9	61.5	18.8	34.3	40.5	13.2	24	29.3
I:Twin status									
Not twins	25.6	48.4	55.6	20.8	33.5	39.2	15.9	26.3	32.2
Twins	171.2	225.9	236.5	88.6	157.4	164.4	47.2	96.5	106.6
J: Index of household goods									
Low							17.9	32.1	38.9
Middle							17.4	26.4	32.2
High							13.9	23.7	29.1
K:Region									
West Bank	26.6	51.1	58.3	21.9	35	40.1	15.2	25.5	31
Gaza	28.7	49.7	57.2	21.2	35.5	42.3	18	30.2	37
L:Region detailed									
WB-North	27.9	49.7	58.8	25.5	37.6	43.1	16.5	24.3	32.1
WB-central	26.7	49.2	55.4	16.9	27.4	32.1	16	26.4	29.5
Hebron	24.6	55.9	61.7	23.5	41.5	46.4	12.3	26.1	31.2
Northern Gaza	28	46.2	50.6	16.9	30.1	35.6	16.9	28.2	34.3
Southern Gaza	29.5	53.5	64.2	25.9	41.4	49.6	19.3	32.3	39.8
M: Place of residence									
Town/City	25.7	41.7	47.4	17.1	27.9	33.3	13.7	23.8	29.9
Refugee camp	34.4	57	65.4	21.1	32.1	39.3	17.9	28.9	35.1
Village	25.9	55.9	64	26	42.9	48.2	17.7	29.5	35.2
N: Piped water in household									
Sink with piped water	25.3	46.4	53.6	21	32.9	38.3	16.2	26.1	32.1
No sink with piped water	38.3	72.8	81.1	24.8	46.3	53.5	16.6	32.3	38.5

Table 6.4 Sisterhood estimation of Maternal mortality for the West Bank and Gaza. Standard errors have been estimated by Balanced Repeated replication

| Age group of respondents	Number of respondents	Sisters aged 15 and above	Sister units of risk exposure	Number of maternal deaths	Lifetime risk of maternal death	Standard error of risk of maternal death	Maternal mortality ratio (per 100,000)	Standard error of maternal mortality ratio	Proportion dead from maternal causes	Standard error of proportion dead from maternal causes
15–19	5950	18728	2004	12	.006	.0020	93	31	.193	.059
20–24	4837	15227	3137	17	.005	.0016	82	25	.141	.039
25–29	3797	12387	4249	16	.004	.0008	59	12	.100	.021
30–34	3243	10734	5399	23	.004	.0009	66	13	.159	.028
35–39	2493	8211	5452	26	.005	.0011	74	17	.162	.037
40–44	1929	5927	4753	24	.005	.0010	77	15	.126	.024
45–49	1666	4708	4238	23	.005	.0010	83	16	.091	.017
50–54	1263	3330	3190	29	.009	.0017	139	27	.101	.018
Total 15–49	.	.	29231	140	.005	.0048	74	9	.129	.012

Chapter 7 Migration

Sara Randall

Migration, whether forced or voluntary, into and out from the West Bank and Gaza Strip is one of the most important aspects determining both population structure and economy of the two areas. Figure 7.1 shows the net migration flows from 1968 and onwards. As can be seen, the net out-migration was for many years as high as two percent, shaving away a substantial part of the population growth. Moreover, the net migration rates hide a large amount of in and out migration. In the mid 1980s, migration became much more balanced. The Gulf war led to a return of many Gulf migrants even though many of the Palestinians who were forced to leave Kuwait and other countries went to Jordan rather than the West Bank and Gaza Strip. After 1992, the net migration has probably been positive into the West Bank and Gaza Strip. Recent data are, however, not available.

There are two sources of data on migration in the DS, each of which gives a rather different perspective on migration but neither of which allows for much clarification on net out-migration. For every individual recorded in the survey, questions

Figure 7.1 Migration from the West Bank and Gaza Strip
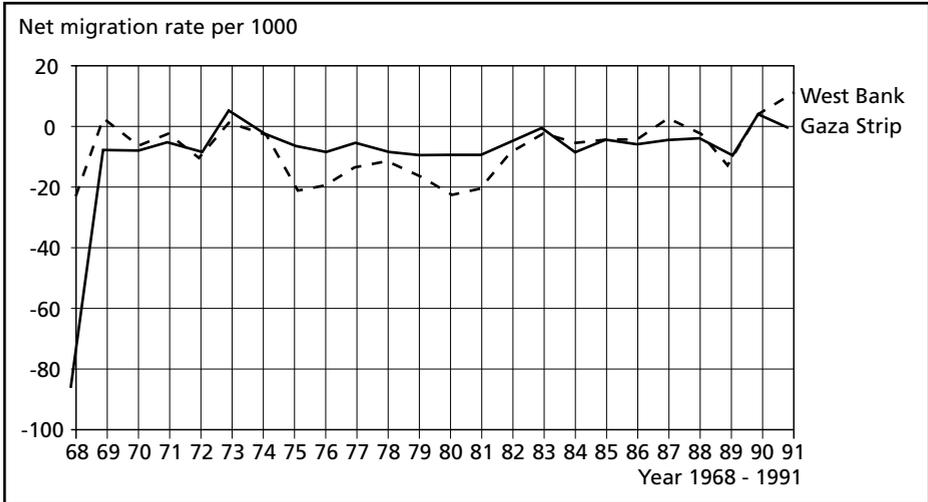
Source: ICBS 1993: table 27.1

were asked on their place of birth and their place of residence in 1987.[1] These data allow us to look at lifetime migration and recent movements. Obviously they will underestimate movements because circular and temporary migration may be missed as will more than one movement since 1987. They do however permit an examination of the characteristics of recent and lifetime migrants and identification of areas of West Bank and Gaza Strip where both in and out-migration are more frequent.

The other source of data on migrants is a series of questions, which were asked of the head of household only. These recorded any close relatives living outside West Bank and Gaza Strip at the time of survey. Close relatives were defined as "parents, siblings, spouses and children".[2] The information available on these relatives abroad is their age and sex and whether they currently hold, or have ever held an Israeli ID card. This allow us to identify those who are probably out-migrants from the Palestinian territories (those who hold or who have held an Israeli ID card) and those who are relatives who live abroad and have probably always lived abroad and thus should not be considered as Palestinian out-migrants.

7.1 Relatives abroad

These data, although informative, cannot be considered to represent fully either the characteristics or the destinations of the Palestinian Diaspora. They are the close relatives of household heads. Because household heads tend to be older men, their relatives abroad are also likely to have a relatively old age distribution; they do not report on grandchildren, nephews and nieces, and their own young children are unlikely to have left home without their parents. Even siblings are probably older than the actual distribution of international out-migrants. On the other hand they do give an indication of the scale of world-wide networks of household heads and the degree to which different subgroups of the population may have contacts out-

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[1] Unfortunately, there is no specific reference date in 1987 – just a general reference to that year.

[2] An examination of the details of these data suggests that the relationship codes are not very accurate, especially for parents and children. About 25 percent relatives abroad recorded as "parent" of the household head, were in fact younger or less than 15 years older than the household head. About 1.8 percent those recorded as child were in fact older. Some of this probably came from enumerator confusion when asking about the relationship. People are more likely to specify a relationship from their perspective — i.e. "I am the parent of x" rather than the other way round "x is my child". There are also other inconsistencies suggesting that in some cases daughters in law (married to sons abroad) are registered as daughters, and their children as the household head's children. In the light of these findings no separate work has been done on the relationships.

side West Bank and Gaza Strip and potential remittances or other economic advantages.

More than half of household heads have close relatives abroad

West Bank household heads have more close relatives abroad (Table 7.1), especially refugee households, but the latter difference is not very large. The propensity of West Bank households to have relatives abroad is probably due to the fact that many West Bankers at the outset had relatives in Jordan, and that many relatives of West Bankers also fled to Jordan.

Table 7.1 Mean number of relatives of household head abroad, and percentage of household heads with relatives abroad

	West Bank		Gaza	
	Refugees	Non-refugees	Refugees	Non-Refugees
Mean number of relatives abroad	1.7	1.5	1.2	1.1
Percent with relatives abroad	66	59	56	47
N (household heads) weighted	1910	4175	1701	847

Apart from the closer links to Jordan, it is also easier for West Bankers to travel than for people from the Gaza Strip. West Bankers have been entitled to Jordanian passports since Jordan annexed the West Bank in 1950. Gazans in contrast, have to travel on Egyptian laissez-passer, which are not always accepted by other Arab states.

Countries of residence

Relatives abroad were recorded from a variety of countries including all the Arab states – non-Arab countries were recorded by continent (North America, Europe etc). From Figure 7.2 it is clear that the majority of overseas relatives live in Jordan, and although these are dominated by people who have never had an Israeli ID card, there are still more occupied territories' Palestinian out-migrants in Jordan than in any other country. The Gulf States, especially Saudi Arabia and UAE contain a substantial number of the relatives abroad, although even here a sizeable proportion are not Palestinian out-migrants, having never had an Israeli ID card. With the exception of Jordan, few relatives live in neighbouring countries (Syria, Lebanon, Iraq and Egypt) and those that do have in general never had an Israeli ID card and are therefore not out-migrants.

