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Fertility trends in five Arab countries of the Eastern Mediterranean: following the path of Lebanon or writing their own story? [1]

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Introduction

The demographic transition to a condition of low mortality and fertility rates in Arab countries is occurring at a pace never before seen in any other region or epoch (Farzaneh and Medeiros, 2007:7-8, and ESCWA, 2005b and 2003). In the last 40 years, in countries like Syria and Jordan, synthetic fertility rates have gone from nearly eight children per woman to 3.5 and 2.7, respectively. In Lebanon, where this transition began earlier (Tabutin and Schoumaker, 2005: 627-630), the fertility rate is now below the generational replacement level.[2]

In addition to offering a first look at the complex socio-demographic reality of Eastern Mediterranean Arab communities, this paper is the result of an exercise of contrast between available statistics and the main theories and explanatory paradigms about the decline of the fertility rate. The objective of this contrast is to determine which offers an explanation that most coincides with reality.

In the first section, we describe the particular process of transition to a condition of low fertility, which the countries studied herein are going through. Afterwards, in the following three sections, we briefly describe the main postulates of the paradigms and explanatory theories about the decline of the fertility rate. One of these maintains that the decline of the fertility rate is due to the decline of the infant mortality rate. Another argues that it is a consequence of economic development (and of the consequent increase in per-capita income). Yet another attributes it to technological development and the increase in the demand for human capital. Next, in the fifth section, we defend the idea that the theoretical paradigm that is most supported by official statistics is this last one.

We include a sixth section which describes the role of other variables which are not considered fundamental by any of the classical theoretical paradigms but which, in our view, deserve mention in this article. Finally, in the seventh and last section, we present our conclusions.

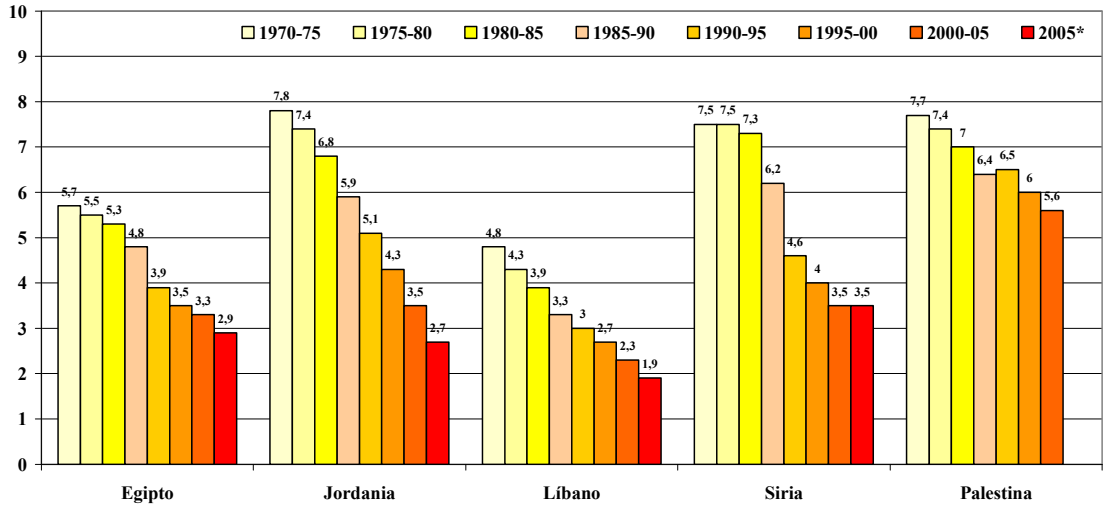
1. Important although unequal drops in synthetic fertility rates

A first analysis of the evolution of synthetic fertility rates in Eastern Mediterranean Arab countries allows us to make two fundamental considerations. The first is that Egypt, Jordan, Lebanon, Syria and Palestine have seen notable declines in their fertility rates over the last few decades. The second is that, despite this common denominator, the start dates of the transition as well as the pace at which it is occurring have been strikingly different.

[1] This paper was supported by Project SEJ2006-03485, from the National Plan of General Promotion of R&D&I Knowledge (2006-2009) of the Spanish Ministry of Education and Science.
[2] In countries with a low mortality rate, the average number of children one must have to assure generational replacement is 2.1.

Within this context of great heterogeneity, reflected in Graph 1, it is worth noting the role of Lebanon as the regional leader. It is the first and, up to now, the only country which has seen its fertility rates fall to below generational replacement levels. For its own part, Palestine is the furthest from completing the transition, with levels still above five children per woman.[3] This is the case even though the beginning of the decline in fertility occurred at the same time as in Jordan and nearly a decade sooner than in Syria. The fact of the matter is that no two countries in the region share the same pattern. Egypt and Lebanon have experienced similar declines of almost three children per woman since 1970, but starting from different levels initially, which explains why the differences between them have not diminished. Jordan, Syria and Palestine had almost the same rates in 1970, but while in Jordan the decline in fertility has been constant and gradual since then, in Syria it hardly varied between 1970 and 1985, plummeting afterwards between 1985 and 1995. In Palestine, where the decline has also been gradual and constant[4], it has been much smaller than in Jordan.

Graph 1: Total fertility rates



Source:United Nations Department of Economic and Social Affairs / Population Division (Country profiles)

**Source: US Census Bureau/International Data Base (http://www.census.gov/ipc/www/idb/)*

An analysis focused on the observation of specific fertility rates according to mothers' ages[5] (see Graphs 2a and 2b) allows us to see that from 1980 to 2005, there were significant drops in all groups.[6] We can also see that in countries where the fertility rate fell the most, the phenomenon was distributed more evenly among the different age groups.

The fertility rate of adolescents aged 15 to 19 deserves additional commentary because of its special significance. In 1980, only Lebanon had specific fertility rates lower than 50 births per one thousand adolescents. In 2005, this figure was exceeded only in Palestine. This has been a change of great importance and is one of the main reasons behind the global drop in synthetic fertility rates in each of the region's countries.

As for the fertility rates of women older than 19, the differences between the countries analyzed here are still very striking. Lebanon and the Palestinian region of Gaza occupy the first and last positions of the range, the former with the lowest rates and the latter with the highest, in each of the age groups considered. The fertility rates of Egypt are similar to those of Syria and higher than those of Jordan among the youngest groups of women, but significantly lower among women older than 30.

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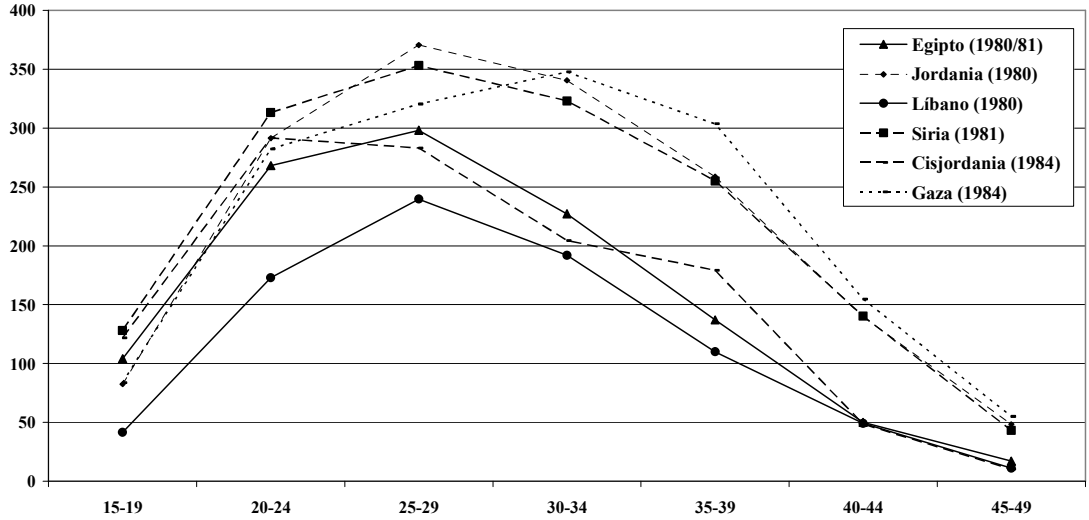
[3] It is important to point out that, while in Gaza the SFR (synthetic fertility rate) fell from 5.7 to 4.4 children per woman between 1984 and 2005, in the West Bank it fell from 7.7 to 5.9, according to the U.S. Census Bureau (http://www.census.gov/ipc/www/idb).