Figure 7.2 Relatives abroad by country of residence and possession of Israeli ID card
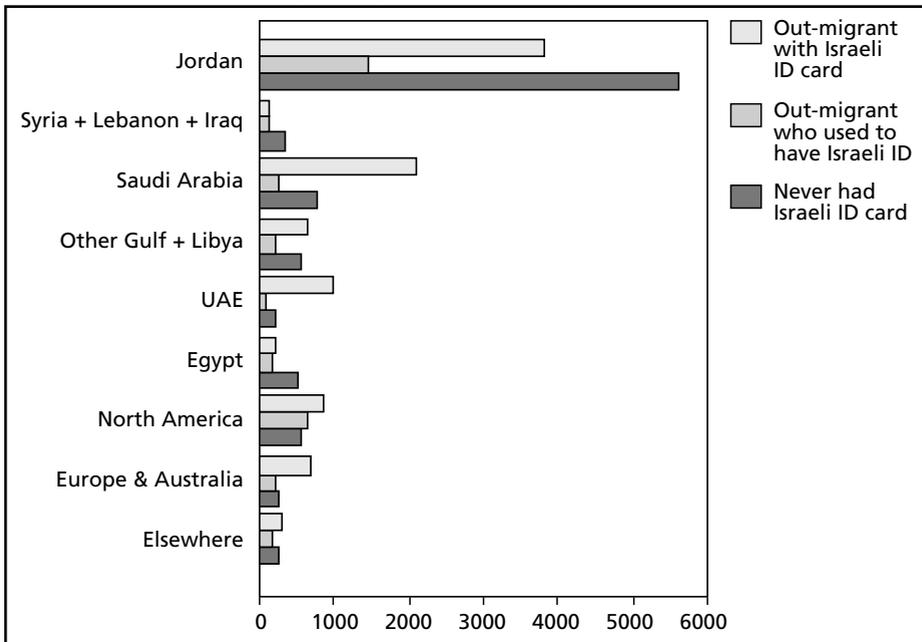

Age structure of relatives abroad

The place of residence of overseas relatives was grouped into 4 areas: local Arab (Jordan, Lebanon, Syria and Egypt); Gulf and Libya; Africa (all African countries except Egypt and Libya) and elsewhere (mainly US, Europe and Australia). The majority of relatives living "elsewhere" are out-migrants from the occupied territories (Figure 7.2) and their age distribution is much younger than those in neighbouring or Arab Gulf states (Figure 7.3), being dominated by men and women in their twenties and thirties. We have no data on occupation or motive for migration, but it seems likely that many of these migrants "elsewhere" are studying abroad. A comparison of gender specific age structures in the different regions indicates that the female distribution is consistently younger than the male one, lending credence to the idea that many of the women are accompanying their husbands.

Age-sex structure of relatives abroad according to Israeli ID status

Four categories of Palestinian relatives can be identified: Those who have never resided in the occupied territories, those who never had an Israeli ID card, those who used to have an Israeli ID card, but don't any more, and those with Israeli ID cards.

Figure 7.3 Age distribution of relatives abroad by region of residence, includes all recorded relatives abroad
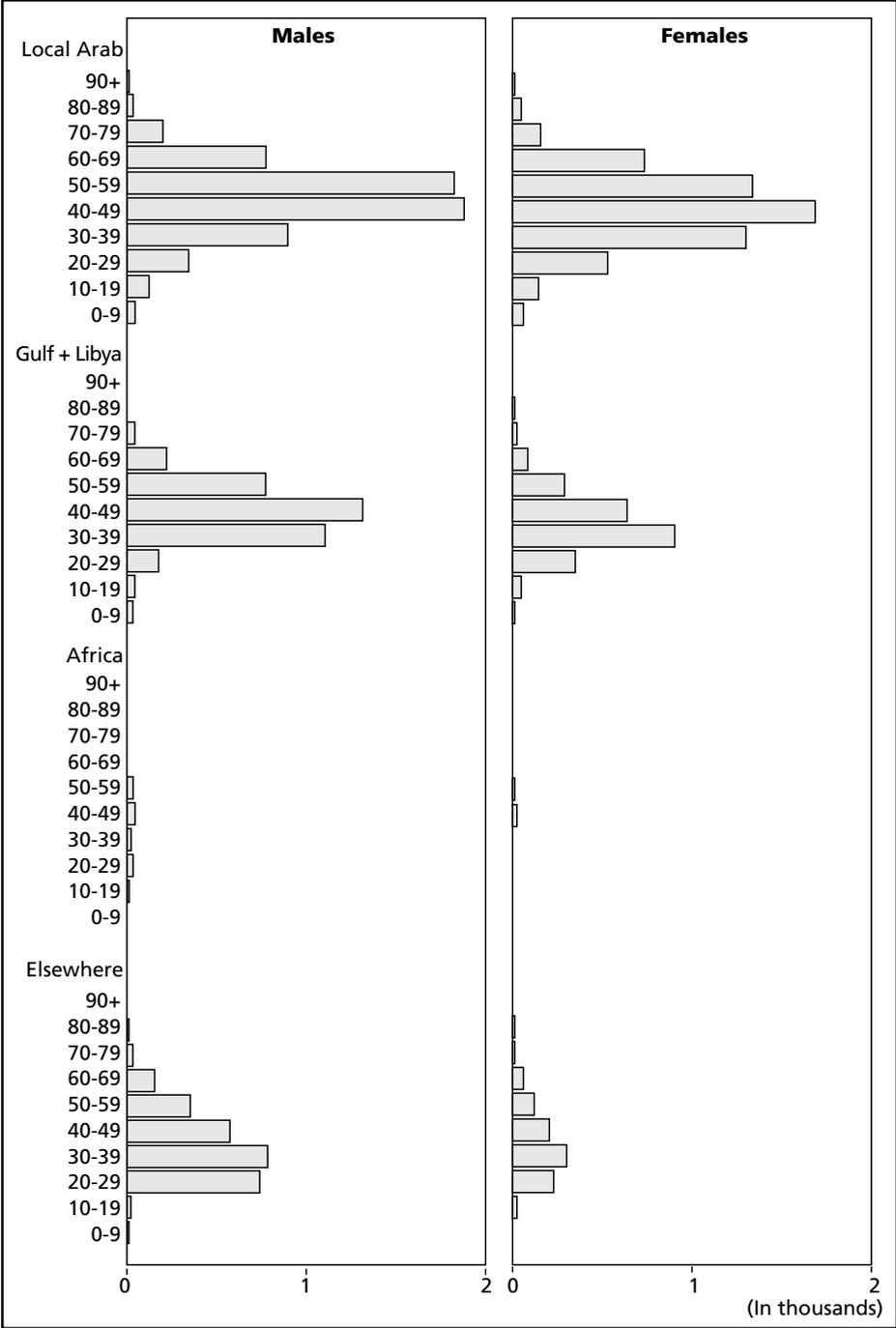
It is hardly surprising that those who have never had an ID card have a much older age distribution with few under 40 (Figure 7.4) – they are not classic migrants – in fact they are probably not migrants at all but refugees or relatives who have always have resided elsewhere. It is more surprising that this population is dominated by males; one would have expected the sexes to have been balanced and this may indicate underreporting of female relatives.

Those who used to have an Israeli ID but who have now lost it, may be permanent out-migrants who do not intend to return. Because the ID card has to be renewed yearly, staying outside for more than a year makes the migrant lose the possibility of permanent return, whether intended or not. Most of the migrants without ID-card are in Jordan with North America another important destination. Although there are many more men than women in this category (Figure 7.5), the middle aged dominates both sexes.

Those "with an Israeli ID card" are temporary out-migrants, abroad either for work or study, or those who wish to become permanent out-migrants. The majority of these are also in Jordan (see, Figure 7.2) but with a sizeable proportion in Saudi Arabia and other Gulf states. Those in Jordan may to some extent be people attending higher education there. This age distribution is much younger than that of the other two groups and is more typical of an active migrant population (Figure 7.6). With the exception of people in their 40s there are similar numbers of males and

Figure 7.4 Age-sex structure of relatives abroad. Those who never had Israeli ID card
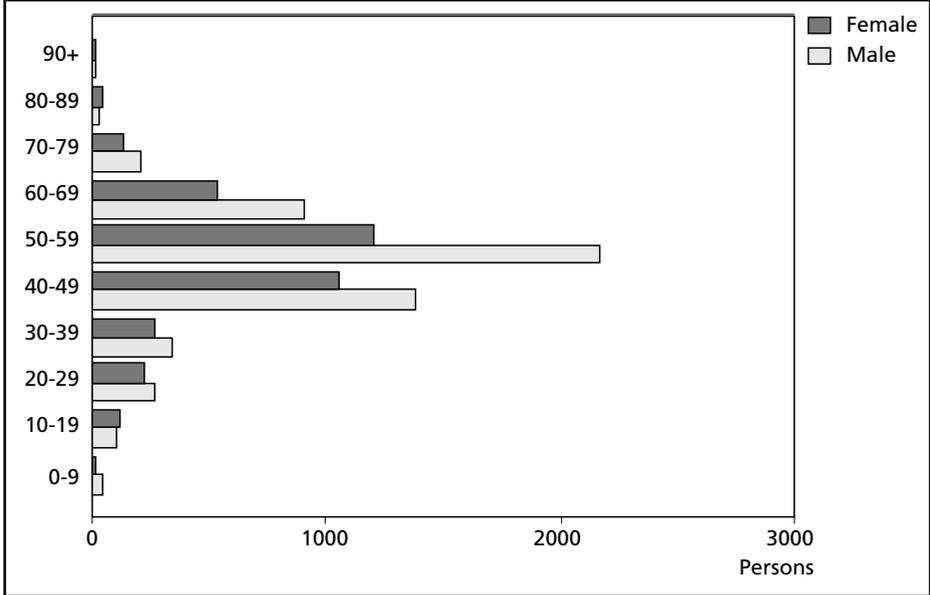
females – which is slightly unexpected given that both members of married couples should not have been reported (see footnote 2).