[4] Except for the period from 1990 to 1995, when the fertility rate rose slightly compared to the previous five years.

[5] Number of births by mothers belonging to a specific age group per thousand women from this group by mid-year.

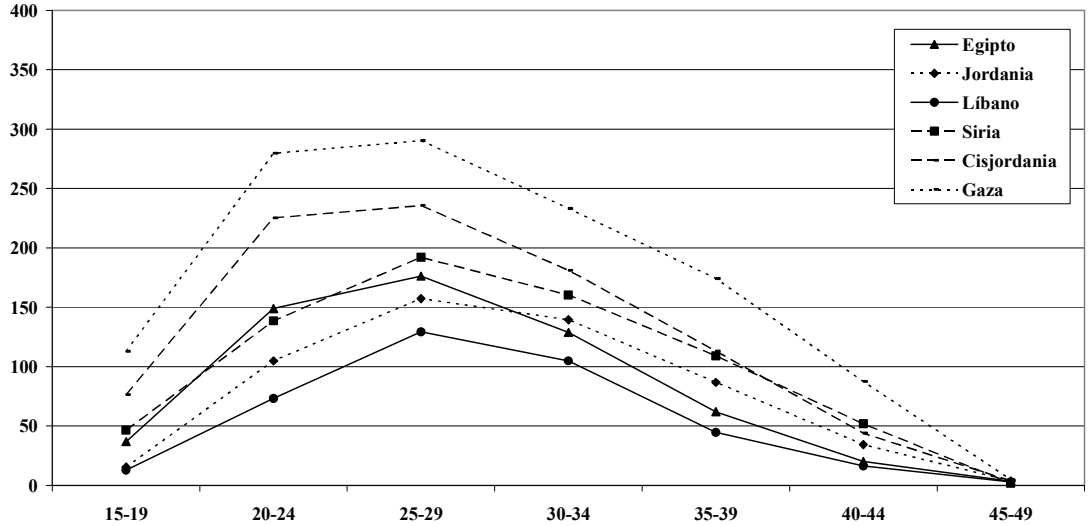
[6] Except for 15 to 19-year-old women from Gaza, whose fertility rate increased from 83.7 to 112.9 births per thousands women.

Graph 2a: Age specific fertility rates from 1980 to 1984



Source: US Census Bureau/International Data Base (http://www.census.gov/ipc/www/idb/)

Graph 2b: Age specific fertility rates in 2005



Source: US Census Bureau/International Data Base (http://www.census.gov/ipc/www/idb/)

We can thus see that, although all of the countries studied here are moving towards a condition of low fertility, the differences between some of them have increased significantly in the last few decades, since not all of them are undergoing the change at the same rate. As such, we have decided to contrast the official statistics available with the main postulates of the most relevant theoretical paradigms that have dealt with the drop in fertility, trusting that we can offer a convincing explanation for this striking regional heterogeneity.

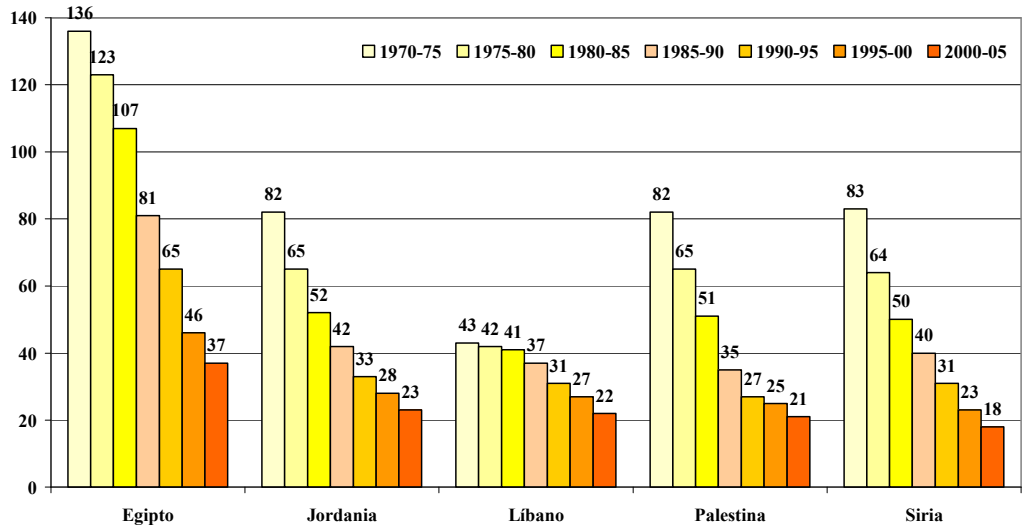
2. The fall of the fertility rate as a consequence of the fall of the infant mortality rate[7]

The most widespread paradigm that explains the fall of the fertility rate is probably the one which considers it the result of a previous decline in the infant mortality rate.[8] According to this theory, after the start of the decline of the infant mortality rate and the consequent rise in life expectancy at birth, there is, at a slower pace, a gradual decline in the fertility rate. This decline would be the result of adapting reproductive behaviour by couples to a new epidemiological situation in which the number of offspring which die before reaching adulthood clearly has fallen.

Certainly, in addition to the drop in fertility rates, the entire region has seen significant declines in infant mortality rates. In Graph 3, it can be seen that, between 1970 and 2005, the countries studied here almost completed the transition from a state of high mortality rates to one of low ones.[9] This process has given rise to a growing convergence towards the values for Lebanon, the country which leads the region in this statistic and which began this transition almost a decade earlier (Tabutin and Schoumaker, 2005: 627-630). At present, only Egypt has an infant mortality rate higher than 25 deaths per thousand live births. However, given how quickly these rates have fallen in the last several years, it is reasonable to expect that Egypt will be below this threshold before the end of the current decade.

Parallel to the drop in infant mortality, all of the countries in the region have also seen a significant drop in mortality among children under the age of 5[10], which has produced a marked increase in life expectancy at birth. As a result, as the figures in Table 3 in the Appendix show, the differences between Lebanon and the other countries, significant in the 1970s, are now much smaller.

Graph 3: Infant mortality rates



Source:United Nations Department of Economic and Social Affairs / Population Division (Country profiles)

However, a simple comparison between Graphs 1 and 3 allow the careful observer to detect the difficulties involved in considering the evolution of infant mortality as the only cause of the decline in fertility in the countries analyzed here. Although it is true that in all cases there have been major drops in mortality and fertility rates, it is also noteworthy that the almost total convergence that has occurred with infant mortality is still far from occurring with fertility.

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[7] Number of deaths before the age of 1 per thousand live births during one calendar year.
[8] The European Fertility Project already analyzed the relationship between the decline of fertility and the decline of infant mortality without reaching clear conclusions. Ansley Coale (1986).
[9] In accordance with the criteria established by the United Nations, high mortality is an infant mortality rate of greater than 108 per one thousand, and low mortality is a rate of less than 10 per one thousand.
[10] Brought about mainly by the spread of modern health practices like the use of antibiotics and vaccines (Farzaneh, 2001: 1).