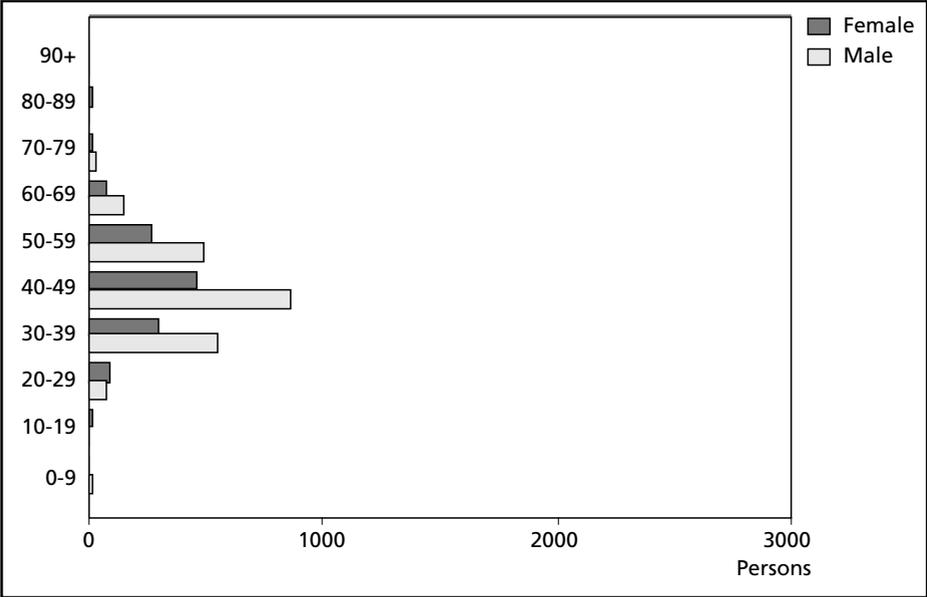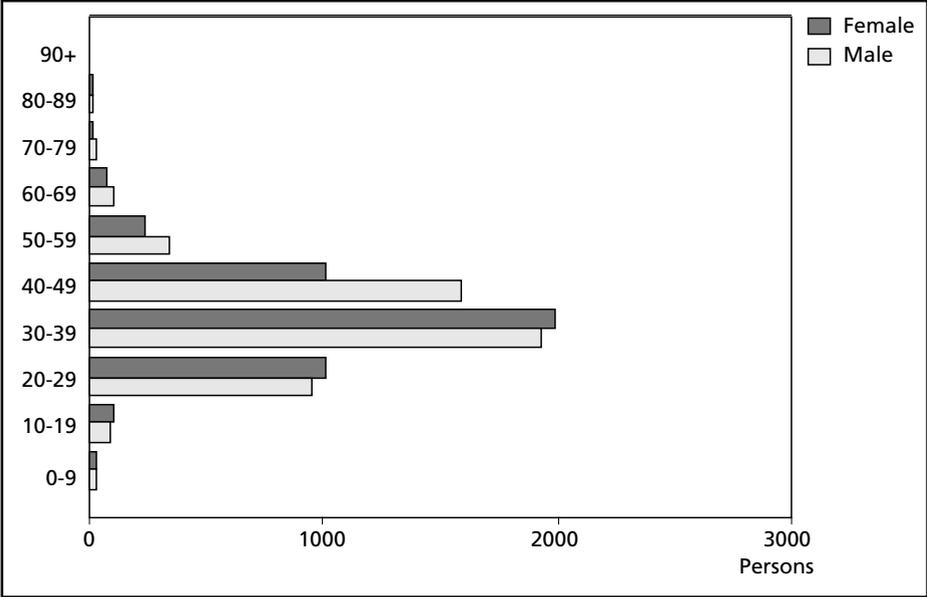Figure 7.5 Age-sex structure of relatives abroad. Those who used to have Israeli ID card

Figure 7.6 Age-sex structure of relatives abroad. Those with Israeli ID card

Gaza and West Bank kin connections are with different countries

The migrants' links with different destinations vary substantially according to where the household heads live. In the case of establishing links with people outside the West Bank and Gaza Strip, it is considered that all links to the household head are considered important, whether the person overseas is a migrant or has always lived there, and whether they are of working age or not.

Households in the Gaza Strip are much less likely than those in the West Bank to have relatives in local Arab countries, whereas they are much more likely to have relatives in the Gulf States (Table 7.2). Villagers are more likely to have relatives in other Arab countries and refugee camp dwellers in the Gulf, although this is probably largely a function of the fact that there are more villages in the West Bank, and more refugee camps in Gaza. Refugee status itself seems to have little bearing on international relationships. Whereas one might have thought that house ownership might be correlated with Gulf links because more money implies more chance to acquire a house, such links are not apparent; this is perhaps expected, given the very high level of house ownership. A similar observation also pertains to the ownership of household durable goods, which does not vary with relatives abroad.

Overall more households have links with local Arab countries than with the Gulf or elsewhere in the world. This is dominated by the links with Jordan, which are especially marked for households in the West Bank, and are a function of the history of the area and the general population movements and changes in administration since the 1940s.

Table 7.2 Percentage of households with close relative of household head in different regions by characteristics of household head and residence of relatives abroad

	Local Arab Countries	Gulf	Elsewhere	N (households)
West Bank	45.8	15.4	16.8	10694
Gaza Strip	21.5	35.0	11.3	4944
Town/city	35.3	24.0	18.4	6251
Refugee camp	36.5	29.0	9.0	2622
Village	42.3	15.8	14.4	6765
Refugee	39.7	16.1	13.8	6257
Non refugee	37.7	18.1	16.1	9379
House ownership				
Owned	38.4	21.1	14.7	12613
Rented	41.5	19.6	20.5	1356
UNRWA	41.1	28.2	10.2	550
No pay	34.7	23.0	15.9	1099
Total	38.5	21.7	15.2	

7.2 Lifetime migration

Data are available for all individuals on their place of birth. Political events, especially those, which have caused substantial movements of refugees, will clearly have a major influence on patterns of lifetime migration. This is thus examined for three different groups of people: those born in or before 1948, those born 1949–1967 and those born since 1967.

Most mobility is observed for the oldest group, born before 1948 (Table 7.3), but even here, with the exception of Jericho and Gaza, around 70 percent of the population still live in the region where they were born. For this cohort in all areas, the majority of people not born in their residential region were born in Israel, although Jericho has also received substantial numbers from elsewhere in the West Bank. There was been practically no life-time movement between the West Bank and Gaza. In Gaza, central Gaza has the highest percentage of refugees from Israel. Over 80 percent of those born before 1948 were born in Israel.

Patterns of lifetime movement for those born 1949–67 are very different (Table 7.4). The extent of movement is much lower for this cohort; in most regions between 80 and 90 percent people live in their birth region. Jericho, and to a lesser extent Jerusalem, have received more people from elsewhere, both from throughout the West Bank, and from abroad. Over 90 percent of the population in Gaza and Hebron was born in their region of residence and again there has been little flow of this cohort between Gaza and the West Bank.

Over 90 percent of those born since 1967 were born in the region where they now live (Table 7.4) Jericho has received most in-migrants, mainly from the Northern West Bank and Jerusalem. Five to ten percent of the population in each region

Table 7.3 People born 1948 or earlier % of each region by place of birth

	Jenin	Tulkarem	Nablus	Ramallah	Jerusalem	Jericho	Bethlehem	Hebron	Gaza	Israel	Abroad	Total
Jenin	**72**	1	1			0		0		25	2	100
Tulkarem	1	**76**	2	0					0	19	1	100
Nablus	3	2	**74**	0	1			0	0	18	2	100
Ramallah	0	0	0	**69**	2	0	0	1	0	24	2	100
Jerusalem	0	0	1	2	**69**	0	1	10	0	13	3	100
Jericho	1	1	4	3	5	**29**	1	6		46	4	100
Bethlehem	0	0	0	1	2	0	**78**	2		15	2	100
Hebron		0	0	0	1	0	0	**87**	0	9	1	100
Gaza North			0		0	0	0	0	**46**	51	3	100
Gaza Middle		0				0			12	86	2	100
Gaza South		0		0					38	60	3	100
Total	7	8	9	9	6	1	5	13	11	30	2	100

was born abroad, reflecting the fairly substantial external links outlined above, and the fact that there are almost as many women relatives abroad as men.

Thus, with the exception of the big wave of refugees in the 1940s, the Palestinian population who remained within the occupied territories has remained rather immobile over time. This is especially true of Gaza and Hebron. In the case of Gaza it is hardly surprising given their spatial separation from the rest of the occupied territories. Jericho is the one area, which has received a substantial number of in-migrants of different ages. Obviously these statistics only capture those who are current residents of the occupied territories, and say nothing about emigration.