It is really surprising that Syria, the country with the lowest infant mortality rate, has fertility rates that are significantly higher than those of Lebanon, Jordan and even Egypt, the country with the highest infant mortality rates. It should also be noted that Palestine, the country whose fertility rates are clearly the highest in the region, has infant mortality rates similar to those of Lebanon, Jordan and Syria. It is equally striking that the fertility rates of Jordan, Palestine and Syria began to fall at different times and continued to do so at different speeds, despite the fact that the decline in infant mortality has followed almost identical patterns in these countries. Another occurrence that does not fit the theory is the great advance Egypt made in its transition to a condition of low fertility even before its infant mortality rates fell below 100 deaths per thousand live births.[11] Lastly, it is astonishing that a country could complete the transition to a condition of low fertility without having previously completed the transition to a state of low infant mortality, as is the case of Lebanon.

In certain historical contexts, it has been proven that fertility corresponds more to the evolution of youth mortality[12] or to the probabilities of reaching adulthood (Sánchez Barricarte, 1998). In the case of the countries analyzed in this article, it is surprising to see that, as the figures in Table 3 in the Appendix reveal, the mortality rate of the population under the age of 5 has fallen in Syria and Palestine to levels below those of Lebanon even though their fertility rates are still much higher.

From all of the above, we must conclude that, although the role that the drop in mortality has played in the decline of fertility rates cannot be underestimated, this variable is totally insufficient for explaining the decline of fertility in eastern Mediterranean Arab countries, especially when trying to explain the differences between them.[13]

3. The drop in fertility as a consequence of economic development and the increase in per-capita income

Another explanatory paradigm which is very popular among demographers is one which postulates that the drop in fertility is a result of economic development and the consequent increase in per-capita income. In accordance with Becker (1981), an increase in the level of disposable household income precedes, and is the cause of, the decline in fertility. In a country with a high level of income, the opportunity cost of having more children increases considerably because it limits the time that the members of a couple (especially the woman) can devote to paid work. Likewise, the increase in the level of household income allows couples to choose to have fewer children in exchange for investing more in each offspring.

The fact that the country with the highest level of per-capita income, Lebanon, also has low fertility rates is perfectly consistent with the main postulates of this theory. In fact, if we order the five countries according to their per-capita income in the years 2000 and 2005 (see Table 7 of the Appendix), we see that this order is consistent with the predictions that can be deduced from this theory, as those countries with higher incomes always have lower fertility rates, and vice versa.

However, in our opinion, this theory suffers from the same limitations as the previous one. This is because, in the first place, the differences between the income levels of the countries studied here are relatively small compared to the differences in their current fertility rates.[14] Also, the spectacular decline in fertility rates of the countries in the region was not preceded by a constant and comparable increase in per-capita income. In fact, the evolution of the economic situation in the countries in the region has been tremendously irregular[15] over the last few decades, when periods of prosperity and an increase in public

[11] It is appropriate to recall that France and the United States also saw significant declines in their respective fertility rates before registering low infant mortality rates (Chesnais, 1992, and Greenwood and Seshadri, 2002).
[12] Mortality rate of the population under the age of five.
[13] Doepke (2005) and Fernández-Villaverde (2004) do not believe that, in the case of the United Kingdom, the drop in infant mortality was the factor that triggered the decline in fertility.
[14] It is appropriate to point out that, for example, in 1975, Egypt had a much lower level of per-capita income than Syria and Jordan, yet its synthetic fertility rate was 5.7 children per woman, a figure well below these two countries' respective rates of 7.5 and 7.8.
[15] The main cause of this irregularity is that the economies of these countries are closely linked to the income their neighbours in the Persian Gulf, their primary business clients, obtain from the sale of petroleum (World Bank, 2004). As a result, when the price of petroleum fell in the 1980s, their growth rates dropped considerably. This situation worsened with the outbreak of the first Gulf War in 1991. Afterwards, it improved as a result of higher oil prices, which the war also brought about, and from the increase in demand as a result of the reconstruction of Kuwait. This trend continued with the more recent invasion of Iraq and its subsequent reconstruction, and with the extraordinary development of the countries in the Gulf region, supported in their financial strength.

spending have preceded more recent phases of crisis and stagnation (World Bank, 2004, and ESCWA, 2001) . All in all, we believe that weak growth of disposable income combined with political instability[16] should not be accompanied by such marked drops in synthetic fertility rates if the main cause of the drop is indeed the increase in the level of per-capita income.

4. The drop in the fertility rate as a consequence of the increase in technological development and the demand for human capital

Some authors believe the principal mechanism behind the beginning of the demographic transition to a condition of low fertility rates is technological development and the resulting increase in the demand for human capital (Galor, 2005, Galor and Moav, 2004 and Galor and Weil, 1999, 2000). They maintain that a simple increase in per-capita income results in an increase in fertility rates, because under this circumstance, the salaries of a growing number of men are enough to maintain a model of the traditional family, in which the woman takes care of the home and attends to the children and the elderly. Likewise, in a context of weak technological development where child labour is prevalent, the incorporation of offspring into the labor market normally occurs at relatively early ages. This circumstance creates very favourable conditions for the maintenance of a higher number of children per woman (Hazan, Moshe and Berdugo, 2002 and Moav, 2005).

However, where there is a qualitative jump in technological development, the situation completely changes. First of all, a greater complexity in work tasks limits the possibilities of employing child workers and at the same time offers new opportunities to women, and requires a higher level of education on the part of an increasingly larger strata of society. As such, the model of the traditional home, in which the woman only occupies herself with domestic chores and the children enter the labour market before they reach their teen years, is no longer the ideal for a growing number of couples. The growing number of jobs that can be filled by women increases the opportunity cost of staying at home. At the same time, the decrease in child labour as a result of tougher legislation which outlaws this practice (Doepke, 2004, and Doepke and Zilibotti, 2003) and the increase in the demand for skilled labour make it more reasonable to limit the number of children in exchange for investing more in their education. Families and public authorities respond to the increase in demand for human capital with an equivalent or even greater increase in the supply, that is to say, fortifying institutions like free public education and keeping children in school for longer periods of time. Staying in school longer delays young people's entry into the labour market and, at the same time, their emancipation from home. This is something that, in the case of adolescents, has a clear impact on fertility rates, as under the new conditions they begin their reproductive cycle later in life.[17]

This decline in the fertility rate resulting from having a first child at a later age—that is, due to the drop in the specific fertility rates of women aged 15 to 19—opens the doors to a greater participation of women in the work force. As such, the transition to a condition of low fertility will accelerate in contexts where there are fewer gender inequalities (Galor, 2004, and Galor and Weil, 1996). In societies where education is restricted to men or where new job opportunities are off-limits to women, the female population will have fewer options to participate actively in the work force. As a consequence, the opportunity cost will be lower for those who choose to stay at home. All in all, if the benefits of technological improvements only result in an increase in men's salaries, the transition to a condition of low fertility will be slower. On the contrary, in societies which favour the use of human capital which women can contribute to non-domestic economic activity, there will be more homes where the income from working women takes on fundamental importance (Galor, 2004, and Lagerloef, 2003a and 2003b). The work of women will be even more important in those societies where the differences between the salary of a woman and the salary of a child will be much greater, and in those societies that in general pay women better for their work outside the home.[18]

[16] In addition to the Gulf War and the invasion of Iraq, endemic political conflicts like those suffered by Palestine and Lebanon have also had a negative effect on the political stability and economic growth of these countries.

[17] There are those who maintain that, in fact, there is a lot of evidence that this pattern is the one that best explains the initial increase and subsequent decline in fertility rates in most of Western Europe after the beginning of the Industrial Revolution (Galor, 2004, and Galor and Weil, 1999 and 2000).