Table 7.4 People born 1949–67 % each region by place of birth

	Jenin	Tulk-arem	Nab-lus	Ram-allah	Jerusal-em	Jericho	Bethle-hem	Heb-ron	Gaza	Israel	Abroad	Total
Jenin	91	2	1	0		0	0	0	0	2	3	100
Tulkarem	2	87	4	0	0	1	0	0	1	1	4	100
Nablus	3	2	88	0	0	1	0	0	1	1	3	100
Ramallah	1	1	2	84	3	1	0	1	1	1	6	100
Jerusalem	1	0	1	3	76	1	2	6	1	1	8	100
Jericho	3	2	6	3	5	68	1	6	1	1	4	100
Bethlehem	1		1	1	2	1	85	2	0	2	6	100
Hebron	0	0	0	1	2	0	1	93	0	0	2	100
Gaza North		0	0	0	0	0	0	0	95	1	3	100
Gaza Middle			0	0		0	0		96	2	2	100
Gaza South		0	0	0	0	0	0	0	95	2	3	100
Total	8	8	10	10	6	1	5	14	32	1	4	100

Table 7.5 People born after 1967 % each region by place of birth

	Jenin	Tulk-arem	Nab-lus	Ram-allah	Jerusal-em	Jericho	Bethle-hem	Heb-ron	Gaza	Israel	Abroad	Total
Jenin	**95**	0	0	0	0	0	0	0		0	4	100
Tulkarem	0	**93**	1	0		0	0	0	0	0	6	100
Nablus	1	0	**92**	0	0	0		0	0	0	6	100
Ramallah	0	0	0	**90**	1	0	0	0	0	0	8	100
Jerusalem	0	0	0	2	**91**	0	1	2	0	0	5	100
Jericho	1	0	2	1	3	**86**		1	0	0	5	100
Bethlehem			0	0	2	0	**93**	1	0	0	4	100
Hebron	0	0	0	0	1	0	0	**96**	0	0	2	100
Gaza North		0	0	0		0	0	0	**95**	0	4	100
Gaza Middle	0	0	0		0	0	0	0	96	0	4	100
Gaza South	0		0	0		0		0	93	0	6	100
Total	8	8	8	9	6	1	5	16	33	0	5	100

7.3 Movements since 1987

Movements since 1987 were classified as three types: local, which for Gaza residents was any movement within the Gaza Strip,[3] and for West Bank residents movements within their region; regional defined as between regions or between West Bank and Gaza; international defined as residing outside West Bank and Gaza Strip in 1987; non-migrant, someone whose place of residence was the same in 1987 as at the survey date.

Recent local and regional migration dominated by women of reproductive age

From Figures 7.7 a–d, both local and regional movements, since 1987, are dominated by women aged 15–35, particularly those aged 20–24. Although reasons for migration were not asked, this age-sex distribution suggests that the majority of these movements were because of marriage. This is confirmed by an examination of time since first marriage which shows that whereas only 25.5 percent non migrant women aged 15–44 had first married in the 8 years before the survey, 78 percent of the local and regional migrant women (15–44) had married in the preceding 8 years.

Returned international migrants (Figure 7.7d) show a rather different distribution, with similar numbers of males and females but with different age distributions. The bimodal age distribution for males reflects the fact that either children accompany parents and return when their parents return (those under 20) or they migrate for education or labour in their early 20s and return in their late 30s and 40s. Because these data are only available for return migrants they represent the ages at returning rather than the peak age groups of migration.

Differences between the characteristics of different types of migrants are clear from Figure 7.8. Returned international male migrants are more likely to be older adults compared to both internal migrants and the non-migrant population, although the non-migrant female population has the highest proportion of over 40s. For both sexes internal migrants are more likely to be young adults, but this preponderance of young adults is most marked for women internal migrants.

[3] Although current residence in the Gaza strip was coded according to three zones (north, middle and south), residence in 1987 has only been examined for the whole region. Since movement between the West Bank and Gaza was minimal, this means that regional movement for Gaza residents is also minimal.
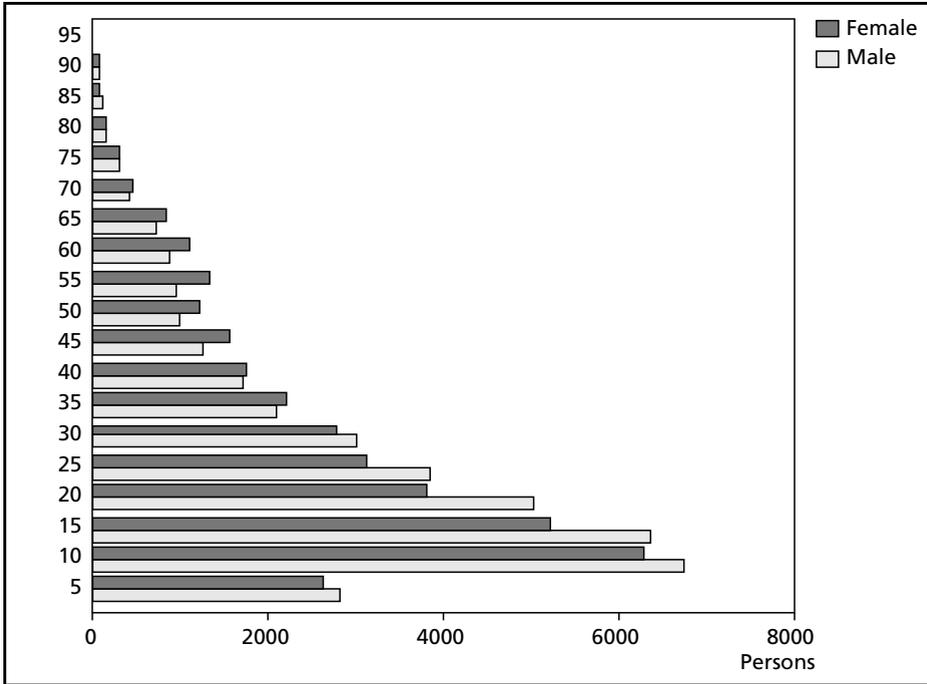
Figure 7.7a Age sex structure of non-migrants

Figure 7.7b Age-sex structure of local migrants West Bank and Gaza Strip: Movements since 1987
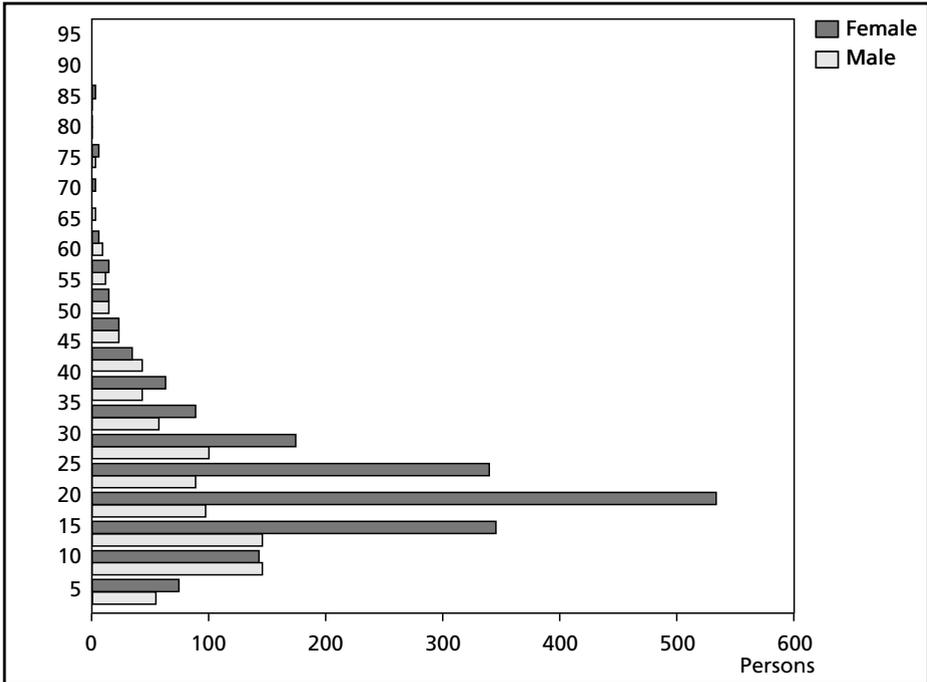
Figure 7.7c Age-sex structure of regional migrants West Bank and Gaza Strip: Movement since 1987
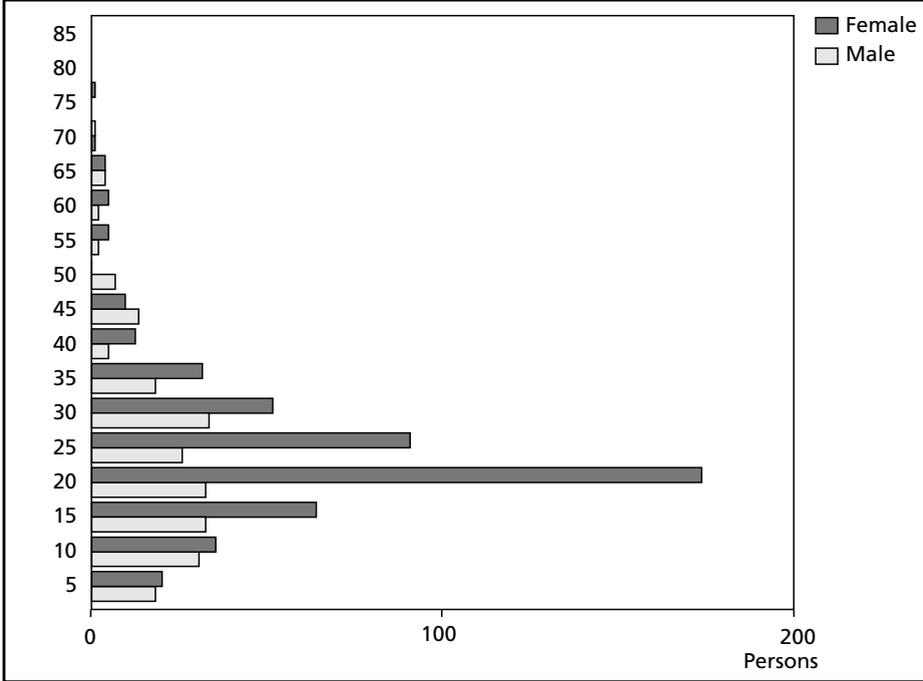