[18] It is true that the increase of working women brings with it an increase in a country's level of per-capita income, but it must not be forgotten that this change is the result of an improvement in technological development followed by an increase in the demand for human capital.

All of these changes create the conditions for modelling a completely different type of family structure, one in which, in the words of Caldwell, the flows of wealth between generations go from parents to children and not the other way around. In this new family structure, children are no longer expected to work to support the family home. On the contrary, it is the parents who are expected to provide their offspring with the best quality of life and an adequate education. In this type of family structure, which is characteristic of the most developed societies, reducing the number of children provides all members of the family unit a greater degree of security and welfare (Caldwell, 1976, 1982).

We believe these paradigms allow us to identify the variety of mechanisms which have brought about the drop in the fertility rates of eastern Mediterranean Arab countries more completely than the theories previously cited. As we will see below, it offers a reasonable explanation, and one that is always consistent with the available statistical data, of why the transition towards a condition of low fertility is taking place at such different rates in different countries of the region even though the differences in their infant mortality rates and per-capita income levels are becoming smaller. It should be added that the study of the demand for human capital also explains the delay in the transition to a state of lower birth rates, a prolongation which in general has historically characterized Arab societies[19] compared to other developing areas like Latin America and Southeast Asia.

5. The effect of the increase in the supply and demand of human capital on fertility rates in Eastern Mediterranean Arab societies

Throughout this epigraph, we will show that most of the available statistics back the hypothesis that the decline in fertility rates is a result of 1) the increase in the demand for human capital in the labour market, 2) the increase in the supply of human capital resulting from education policies, and 3) the reduction of differences in gender inequalities. We will point out how the differences in the behaviour of national labour markets, levels of investment in education and the pace at which women's independence is taking place are the variables that best explain the differences observed in the start dates and the speed of the transition to a state of low birth rates in the countries of this region. We will see, in short, that according to the official available statistics, the countries which currently have the lowest birth rates are also those in which the supply and demand of human capital is greatest and where gender inequalities are not as prevalent.

Evolution of the demand for human capital in the labour market

One of the variables that is of greatest interest for measuring the level of demand for human capital in each country is the participation of women in the labour market. In this regard, it should be pointed out that, in general, the participation of working women in the "formal" environment of the economies of Arab countries is still rare, and is usually concentrated in specific sectors and highly "feminized" jobs (World Bank 2004b, 93-94, and Farzaneh and Medeiros, 2007: 17). In fact, the lag of most of these societies in the process of transition to a condition of low fertility rates compared to other developing regions like Latin America and Southeast Asia is explained, among other reasons, by their low feminine activity rates.[20]

As for the differences between the countries of the region in the percentages of female workers, they are closely related to the differences in the fertility rates. Table 8 in the appendix shows that Palestine (the

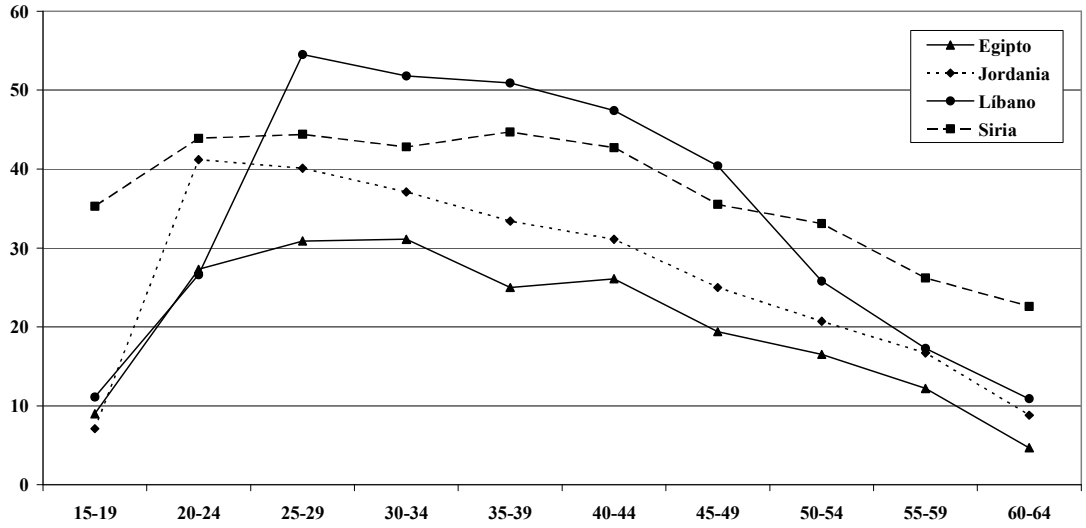
[19] Except Lebanon.

[20] This situation exists because, throughout the last few decades, there have not been enough jobs created to incorporate a growing numbers of persons, university graduates as well as people with low levels of education. This is the result of the low level of competitiveness of the economies in the region, characterized by a very low export capacity and a deficient integration of its respective markets in the process of globalization. The lack of foreign investment (owing to the aversion to investing in regions close to armed conflicts) and excessive spending on armaments and security burden the competitiveness of these economies. Moreover, they face tough competition from China and other Asian countries in sectors like the textile industry, and these countries have great potential for creating semi-skilled jobs which large segments of the female population have easy access to. Their relative dissociation from the process of globalization (compared to other developing regions) and the relative mutual isolation of their respective economies constitute an additional impediment to any investment initiative (World Bank, 2004, and ESCWA, 2001:11-19 and 21). As a result, there are far fewer job opportunities for young people, men as well as women, compared to other regions of the world. This is the situation in an era when the generations that reach the working age every year are the most numerous and the best educated in the history of these countries, not only because of their absolute size but also because, year after year, the percentage of women who look for paid work grows (ESCWA 2001b: 24-28).

country with the highest fertility rates in the region), is also the country with the lowest rates of female activity. It is just as coherent that Lebanon had female activity rates that were notably higher than those of Jordan and Egypt from 1970 to 2005, and that Jordan surpassed Egypt in the 1990s. The only case that does not correspond to the initial hypothesis is Syria's. Since 1995, this country has had the highest female activity rates in the region, yet its synthetic fertility rate has been much higher than Lebanon's, Egypt's and Jordan's.

Indeed, it is remarkable that the decline in the fertility rate has not been greater in Syria, where the participation of women in the work force is currently the highest in the region. However, we need to keep in mind that almost half the population of Syria lives in rural areas (see Table 5 in the Appendix), where the fertility rate is always higher than in urban centers, where most of the Jordanian and Lebanese population lives. As a result, almost one third of the Syrian population is employed in agriculture (see Table 6 in the Appendix), a sector in which women normally find paid work at an early age and leave at more advanced ages. This circumstance would explain why the activity rates of Syrian women under the age of 24 and over the age of 50 are much higher than for Lebanese women, while the rate of working Lebanese women between the ages of 25 and 49 is higher (see Graph 4).

Graph 4: Female activity rates by age group in 2005



Source: OIT/Laborsta/EAPEP (http://laborsta.ilo.org/data_topic_E.html)

One may then wonder why the activity rates of Egyptian women are not similar to those of Syrian women if in Egypt most of the people who live in rural areas are similar to their Syrian counterparts (see Table 5 in the Appendix). Furthermore, why aren't the rates lower than the rates for Jordanian women? According to the theory of human capital, it could be argued that Egypt as well as Jordan are in a phase in which job opportunities in traditional sectors are rapidly disappearing (something that is apparently not occurring in Syria), and these female employment niches are not being replaced as fast by others in the service sector. There is a lot of data that could support this answer. In the first place, as seen in Table 6, the proportion of women employed in agriculture is much higher in Syria than in Egypt, and it is practically residual in Jordan.[21] It is also revealing that in Syria the agricultural sector accounted for over 22% of the GDP in the year 2000, compared to 2.3% in Jordan and 16.7% in Egypt (see Table 7 in the Appendix). Another very interesting piece of data is that the percentage of companies run by women is 28% in Lebanon and 24% in Egypt, while in Syria it is only 5% (World Bank, 2007, 20-21). In our opinion, this data is proof that in Syria, despite its high rate of women in the work force, the proportion of women employed in jobs typical of a pre-industrial society is much higher than in Egypt, Lebanon or Jordan. Another very important factor is that the growth of per-capita GDP seen in Syria in the last few

[21] However, it is worth noting that, according to recent studies, female activity rates in Jordan are underestimated due to the importance of informal and seasonal work among Jordanian women, especially in agriculture. (DOS, 2007: 10).

decades has been much smaller than the growth achieved by its neighbours[22] (see Table 7 in the Appendix). The high percentage of working women in Syria compared to the situation in Jordan and Egypt[23] could be precisely because of the greater economic stagnation in that country. A high percentage of homes (especially in rural areas) need a complementary source of income in addition to the husband's salary[24]. Lastly, it should be added that the use of the Internet is also less widespread in Syria than in the other countries of the region.[25]

Because of everything noted above, we believe it can be asserted that, despite its relatively high female activity rates, Syria is a less technologically and economically dynamic society than Egypt, Lebanon or Jordan, and a country where the demand for human capital is, in all probability, significantly lower. At any rate, the absence of a perfect correspondence between the percentages of female workers and fertility rates[26] is, as we will see below, due to the critical importance that other variables have, like the supply of human capital and the level of gender inequality.

The impact of the increase in the levels of education

We will begin by analyzing the evolution of public spending on education and of the education rates in the sphere of secondary education, as they are two elements that greatly condition the supply[27] of human capital. It can be seen in Table 10 in the Appendix that, in 1970, the percentage of the GDP destined to education was greater in Egypt than in Jordan or Syria. Two and a half decades later, in 1995, Egypt was allocating the same, 4.7%, Syria went from 3.9% to 3.2%, and Jordan gradually increased its allocation from 3.8% to 8.2% of the GDP. These figures are consistent with two facts that up to now have been difficult to explain. First of all, in the 1970s, Egypt already had fertility rates lower than Syria's and Jordan's, despite having a higher infant mortality rate and a lower per-capita income. Secondly, the figures explain the very fast transition to a condition of low fertility rates undergone by the Kingdom of Jordan, which led it to overtake Egypt in 2005 and leave Syria far behind.

As for education rates in the sphere of secondary education, in Table 13 in the Appendix it can be seen again that Syria has figures considerably lower than those of Egypt, Jordan or Lebanon. It also stands out that in Jordan and Lebanon, female education rates are even higher than male education rates, which can be interpreted as an indicator that the gender differences are smaller in these countries. The case of Lebanon is remarkable, because in spite of the armed conflicts that have rocked this country and have without doubt negatively affected public spending on education, its female education rates in the sphere of secondary education have been the highest in the region.

Another way to verify the increase in the intensity of the demand for human capital is by observing the increase in the presence of women at university, which has increased significantly in all countries in the region (ESCWA, 2001b, 20-21) during the periods marked by the decline in fertility. It is also revealing to observe the notable differences between some countries and others in the distribution of female students according to type of studies. As seen in Table 15 in the Appendix, the majority of Lebanese

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[22] Which has led it to exceed Jordan's growth rate and be passed by Egypt in this respect.

[23] The interpretation of the data referring to female work activity in Egypt or Jordan must be made with some caution, as recent research has found that there is a high number of working women who do not declare themselves to be active or who work in the underground economy, and whose activity, as such, is not recorded in official statistics (DOS, 2007, 107-109). Most of the underground economy has traditionally functioned in agriculture (especially in seasonal work) in the form of unpaid family helpers. However, informal agricultural work tends to be less important that informal urban work and the galaxy of jobs associated with it (part-time workers and domestic help). The little evidence there is suggests that the women who swell the urban underground economy belong to the youngest groups with little education and come from homes composed of persons who end up leaving the country for the city (ESCWA 200:, 51, and World Bank, 2004: 108-110).

[24] Indeed, according to the Human Development Report of the UNPD (http://hdr.undp.org/es/estadisticas/datos/), the average income of women is 34% of the income of men in Syria compared to 23% in Egypt. Although this statistic can be interpreted as proof that gender differences are smaller in Syria, we believe that it is a result of the low level of salaries of Syrian men. In any case, it can be deduced from this that the extra income that Egyptian women earn through their participation in the labour market is less important for their domestic economies than the income earned by Syrian women.

[25] In accordance with the data from the Human Development Report of the UNPD, the number of Internet users per thousand inhabitants is 196 in Lebanon, 118 in Jordan, 68 in Egypt, 67 in Palestine and only 58 in Syria (http://hdr.undp.org/es/estadisticas/datos/).

[26] Actually, Syria is the only case that does not correspond to what is expected.

[27] A supply that depends to a large degree on the demand, although they do not always correspond perfectly.

women are enrolled in degree courses related to law and business, while in Syria, more than 50% do degrees in Arts and Humanities, which lead to fewer work opportunities (ESCWA, 2004: 29 and 45; World Bank, 2004: 199). As such, it is reasonable to suppose that, among a large number of Syrian women, the option of enrolling at university is related more to the desire to achieve a certain social status than to meet the demands of the labour market. As a result, we believe that the demand for human capital with a university education is greater in countries like Lebanon or Egypt than in Syria or Palestine, which is consistent with the fact that, in these latter two countries, fertility rates are higher.

Decline in gender differences[28]

The efforts to offer a higher degree of education to children and youths have, as the figures in Table 16 in the Appendix show, brought about a notable increase in the percentage of single women in all age groups, a result of a lag in the average age of the first marriage (Farzaneh and Medeiros, 2007, Fargues, 2003). We believe that the advance towards the universalization of secondary education is the primary mechanism by which the specific fertility rates of adolescents aged 15 to 19 have fallen so abruptly in all of the countries in the region, as the relationship between the education levels of adolescents, the percentages of single women and the specific fertility rates of this age group is perfect. As can be deduced from the comparison of Graph 2b and Tables 13 and 16 in the Appendix, in those countries where the education rates and percentages of single women are the highest, the fertility rates of women aged 15 to 19 are low.

The decrease in marriages at early ages—when the woman is still an adolescent—is a phenomenon that has to be interpreted as a fundamental catalyst for the decrease in gender differences. In this type of marriage, in general, the age difference between the two spouses is higher, which tends to place the woman in a position of greater subordination to and dependence on the husband, and this situation worsens when the woman does not receive a formal education (Farzaneh and Medeiros, 2007: 9, Tabutin and Schoumaker 2005: 631-632; Hoda, Magued and Farzaneh, 2005: 1-3; UNIFEM 2004, 144 and 145 and ESCWA, 2001b: 12 and 13). Although the decline in this type of union has been general in all eastern Mediterranean Arab countries, there are still significant differences between them, as Table 16 in the Appendix shows. It is worth pointing out the high percentages of single women reached in the mid-1990s by Lebanese and Jordanian women under the age of 25, in contrast to those of Syrian, Egyptian and Palestinian women. It is also remarkable that Egypt, with percentages of single women similar to those of Syria, nonetheless has lower fertility rates. One piece of data that helps to explain this circumstance is found in Table 17 in the Appendix, which shows that the use of modern contraceptives is much greater among Egyptian women than among Syrian women.

We believe that these statistics are a reflection of the increasing distancing of a growing part of the population from the values associated with early marriage. This phenomenon is especially important because it entails a profound evolution of the perception one has of what the role of the woman in society should be. It is a change that, all in all, reflects a greater balance between the value of having children[29] (marrying early to have children as soon as possible) and educating or investing in the human capital of women (Hoda, Magued and Farzaneh 2005: 3).