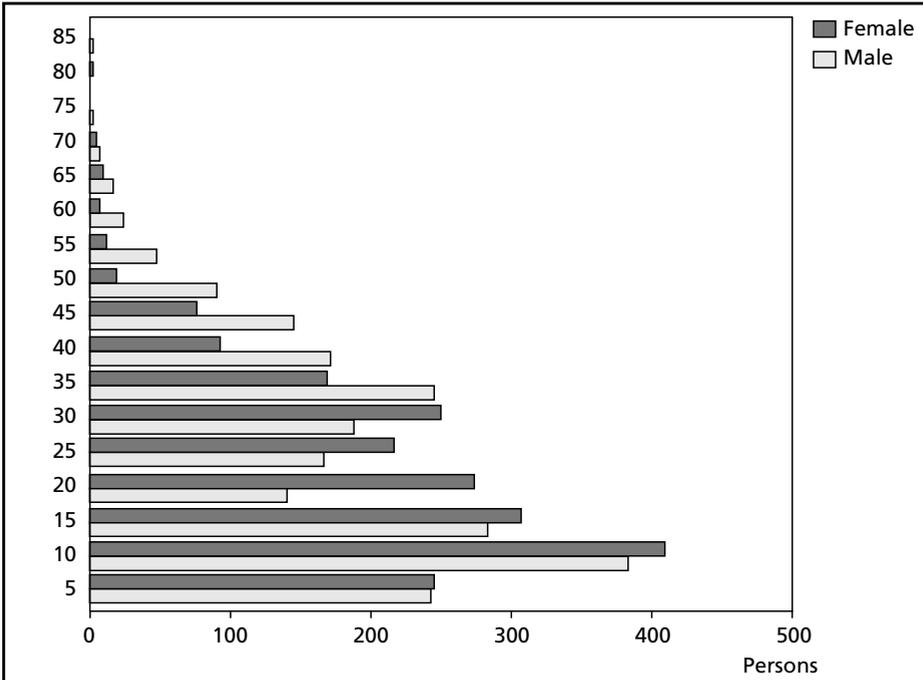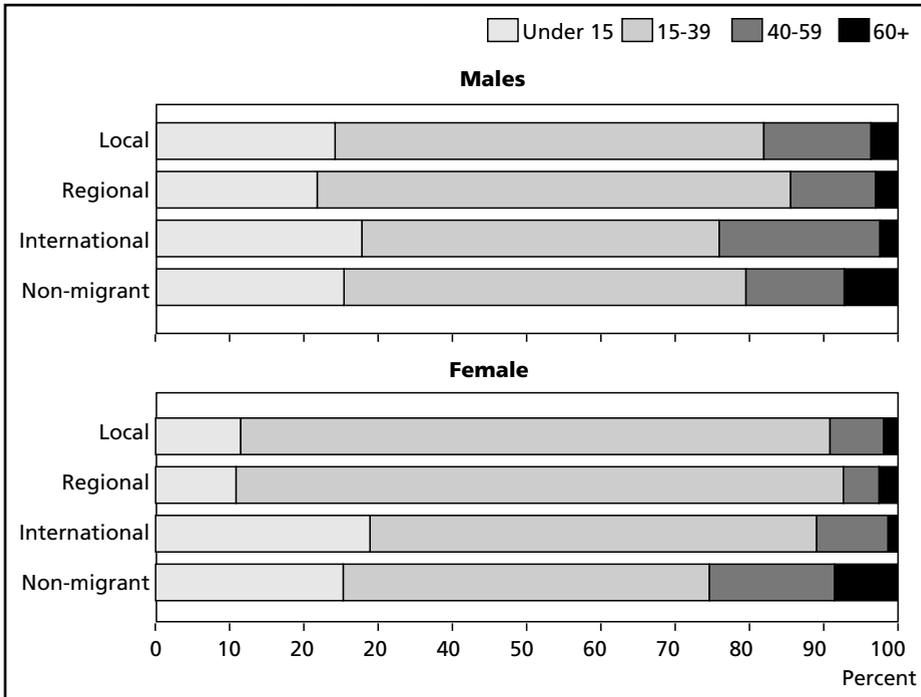Figure 7.7d Age-sex structure of international migrants

Figure 7.8 Age distribution by migrant types: Movements since 1987

International migrants

It must be reiterated that international migrants (those living abroad in 1987 and in the West Bank and Gaza Strip at the date of the survey) are not necessarily representative of all people who leave the West Bank and Gaza Strip to go abroad. They fall into two main groups: people born abroad who have come to live in the West Bank and Gaza Strip, and Palestinians who were temporarily abroad in 1987 but have since returned. Younger people (under 15) are much more likely to be of the former, but for older people it depends on their gender. For example, of the men who were living in Jordan in 1987 (Figure 7.9), 58 percent had been born in the West Bank or Gaza Strip and 34 percent were born in Jordan. Of women living in Jordan in 1987, 36 percent had been born in the West Bank or the Gaza Strip and 55 percent were born in Jordan, suggesting that there is a considerable flow of women from Jordan to marry in the West Bank. In fact 73 percent of the 268 women born in Jordan who moved into West Bank and Gaza Strip since 1987 married in the last 8 years.

Figure 7.9 International migrants' country of residence in 1987 Numbers by sex
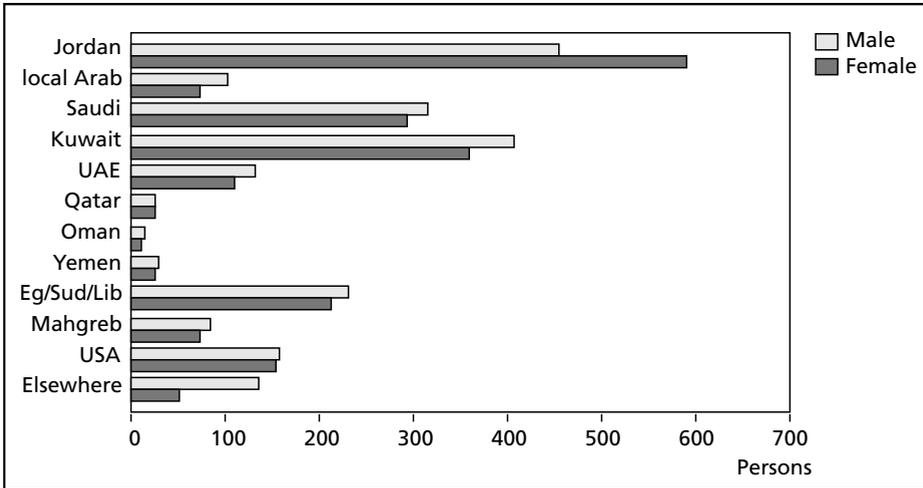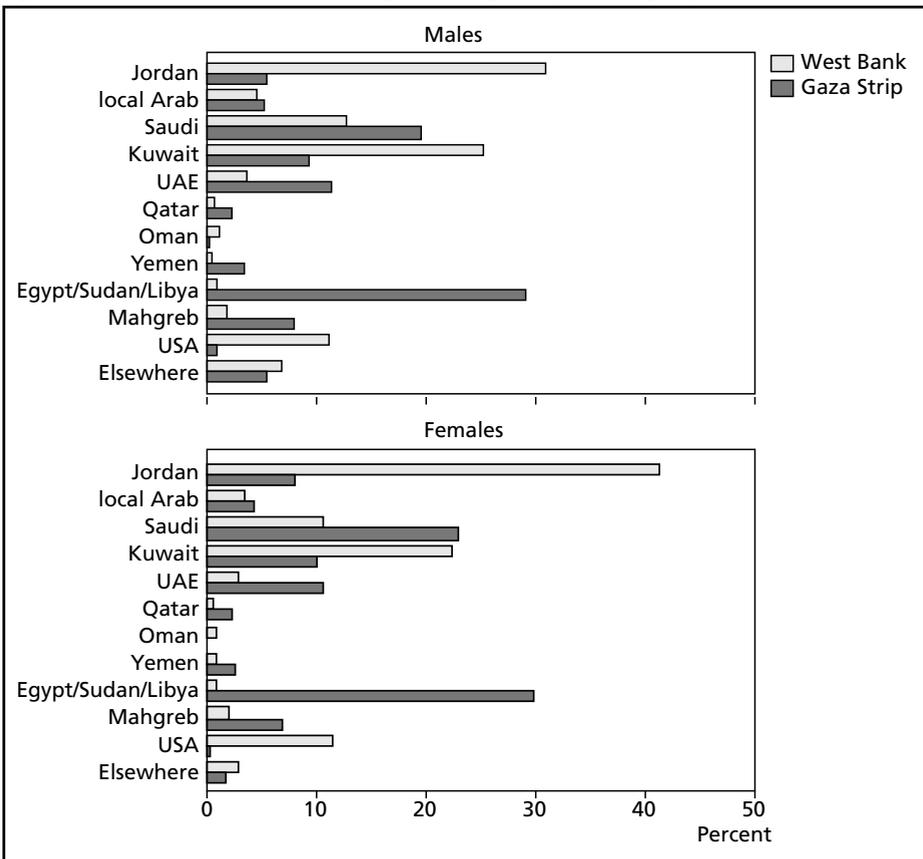

Figure 7.10 Returned international migrants: Regional percentage by residence in 1987

International migration differs between Gaza Strip and the West Bank

Patterns of international migration differ substantially between the Gaza Strip and the West Bank (Figure 7.10). The West Bank has substantial links with Jordan, Kuwait and the USA, whereas less than eight percent of international migrants in the Gaza Strip were in Jordan in 1987 and around 30 percent were in Egypt and Libya (two thirds from Egypt and one third from Libya). Of the links with Gulf States, Saudi Arabia and UAE are more important for Gazans and Kuwait more important for those in the West Bank.

7.4 Conclusions

Although net out-migration from the occupied territories is undoubtedly very important, the DS really only provides good data on lifetime migration and recent internal migration. However, some evidence for the importance of links with other regions is available. For migration, like fertility, it is not really sensible to consider Gaza and the West Bank as one unit. The external influences on each place are very different, reflecting both their geographic location and their historical links. The most important link outside the occupied territories is undoubtedly with Jordan, although this link is far more marked for the West Bank than for the Gaza Strip.

Table 7.6 Percentage of population by migration status (since 1987) and current region of residence

Region	Migrant within region	Migrant between regions	Abroad in 1987	Not migrant	Total (un-weighted)
Jenin	3.0	0.6	5.3	91.1	6060
Tulkarem	3.1	1.0	6.9	88.9	6419
Nablus	1.8	1.0	6.1	91.1	7935
Ramallah	3.0	1.4	6.2	89.4	7599
Jerusalem	11.1	2.7	4.4	81.9	5189
Jericho	0.0	3.9	3.8	92.2	1122
Bethlehem	2.9	1.6	4.2	91.3	4687
Hebron	1.6	1.0	2.7	94.7	13359
Gaza north	3.2	0.1*	5.2	91.5	12963
Gaza middle	7.0	0.1*	4.7	88.2	4569
Gaza south	2.4	0.0*	6.8	90.8	8859

·Movements between Gaza north, middle and south were classified as movements *within* region. Thus "between region" includes only movements from the West Bank.

The differences between the two areas are further emphasised when examining flows of regional migration. Between 1987 and the survey only 17 people in the sample moved from the West Bank to Gaza and only 20 from Gaza to the West Bank (see Table 7.6).

By summarising the different migration movements since 1987 by region, Table 7.6 shows that East Jerusalem and middle Gaza are the only regions with more than five percent internal mobility, and with the exception of Jerusalem and Jericho, the movement between regions is minimal. Even these major administrative and urban centres have received a very small flow of in-migrants over the last eight years. With the exception of Jerusalem and central Gaza, international return migration is more important than local and regional movements combined. This probably reflects Israeli restrictions on the ability to change residence. This, for example, is certainly the reason for the lack of migration between the Gaza Strip and the West Bank. However, lack of internal geographical mobility is probably also due to the very limited employment opportunities within West Bank and Gaza Strip, and the extensive kinship links with other countries, especially Jordan and the Gulf States.

Chapter 8 Housing Conditions

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Housing standards are an important feature of living conditions in a society. The aim of this chapter is to give an overview of housing conditions in the West Bank and Gaza Strip, using relevant data from the Demographic Survey.

8.1 Crowding

As shown in Chapter 2, the average number of persons per household is relatively large both in the Gaza Strip (7.8) and in the West Bank (6.6). However, there are some variations by type of residence. While refugee camps in Gaza have the largest households, towns in the West Bank have the smallest ones. Given the large household size and other data on housing conditions, the space available per person must be small (Øvensen 1994).

The number of inhabitants per room within a housing unit is a good indicator of how small the space available per person. As shown in Table 8.1, households in the Gaza Strip have least space available for household members (2.6 persons per room), with crowding most acute in the Gaza refugee camps (2.8 inhabitants per room).

Forty two percent of households living in Gaza's refugee camps have three or more people per room, compared to only 31 percent of West Bank refugee camps' households (see, Table 8.2). Households in West Bank towns have most space available per person, with only 19 percent of households having three or more persons per room. The refugee camps' households are the most crowded and urban areas are the least crowded, although there are differences between Gaza and the West Bank.

Table 8.1 Average number of inhabitants per room by area

	West Bank				Gaza				All house-
		Refugee				Refugee			
	Town	camp	Village	Total	Town	camp	Village	Total	holds
Mean	2.0	2.5	2.4	2.3	2.4	2.8	2.7	2.6	2.4
N	3733	801	6099	10633	2489	1804	630	4933	15556

Table 8.2 Number of inhabitants per room by area

Inhabitant per room	West Bank				Gaza				All house-holds
	Town	Refugee camp	Village	Total	Town	Refugee camp	Village	Total	
Less than 1	15	6	8	10	8	4	4	6	9
1.00–1.99	39	30	32	34	32	21	27	29	32
2.00–2.99	27	34	30	29	33	31	29	32	30
3.00+	19	31	29	26	27	42	39	34	28
N	3733	801	6099	10633	2489	1804	630	4923	15556

8.2 Variation in construction

Traditionally, the main material used in housing construction in both the West Bank and the Gaza Strip has been either limestone or adobe (Heiberg 1993), but today there are substantial regional variations in the type of construction material used in the Palestinian housing stock. Dwellings in the refugee camps, both on the West Bank and in the Gaza Strip, are almost all made of cement/brick and the same is true of most houses elsewhere in the Gaza Strip. However, this is not the case in the urban part of the West Bank where the majority of dwellings are made of stone (46 percent).

The combination of cement and brick is less expensive than limestone for use in construction. Limestone is favoured by prosperous Palestinians and is required by law in most of Arab Jerusalem and Ramallah municipality. Thus, the least expensive building material is used in the Gaza Strip but the more expensive ones are relatively common in the West Bank.

Table 8.3 Type of construction material by region (Percent)

Type of Construction Material	West Bank				Gaza				All house-holds
	Town	Refugee camp	Village	Total	Town	Refugee camp	Village	Total	
Cement/Bricks	30	90	54	48	99	100	96	99	63
Stones	46	2	22	30	0	0	0	0	20
Cement and Stones	22	2	17	18	0	0	4	1	13
Other	2	6	6	5	1	0	0	0	3
N	3732	799	6094	10625	2488	1805	629	4922	15547

8.3 House ownership

Property ownership is regarded as important among Palestinians, since real estate has been one of the few things in which money can be invested. In addition, property has given household members security in a situation characterised by political instability. Forms of ownership can be very complex in both the West Bank and the Gaza Strip, where UNRWA has initially provided housing for many of the refugees in the area (Schiff 1995). About 80 percent of all households report owning their own house, which is considered very high. However, this figure masks important regional variations. Village residents of both areas report most home ownership, whereas a lower percentage owns their homes in refugee camps (Table 8.4). On the other hand, the rented sector is not very important in the region. There are few units available for rent and prices are relatively high. Rental is most common in the West Bank towns, where 22 percent of households live in rented dwellings.

In Fafo's Living Conditions Survey (Heiberg and Øvensen 1993), 56 percent of households reported owner occupancy, whereas 19 percent reported that the house they lived in was owned by the extended family (Heiberg 1993), implying family ownership of about 75 percent overall. Thus, house ownership has apparently increased from 75 to 80 percent of households in the three-year period (Table 8.4).

Only 15 percent of households living in refugee camps in the Gaza Strip report that their dwelling is leased from UNRWA — much lower than the 72 percent reported in the FALCOT92 survey (Heiberg 1993). This contrasts with the 30 percent leased from UNRWA in West Bank refugee camps reported in both the DS and FALCOT92. Several factors could be put forward to explain this discrepancy in figures between 1995 and 1992 for the Gaza Strip, including the consequences of Gaza's «independence» from Israel since 1994. Camp refugees in Gaza consider the house they live in as their own, and not as UNRWA's. There has also been an informal process of Palestinian refugees buying the land «their» house is built on from the original owner (large influential families or large Bedouin families) both in the Gaza Strip and the West Bank, but also in Lebanon and Jordan.