6. Other variables that have shaped the evolution of fertility rates in eastern Mediterranean Arab countries

Although the main objective of this article is to contrast the suitability of the three theoretical paradigms described earlier for explaining the decline in the fertility rates in eastern Mediterranean Arab countries, we feel it would not be appropriate to negate the impact that other factors unrelated to these theories have had on the demographic transition of this region. As such, in what follows, we will briefly state how economic stagnation, migratory waves, local conflicts and government policies on demographic control have impacted birth rates over the last few decades.

Migratory movements, policies on birth control and armed conflicts have had a significant effect on the evolution of fertility rates in the countries studied here (Farzaneh and Medeiros, 2007, and Tabbarah,

[28] Recent reports suggest that, despite the traditional subordination of women, the progress made in this regard by Arab countries is significant (World Bank, 2007b and 2004b, ESCWA, 2004b and 2001c, UNPD and RBAS, 2006, and UNPD, 2005).

[29] According to recent studies, 61.5% of Egyptian women declare that their ideal number of children is two or three, that is, a number typical of nuclear families (EIDHS, 2004: 24-25).

2004: 449-451). These factors have had a huge influence on shaping the situation of surprising regional heterogeneity with regard to the reproductive behaviour of these countries' populations, as they have not affected all of them the same, as we will see below.

Economic stagnation along with high levels of youth unemployment and the increasingly high cost of housing have led to people marrying and leaving home at later ages, bringing about an anomalous increase in definitive spinsterhood.[30] At the same time, they force a high number of young people to migrate to other countries. Likewise, the scarcity of available jobs has contributed to reinforcing among parents the desire to offer a better education to their children, with the goal of providing them comparative advantages in the difficult labour market they encounter once they have finished their studies. In the case of Lebanon, the very high percentages of single women older than 30, who so decisively contribute to the decline of fertility below the generational replacement level, seem to suggest the existence of serious problems for couples who want to marry. We suspect that this situation is not only the result of the process of modernization or Westernization, but also a consequence of the conflict and armed confrontations that this country has suffered throughout the last few decades, and these conflicts have condemned it to go through frequent periods of economic stagnation.[31]

Jordan has not suffered internal conflicts like Lebanon, and perhaps for this reason the percentages of single women over the age of 30 are not as high in Jordan as they are in Lebanon. However, it has suffered the consequences of the economic collapse of Iraq, one of its main business partners, and of the massive arrival of Palestinian and Iraqi refugees over the last few decades. To this one must include a change in government policy in the mid-1990s that promotes greater control of fertility and the implementation of active policies to achieve this goal. At this point, it is worth noting that the Egyptian government is the only one that, since the beginning of the 1970s, has developed active policies on demographic control, something that has undoubtedly contributed to the fact that the use of modern contraceptive methods is more widespread among Egyptian women than among women from the other countries in the region, as can be seen in Table 17 in the appendix.

As for the role played by migratory waves, it is not entirely clear whether in the context of the Mashrek countries they have contributed to accelerating or slowing down the decline in fertility. In the case of Egypt, the possibility of emigrating to other countries (mainly to Persian Gulf states), has allowed a growing number of young people to access a source of income that has made it possible for them to leave their parents' homes and establish their own. As such, the fertility of this country corresponds to the flows of remittances sent by their citizens employed abroad (Fargues, 2004: 14-15). In Palestine as well, the effect of the loss of the population is a point of controversy. It is possible that the flight of so many people[32] has convinced couples in marriages of convenience to have a number of offspring that is higher than the regional average to ensure the close presence of some of them when they reach old age. Furthermore, the decline in infant mortality does not reduce the uncertainty over how many children survive to adulthood. The continuous confrontations between part of the Palestinian population and the occupation forces of Israel make couples feel the chances of their children's survival are lower than they would be otherwise.

7. Conclusions

Of the three explanatory paradigms analyzed in this article, the theory that maintains that the transition to a condition of low fertility corresponds mainly to technological development and the increase in the demand for human capital is the one backed most solidly in the statistics analyzed. The decline of infant mortality and the increase in per-capita income do not by themselves explain the evolutions of synthetic fertility rates seen in eastern Mediterranean Arab countries.

The paradigm that emphasizes the importance of the increase in human capital offers a reasonable explanation, one backed by official statistics, for the lag that Arab countries have experienced relative to

[30] In times of prosperity, it is reasonable to expect an increase in marriages, falls in the average age at which one leaves home and increases in marital fertility, as occurred in Europe and the United States in the 1960s.

[31] Perhaps it is a good idea to remember that in Europe, too, fertility has reached low levels in countries like Spain and Italy, and not in countries which have the highest levels of per-capita income. Therefore, a fall far below the level of replacement is related to economic difficulties like unemployment and the high cost of housing.

[32] According to recent estimations, only three and a half million Palestinians, of the more than nine million at the end of 2002, live in Palestine. Jordan, with 2.7 million, and Israel, with one million, are the countries that accommodate the most Palestinians within their respective territories (Taboutin and Schoumaker, 2005: 689).

other regions of the world in beginning their transition to a condition of low fertility. It also offers a solid explanation for the existence of such marked differences in the start dates and the paces of progression between countries so geographically close like Egypt, Jordan, Lebanon, Palestine and Syria.

It could be objected that fertility in the region has fallen more than could be expected, given the still low demand for human capital in the economies of these countries. However, this criticism loses validity if in the analysis one considers the evolution of the creation of human capital (that is, the evolution of the supply) and not only the evolution of the demand. In fact, one of the most typical peculiarities of Arab countries is that the achievements in the education and training of women have been much greater than those registered in the sphere of employment alone. That is, the supply of human capital has grown much more than the demand. We believe this circumstance is due to the situation of economic stagnation which the economies of the region have undergone during much of the last two decades.

This economic stagnation, although limiting women's access to the labour market, has had the effect of reinforcing the transition to a state of low fertility. Faced with a situation of uncertainty, many couples have reacted by postponing their marriage and, consequently, the conception of their first child, reducing the number of offspring through the use of modern contraceptive methods. It has also motivated many people to migrate to other countries, a phenomenon that also limits the reproductive potential of a population.[33]

As such, there are many factors that have influenced the decline of fertility in eastern Mediterranean Arab countries. In spite of this, we are certain that the most important of all is the massive investment in the education of human capital that these societies have undertaken over the last few decades. It can be stated that the effect of the process of universalization of education on fertility has been tremendous. It has brought about an increase in the percentages of single women between the ages of 15 and 19, and these women wait to get married until they have finished their studies. This, in turn, has caused them to put off having their first child. Putting a greater value on education has also fostered the spread of the idea among married couples that it is better to have fewer but better educated children.

One final lesson that could be extracted from the analysis of the recent history of eastern Mediterranean Arab societies is that a massive investment in education can lead to spectacular declines in fertility rates, but does not guarantee economic improvement if the measure is not accompanied by others more difficult to carry out, like modernizing the productive fabric and increasing the volume of trade with other countries. In the absence of said modernization and said increase in trade, which generates more jobs and fosters growth of the demand for human capital, the result of the improvement in the training and education of the population could be an increase in unemployment and underemployment, especially among women and young people, and, as a result of this, an increase in emigration. Moreover, it can be expected that if the drastic decline in fertility rates is not accompanied by higher rates of female activity and a modernization of the productive fabric, the problems stemming from the inevitable aging of the population (ESCWA, 2007) would become a burden that could slow down the economic development of these societies for decades.

[33] Although access to a source of income makes it possible for many emigrants to leave their parents' home, the process of emancipation and the formation of one's own family would take place faster if they could find a job in their own countries.