Table 8.4 Tenure by residence (percent)

| Tenure | West Bank | | | | Gaza | | | | All house-holds |
	Town	Refugee camp	Village	Total	Town	Refugee camp	Village	Total	
Owned	70	65	89	80	81	77	91	81	80
Rented	22	3	5	11	8	2	3	5	9
Leased from UNRWA	0	30	0	2	0	15	0	6	3
Occupied without payment of rent	8	2	6	6	11	6	5	8	7
N	3734	801	6099	10634	2488	1805	629	4922	15556

Table 8.5 Percentage of households that have extended their dwellings

| | West Bank | | | Gaza Strip | | | Total | | |
| | | Refugee | | | Refugee | | West | Total | All house- |
	Town	camp	Village	Town	camp	Village	Bank	Gaza	holds
Extended	15	42	22	10	20	9	21	14	19
N	3731	801	6095	2484	1805	629	10627	4918	15545

Increased building activity from 1993 has occurred, especially in Gaza (World Bank 1996), mainly using money brought back by Gulf returnees. Some of this money has probably also been used to extend houses in refugee camps which might contribute to a stronger perception of house ownership for households living there. However, out of the 19 percent (Table 8.5) who reported extending their house, only 20 percent lived in Gaza refugee camps and 42 percent lived in West Bank refugee camps. Thus, these figures do not explain the discrepancies in owner occupancy over time within refugee camps in the Gaza Strip and between the West Bank and the Gaza Strip. Other factors, which might have caused this anomaly, could be measurement problems, or sampling errors (especially in FALCOT92), or both.

Table 8.6 Main source of drinking-cooking water by residence (percent)

| | West Bank | | | Gaza Strip | | | Total | | |
| | | Refugee | | | Refugee | | West | Total | All house- |
Main Source	Town	camp	Village	Town	camp	Village	Bank	Gaza	holds
Indoor public system	87	96	62	95	98	95	74	96	81
Outdoor public system	2	3	4	1	1	3	3	1	2
Individual well	9	0	28	3	0	1	19	2	14
Tanker truck	1	0	2	1	0	0	2	0	1
Other sources	1	1	4	0	1	1	2	1	2
N	3734	801	6099	2489	1805	629	10634	4923	15557

Table 8.7 Supplementary water requirements (percent)

| | West Bank | | | Gaza Strip | | | Total | | |
| | | Refugee | | | Refugee | | West | Total | All house- |
Frequency of need	Town	camp	Village	Town	camp	Village	Bank	Gaza	holds
Once a week	12	3	21	14	11	5	16	11	15
Once a month	6	5	12	1	0	1	9	1	6
Rarely	14	9	17	2	2	3	15	2	11
Never	69	83	50	83	87	91	60	86	68
N	3734	801	6099	2489	1805	629	10634	4923	15557

Table 8.8 Sewage disposal system by residence (percent)

| Sewage | West Bank | | | Gaza Strip | | | Total | | |
| | | Refugee | | | Refugee | | West | Total | All house- |
	Town	camp	Village	Town	Camp	Village	Bank	Gaza	holds
Public sewer	51	45	3	58	50	20	24	49	32
Septic tank/cesspit	48	53	93	42	49	78	73	50	66
Other means	2	3	4	1	1	2	3	1	2
N	3728	801	6096	2489	1804	628	10625	4921	15546

Dwelling extensions are most frequent in refugee camps in both areas presumably because this is the only way of obtaining more living space.

8.4 Infrastructural amenities: Water and sewage

The availability and quality of drinking and cooking water has implications for a population's health. Although water is a scarce resource in the Middle East, 96 percent of households in the Gaza Strip and 74 percent of households on the West Bank have an indoor tap from a public system as their main source of drinking/ cooking water. Twenty eight percent of village households on the West Bank have an individual well as their main water source, as do 9 percent of the urban West Bank households.

Despite the fact that most households in the Gaza Strip are served by a public water supply system, 11 percent of households report that they need other sources of drinking water as often as once a week. This is particularly true of households living in «urban» Gaza and in the refugee camps. The problem is more acute in the West Bank, where 16 percent of all households need other sources of water once a week, a problem most common in villages.

This survey did not measure the quality of drinking water, although it has been reported that this has deteriorated, particularly in the Gaza Strip, where increasing salinity is a cause for concern (Bruins and Tuinhof 1991).

Sewage disposal also has implications for health. Seventy three percent of the West Bank households and 50 percent of the Gaza Strip households have a septic tank or a cesspit. Almost all other households in the Gaza Strip are linked to a public sewer (49 percent). Village dwellings are least likely to be attached to mains sewers, especially in the West Bank.

8.5 Households assets

The ownership of commodities and access to facilities is an indicator of living conditions both for individual households and for the society as a whole. Respondents were asked whether any member of their household owned a private car, or a commercial car, or both (Table 8.9, on the next page). Thirty two percent of urban West Bank households own a private car compared to only 14 percent of Gaza refugee camp dwellers. Commercial car ownership is much lower, but less variable, throughout the different residential areas.

The respondents were also asked whether their households had various assets and amenities (see, Table 8.10). Electricity is connected to almost all (98 percent) dwellings throughout the Occupied Territories. Telephones are less common, although 44 percent of urban West Bank households have one. The households with most amenities are those in the urban West Bank, while the worst off are West Bank villages.

An amenity index was constructed in order to get a better indicator of the 'material' situation of households in the area. The index was created by adding ten of the household's amenities together: private car, commercial car, colour television, refrigerator, video, cook-stove, washing machine, flush toilet, bathroom and sink with piped water. A household could score from 0 to 10, where 10 indicates that it has all the items included in the index. Using this index, it can be seen that there is little difference between the West Bank and Gaza Strip in terms of their material situation (Table 8.11). The mean, however, masks important differences in the distribution of assets in the two areas (see figure 8.1). A greater percentage of households in the West Bank have either very few assets (15 percent have two or less compared to only 12 percent households in the Gaza Strip) and more West Bank households have 8 or more assets (20 percent compared to 15 percent in Gaza).

Table 8.9 Car ownership (percent)

| | West Bank | | | Gaza Strip | | | Total | | |
| | | Refugee | | | Refugee | | West | Total | All house- |
Type of Car	Town	camp	Village	Town	camp	Village	Bank	Gaza	holds
Private car	32	16	21	23	14	15	25	19	23
Commercial car	6	6	5	5	4	5	5	4	5

Table 8.10 Household assets and amenities by region (percent)

| | West Bank | | | Gaza Strip | | | Total | | |
| | | Refugee | | | Refugee | | West | Total | All house- |
Amenities	Town	camp	Village	Town	camp	Village	Bank	Gaza	holds
Electricity	99	99	97	97	99	97	98	98	98
Telephone	44	13	12	27	11	15	24	19	23
Black/white television	21	30	32	28	36	36	28	32	29
Colour television	80	69	60	63	55	44	68	57	65
Refrigerator	93	90	79	87	82	80	85	84	85
Video	30	16	13	17	12	10	19	14	18
Cook-stove (electric or gas)	76	64	64	63	56	46	68	58	65
Washing machine	83	76	60	81	76	63	70	76	71
Central heating	5	0	1	0	1	0	2	0	2
Air conditioning	3	2	1	2	1	0	2	0	2
Flush toilet	59	27	30	56	25	40	41	42	41
Arabic toilet	71	89	84	82	94	91	80	88	82
Bathtub or shower	81	69	65	87	86	87	72	87	76
Sink with running water	91	84	75	89	87	85	81	88	83

Thus, whereas this appears to be a society that is relatively well endowed with material possessions, Gaza seems more egalitarian than the West Bank.

There are, however, notable differences within each region: urban households are substantially better off than their rural or camp counterparts. Likewise, there are considerable differences between female-headed and male-headed households. Female-headed households have the lowest score on our index irrespective of region, with only one exception – households with young heads (aged 15–24). Younger (15–24 years) and older (65 years plus) heads of households are worst off; this is almost certainly a function of life cycle changes. Refugee status has a larger effect on the

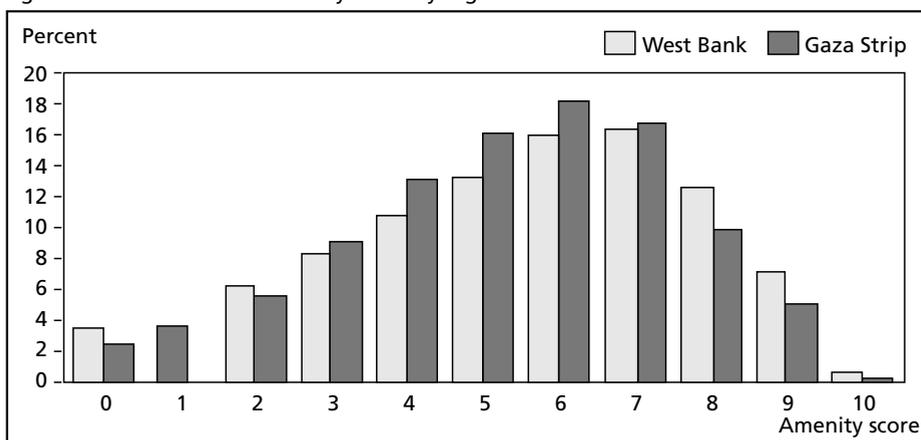Figure 8.1 Distribution of amenity index by region

Table 8.11 Average score of amenity index by residence and characteristics of household head

| | West Bank | | | Gaza | | | Total | | |
| | | Refugee | | | Refugee | | West | Total | |
Indicator	Town	camp	Village	Town	camp	Village	Bank	Gaza	All
All households	6.2	5.2	4.6	5.7	4.9	4.8	5.2	5.3	5.2
Sex of household-head									
Male	6.2	5.3	4.7	5.7	5.1	4.9	5.3	5.4	5.3
Female	5.4	3.6	3.5	4.2	3.5	3.4	4.3	3.7	4.2
Refugee status									
Refugee	6.4	5.1	5.0	5.5	4.9	4.4	5.5	5.1	5.3
Non-refugee	6.1	5.4	4.5	5.8	6.7	5.1	5.1	5.7	5.2
Age of household-head									
15–24	4.7	4.4	3.6	4.8	3.9	4.1	3.9	4.4	4.1
25–34	5.9	5.4	4.6	5.7	5.0	5.0	5.1	5.3	5.1
35–44	6.4	5.7	5.2	5.9	5.4	5.3	5.6	5.7	5.6
45–54	6.5	5.4	5.0	5.9	5.0	4.9	5.6	5.5	5.6
55–64	6.3	5.0	4.6	5.4	5.0	4.2	5.3	5.1	5.2
65 or more	5.6	4.0	3.9	5.1	4.1	3.2	4.5	4.4	4.5

Gaza households than on those from the West Bank where there is little material difference between refugees and non-refugees. It is interesting to note that the very few non-refugee heads of household who live in refugee camps both in the West Bank and in the Gaza Strip, have higher scores than refugees living in refugee camps.

Thus, characteristics of the household head, along with regional and social characteristics of households, are correlated with material well being.

8.6 Conclusions

The Gaza Strip has larger households, more overcrowding and uses cheaper building materials than in the West Bank. Thus, in general, housing conditions are worse in the Gaza Strip although there is variation within the Gaza Strip with urban households best off and refugee camp households worst off.

The general pattern of housing conditions on the West Bank is similar to the Gaza Strip: households in urban areas have better general housing conditions than rural and refugee camp households. However, although building materials and space are better on the West Bank, there is less access to a sewerage network and slightly fewer internal amenities (particularly in rural areas) than in the Gaza Strip.

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Appendix A Sampling strategy

Hassan Abu-Hassan and Steinar Tamsfoss

A *sampling strategy* comprises two main elements: a sample *design* describes how the sample units are selected, and the *estimators* by which survey results can be computed from sample data. The two elements are usually closely interrelated, and determine the quality or reliability of survey estimates. In this appendix, both elements will be described briefly. A more detailed description is offered in a separate working paper (Abu-Hassan and Tamsfoss 1995).

The sample design adopted is a stratified three-stage design for selection of households to be surveyed. At the first stage, a sample of *localities* was selected. The sample localities were subdivided into *cells* of approximately equal size, and a number of cells were selected randomly from each of the sample localities at the second stage. At the third and final stage, a sample of *households* was selected from the sampled cells.

Although a two-stage design would have been preferable, the present design is partly an outcome of limited availability of data, specifically data on the population size of various small area units, e.g. cells. The sample design was implemented in parallel with the updating of maps for the localities in the West Bank and Gaza Strip during the winter and spring of 1995 - another PCBS project. Due to time constraints, we had to complete the design before an updated set of locality maps was ready, and thus the small area information needed was available for only a limited number of localities. However, the map updating was co-ordinated with the sample design in such a way that once the first stage sample of localities had been selected, mapping of these localities was given highest priority, thus offering an opportunity to subdivide sample localities into cells with a known measure of (population) size.

The present design is based on a listing of localities provided by Barghouti and Daibas (1993) for the West Bank, and Abdeen and Abu-Libdeh (1993) for the Gaza Strip. Even though the population figures are rough estimates for1992-93, produced mainly by questioning local administration informants (e.g. *Mukhtar*s) about the number of families in the locality, or projected estimates, they appear to be fairly consistent with other sources (e.g. Benvenisti and Khayat 1988). Furthermore, the present frame comprises more localities than previous ones, and should thus be more complete, although some areas might have been missed.

The maps for the sample localities were updated with respect to roads, buildings and a rough assessment (from outside) of the number of *dwelling units* in each building. The latter information offered an opportunity to subdivide localities into the approximately equally sized cells - the number of dwelling units being the measure of size.

The sample design

Although the design is principally a stratified three stage one for sampling of households, there are practically only two stages of selection in most cases - i.e. all of the Gaza Strip and almost all municipalities and refugee camps in the West Bank. The three-stage design applies mainly for villages in the West Bank.

The first stage comprises the assigning of *localities* as listed by Barghouti and Daibas (1993) and Abdeen and Abu Libdeh (1993) to be the *Primary Sampling Units* (PSUs), the stratification of the PSUs, and the selection of sample PSUs from each stratum. The stratification is a subdivision of the PSUs according to district, administrative status of the locality, and estimated population size. The PSUs were selected independently for each stratum, and with probability proportionate to estimated population size.

The second stage subdivision of sample PSUs into *cells* or Secondary Sampling Units (SSUs) was done on maps, indicating the building location and a rough estimate of the number of *dwelling units* in each building. Thus, for each sample PSU or locality as a whole, there were two size measures available: the estimated number of households, and the roughly estimated number of dwelling units. Although these sets of measures proved to be positively correlated, they were substantially different in most cases. However, the number of dwelling units was the only measure of size available for the cells. Therefore, when selecting the sample cells from each sample PSU with probability proportionate to size, we used dwelling units as a measure of size. This is a conceptually different size measure than the one applied at the first stage of (household) selection.

For each sample cell, the population has been listed by enumeration of *buildings* (map reference), and *dwelling units*. It should be noted that the number of dwelling units in each building was assessed from outside — no thorough inquiries were made. The enumerated listings of dwelling units constitute the *Sampling Frame* from which the household sample has been selected at a third stage by systematic sampling.

The planned sample size was 15,000 households. However, due to imperfections envisaged in the sampling frame (several non-eligible units included), over-sampling

was carried out at a rate of approximately 25%, i.e. the gross sample selected at the outset comprised around 19,000 dwelling units. The sampling design and sample allocation yields a household sample with varying inclusion probabilities. In order to have unbiased results, it is thus recommended that all estimates are based on weighted observations, the weights being the inverse of the respective inclusion probabilities. The formula for calculating the overall inclusion probability of an arbitrary household (or, more precisely, dwelling unit) varies somewhat with the selections done at the previous stages (see, Table A). The notations are as follows:

N	= Total population size (estimated number of households)
(s)	= Stratum index
$K(s)$	= Total number of PSUs in the s-th stratum
$k(s)$	= Sample number of PSUs in the s-th stratum
$N(s)$	= Total number of households in s-th stratum (estimate)
(s,k)	= Locality (PSU) index (k-th PSU in s-th stratum)
$M(s,k)$	= Total number of cells in PSU(s,k)
$m(s,k)$	= Sample number of cells in PSU(s,k)
$N(s,k)$	= Total number of households in PSU(s,k) (estimate)
$D(s,k)$	= Total number of mapped dwelling units in PSU (s,k)
(s,k,c)	= Cell index (c-th cell in PSU(s,k))
$N(s,k,c)$	= Total number of households in Cell (s,k,c) (estimate)
$n(s,k,c)$	= Sample number of dwelling units in Cell (s,k,c)
$D(s,k,c)$	= Total number of listed dwelling units in Cell (s,k,c)

Table A Overall Inclusion Probabilities, P(s,k,c)

	Sample no. of PSUs less than total no. of PSUs in the stratum	All PSUs in the stratum are included in the sample
	$k(s) < K(s)$	$k(s) = K(s)$
Sample no. of cells less than total no. of cells in PSU	$m(s,k) < M(s,k)$	
All cells in PSU inclu- ded in the sample	$m(s,k) = M(s,k)$	

Generally, the overall inclusion probability is denoted *P(s,k,c)*, indicating that all households in cell (s,k,c) have the same probability of being selected, however varying from cell to cell. It should be noted that non-eligible dwelling units (i.e. units which are not inhabited by households) have been removed from the sample. This does not affect the inclusion probabilities above. The actual values of the inclusion probabilities are in the range, 0.0103 - 0.1732. The vast majority of cells are in the range, 0.04 - 0.08. Only a very few (small) cells are near the extremes. The largest

values appear in cells where the sampling frames proved to comprise an unexpected large number of non-eligible units, implying an increase in the over-sampling rate.

The weights used in the estimation were calculated as relative weights based on the inverse sampling probabilities. However, they were adjusted for non-response using an adjustment cell approach based on the strata (see, Little and Rubin 1987).

A characteristic of complex samples such as this one is that ordinary variance estimators as supplied by common statistical packages such as SAS or SPSS are not applicable. Different variance estimators must be used. Variances has been calculated using CENVAR (US Bureau of the Census 1994) and is also possible to carry out taking advantage of another aspect of the sampling design. Within each stratum, PSUs were selected in two independent groups. This allows for variance estimation by the so-called Balanced Repeated Replication method. Estimates of variances for the survey can be found in the tabulation reports issued by PCBS (1996, 1997).

Growing Fast

The Demographic Survey of the West Bank and Gaza Strip was one of the first large scale surveys carried out by the Palestinian Central Bureau of Statistics (PCBS). The survey was implemented with technical assistance by Fafo, and it has provided basic demographic indicators at a time when no credible such information existed. A series of tabulation reports have been issued by the PCBS with invaluable information on the state and development of the population of Palestine. The present report provides an in-depth analysis of the survey data.