APPENDIX

Table 1: Population in thousands

Year	Egypt	Jordan	Lebanon	Palestine	Syria
1950	21.834	472	1.443	1.005	3.536
1955	24.692	665	1.613	1.042	3.991
1960	27.840	896	1.888	1.101	4.621
1965	31.563	1.106	2.184	1.199	5.399
1970	35.190	1.623	2.443	1.096	6.371
1975	39.174	1.937	2.737	1.255	7.537
1980	43.674	2.225	2.785	1.476	8.971
1985	49.186	2.706	2.891	1.783	10.815
1990	55.137	3.254	2.974	2.154	12.721
1995	60.648	4.304	3.491	2.617	14.610
2000	66.529	4.799	3.772	3.149	16.511
2005	72.850	5.544	4.011	3.762	18.894
Increment in %	**233,7**	**1074,6**	**178,0**	**274,3**	**434,3**

Source: United Nations Department of Economic and Social Affairs / Population Division / World Populations Prospects / The 2006 Revision (http://esa.un.org/unpp)

Table 2: Average yearly growth rates (%)

Period	Egypt	Jordan	Lebanon	Palestine	Syria
1970-75	2,2	3,5	2,3	2,7	3,3
1975-80	2,2	2,8	0,1	3,2	3,5
1980-85	2,5	3,9	0,7	3,8	3,8
1985-90	2,3	3,7	-0,4	3,8	3,4
1990-95	1,9	5,5	2,9	3,8	2,8
1995-00	1,9	3,0	1,3	3,8	2,6
2000-05	1,9	2,7	1,0	3,2	2,5

Source: United Nations Department of Economic and Social Affairs / Population Division / Country Profiles

Table 3: Indicators of mortality

Country	Mortality rates of population of 0 to 4 years*		Probability of not surviving to the age of 40**	Life expectancy at birth***			
				Females		Males	
	1970	**2005**	**2000-05**	**1970-75**	**2000-05**	**1970-75**	**2000-05**
Egypt	235	33	7,5	53,4	71,8	50,8	67,5
Jordan	107	26	6,4	58,3	72,8	54,9	69,8
Lebanon	54	30	6,3	68,6	74	64,3	69,7
Palestine	..	15	5,2	58,3	73,9	54,9	70,8
Syria	123	23	4,3	59,2	74,9	55,7	71,4

**Nº of deceased per 1.000 born alive*

*** In % of each cohort*

Source: UNDP Human Development Reports (http://hdr.undp.org/es/estadisticas/datos)

**** Source: United Nations Department of Economic and Social Affairs / Population Division / Country profiles*

Table 4: Percentage of population of 15 to 59 years									
Country	**1970**	**1975**	**1980**	**1985**	**1990**	**1995**	**2000**	**2005**	**Variation**
Egypt	51,9	52,7	52,5	52,2	52,8	54,7	57,2	59,3	**7,4**
Jordan	49,4	48,5	46,0	47,8	48,4	54,8	56,1	57,7	**8,3**
Lebanon	50,1	52,4	54,5	55,2	56,0	58,0	59,3	61,1	**11,0**
Palestine	49,9	49,0	47,4	48,0	48,2	48,5	48,6	50,0	**0,1**
Syria	47,5	47,1	46,6	46,4	47,7	51,1	55,2	58,4	**10,9**
Source: United Nations Department of Economic and Social Affairs / Population Division / Country Profiles									

Table 5: Percentage of urban population								
Country	**1970**	**1975**	**1980**	**1985**	**1990**	**1995**	**2000**	**2005**
Egypt	42,2	43,5	43,8	43,9	43,4	42,8	42,1	42,3
Jordan	56,0	57,8	60,2	66,4	72,2	78,3	78,7	79,3
Lebanon	59,4	67,0	73,7	79,4	83,2	85,0	86,6	88,0
Palestine	54,3	59,6	61,8	63,9	66,0	68,0	70,0	71,9
Syria	43,3	45,1	46,7	47,9	48,9	49,8	50,1	50,3
Source: World Population Policies, 2005 Population Division of the United Nations (pp.199-414)								

Table 6: Active population by branch of the economy						
Country	**Period**	**Branch**			**% of people employed in the agriculture by sex**	
		Agriculture	**Industry**	**Services**	**Females**	**Males**
Egypt	**1970**	61,2	13,2	25,6	..	..
	1980	57,1	15,7	27,2	..	..
	1990	40,3	21,5	38,2	..	..
	1996-2005*	30,0	20,0	50,0	39,0	28,0
Jordan	**1970**	33,2	24,0	42,8	..	..
	1980	17,8	23,7	58,5	..	..
	1990	15,3	23,5	61,3	..	..
	1996-2005*	4,0	22,0	74,0	2,0	4,0
Lebanon	**1970**	19,8	25,2	55,0	..	..
	1980	14,3	27,3	58,4	..	..
	1990	7,3	31,0	61,7	..	..
	1996-2005*	..	..	..	..	..
Palestine	**1970**	..	..	..	..	..
	1980	..	..	..	..	..
	1990	..	..	..	..	..
	1996-2005*	16,0	25,0	58,0	34,0	12,0
Syria	**1970**	56,5	18,1	25,5	..	..
	1980	38,7	28,1	33,2	..	..
	1990	33,1	24	42,9	..	..
	1996-2005*	30,0	27,0	43,0	58,0	24,0
Source: United Nations Department of Economic and Social Affairs / Population Division PRED Bank 4.0 Country Profiles						
** Source: UNDP Human Development Reports (http://hdr.undp.org/es/estadisticas/datos)*						

Table 7: Gross Domestic Product				
Country and year	GDP per cápita PPP (1995$)	GDP by branch of activity		
		Agriculture	Industry	Services
Egypt (1975)	1.424	29,0	26,9	44,1
Egypt (2000)	3.253	16,7	33,1	50,2
Egypt (2005)*	4.337*	..	..	..
Jordan (1975)	2.254	7,9	23,7	68,4
Jordan (2000)	3.597	2,3	25,3	72,4
Jordan (2005)*	5.530*	..	..	..
Lebanon (1995)	3.776	12,6	26,9	60,5
Lebanon (2000)	3.866	11,9	22	66,1
Lebanon (2005)*	5.584*	..	..	..
Palestine (1995)	..	14,1	27,2	58,7
Palestine (2000)	..	7,6	22,6	69,9
Palestine (2008)**	2.900 **	8,0	13,0	79,0
Syria (1975)	2.164	17,8	24,4	57,8
Syria (2000)	3.067	22,7	28,5	48,9
Syria (2005)*	3.808*	..	..	..
Source: United Nations Department of Economic and Social Affairs / Population Division PRED Bank 4.0 Country Profiles				
** Source: UNDP Human Development Reports (http://hdr.undp.org/es/estadisticas/datos) *PIB per cápita PPP (2005$)*				
***The CIA World Fact Book (https://www.cia.gov/library/publications/the-world-factbook) **PIB per cápita PPP (2008$)*				

Table 8: Activity rates of females of 15 years and older (in %)						
Country	**1980**	**1985**	**1990**	**1995**	**2000**	**2005**
Egypt	17,2	22,8	26,5	21,2	20,0	20,1
Jordan	16,0	17,7	17,7	23,4	24,9	27,5
Lebanon	28,7	31,4	31,8	29,0	30,4	32,4
Palestine	9,4	9,4	9,2	10,3	10,3	10,3
Syria	23,8	24,9	28,6	32,7	35,1	38,5
Source: OIT / Laborsta / EAPEP (http://laborsta.ilo.org/data_topic_E.html)						

Table 9: Unemployment rates by sex										
	Egypt*		Jordan**		Lebanon**		Palestine*		Syria*	
Year	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1975	..	..	..	..	..	..	..	..	5,5	2,1
1980	3,9	19,2	..	..	..	..	..	..	3,8	3,8
1984	4,8	11,4	..	..	..	..	..	..	4,1	8,2
1990	5,2	17,9	..	..	..	..	..	..	5,2	14
1995	7,6	24,1	..	..	8,6	7,2	24,5	19,6	..	..
2000	5,1	22,7	..	..	..	..	14,4	12,3	8	23,9
2005	7,1	24,3	12,3	19,2	..	..	23,6	22,1	7,6	20,9
** Source: OIT LABORSTA Labour Statistics Database (http://laborsta.ilo.org/data_topic_E.html)*										
**Data from Syria corresponds to the years 1975, 1979, 1984, 1991, 2001 y 2003 and data from Palestine to the years 1996, 2000 y 2005*										
*** Source, ESCWA (2005b: p.69) en http://www.escwa.un.org/information/publications/edit/upload/sdd-05-5-e.pdf.*										
***Los datos de Jordania corresponden al año 2004 y los del Líbano a 1997*										

Table 10: Public expenditure on education (% of GDP)							
Country	**1970**	**1975**	**1980**	**1985**	**1990**	**1995**	**2000**
Egipto	4,7	5,0	..	5,7	3,9	4,7	..
Jordania	3,8	3,8	6,8	6,8	8,1	8,2	..
Líbano	..	..	..	..	..	2,7	3,0
Siria	3,9	4,0	4,6	6,1	4,0	3,2	..
Source: United Nations Department of Economic and Social Affairs/ Population Division PRED Bank 4.0 Country Profiles							

Table 11: Literacy rates								
	Males				**Females**			
Year	**Egypt**	**Jordan**	**Lebanon**	**Syria**	**Egypt**	**Jordan**	**Lebanon**	**Syria**
1970	46,4	72,3	75,9	60,7	16,8	36,8	50,8	21,0
1975	50,1	78,0	79,9	67,4	20,5	45,7	57,3	27,2
1980	53,7	82,2	82,7	72,2	24,7	55,4	62,9	33,8
1985	57,2	85,9	85,5	77,6	29,1	64,4	68,2	40,8
1990	60,4	90,0	88,3	81,8	33,6	72,1	73,1	47,5
1995	63,5	93,1	90,4	85,4	38,5	79,4	76,9	54,1
2000	66,6	94,9	92,1	88,3	43,8	84,3	80,0	60,4
2006*	83,3	96,3	..	89,3	59,7	88,8	..	75,7
Source: United Nations Department of Economic and Social Affairs/ Population Division PRED Bank 4.0 Country Profiles								
** Source: UNESCO Institute for Statistics*								

Table 12: Enrolment rates in primary education								
	Males				**Females**			
Year	**Egypt**	**Jordan**	**Lebanon**	**Syria**	**Egypt**	**Jordan**	**Lebanon**	**Syria**
1970	81,4	78,8	130,6	94,6	52,8	64,9	111,8	58,9
1975	83,3	91,2	..	111,8	55,7	81,7	..	78,3
1980	84,4	82,0	..	111,0	61,0	81,2	..	87,7
1985	93,9	71,5	..	116,7	76,2	72,2	..	102,3
1990	101,4	70,7	122,7	114,2	85,8	71,1	117,0	102,3
1995	106,2	70,9	110,9	105,9	91,1	71,8	107,7	95,5
2000	100,0	..	104,2	112,4	93,1	..	100,7	104,7
2006*	107,0	96,0	96,0	129,0	100,0	98,0	93,0	123,0
Source: United Nations Department of Economic and Social Affairs/ Population Division PRED Bank 4.0 Country Profiles								
** Source: UNESCO Institute for Statistics*								

Table 13: Enrolment rates in secondary education								
	Males				**Females**			
Year	**Egypt**	**Jordan**	**Lebanon**	**Syria**	**Egypt**	**Jordan**	**Lebanon**	**Syria**
1970	37,8	41,3	49,2	53,9	18,7	23,4	33,5	20,8
1975	51,1	54,8	47,2	56,6	28,6	39,8	46,5	28,1
1980	61,3	61,7	61,2	56,9	38,8	56,1	57,0	35,1
1985	71,6	50,4	61,2	68,3	50,4	54,3	60,0	47,5
1990	83,8	43,7	70,5	59,8	68,1	45,6	75,5	43,7
1995	82,2	53,3	77,0	46,4	70,5	57,4	84,3	40,1
2000	88,1	..	71,9	45,1	82,4	..	79,3	40,4
2006*	90,0	88,0	78,0	71,0	84,0	90,0	85,0	68,0
Source: United Nations Department of Economic and Social Affairs/ Population Division PRED Bank 4.0 Country Profiles								
** Source: UNESCO Institute for Statistics*								

Table 14: Number of university students and percentages of females							
Country		**98/99**	**99/00**	**00/01**	**01/02**	**02/03**	**Variation**
Egypt	**Total**	1.351.173	1.354.204	1.391.203	1.494.650	1.552.622	14,9%
	Females	43,9%	44,4%	45,5%	45,5%	46,5%	+2,6
Jordan	**Total**	96.949	105.813	118.657	135.087	153.333	58,2%
	Females	46,1%	47,9%	49,2%	49,8%	49,5%	+3,4
Lebanon	**Total**	101.440	103.869	119.487	124.730	144.050	42,0%
	Females	51,6%	53,2%	53,5%	54,7%	54,0%	+2,4
Syria	**Total**	151.369	155.137	172.853	190.750	201.689	33,2%
	Females	43,7%	43,5%	45,0%	46,1%	47,0%	+3,3
Palestine	**Total**	60.846	66.050	75.579	83.617	104.567	71,9%
	Females	44,9%	46,0%	46,8%	47,5%	49,5%	+4,6
Source: Statistical Abstract of the ESCWA Region, 2005 (pp.46-51)							

Table 15: Percentages of university students by field of studies during the academic year of 2002/03										
Field of studies	**Females**					**Males**				
	Egypt	**Jordan**	**Lebanon**	**Palestine**	**Syria**	**Egypt**	**Jordan**	**Lebanon**	**Palestine**	**Syria**
Education	19,6	25,0	4,8	31,5	11,2	11,6	7,2	0,4	12,8	3,0
Arts and Humanities	32,8	22,7	25,8	21,4	51,1	24,8	11,2	11,7	13,1	28,4
Bussiness and Law	28,7	19,5	40,4	19,9	13,1	38,2	33,6	36,6	37,7	26,5
Sciences	4,0	15,6	12,6	10,7	8,4	3,8	19,6	20,7	11,1	11,2
Engeniering	2,6	5,9	4,6	5,5	7,0	11,3	17,2	19,7	9,9	16,5
Agriculture	2,6	2,5	0,4	0,2	3,4	3,0	1,8	0,5	0,8	5,4
Health care	9,2	8,6	9,2	10,6	5,8	6,5	9,2	6,2	14,2	9,1
Others	0,6	0,3	2,2	0,2	0,0	0,8	0,2	4,3	0,5	0,0
Total	100	100	100	100	100	100	100	100	100	100
Source: Statistical Abstract of the ESCWA Region, 2005 (pp.23-61)										

Table 16: Percentages of single women by age group										
	Egypt		**Jordan**		**Lebanon**		**Syria**		**West Bank**	**Gaza**
Age group	**1980**	**1995**	**1979**	**1997**	**1970**	**1997***	**1981**	**1994**	**1997**	**1997**
15-19	77,5	85,7	77,2	91,8	86,8	94,4	75,1	82,2	78,9	69,8
20-24	35,1	41,9	33,6	61,2	50,9	74,4	35,5	47,5	40,0	27,6
25-29	13,7	13,4	12,8	33,8	25,1	49,7	15,6	24,2	23,0	14,2
30-34	3,6	5,1	6,2	19,3	14,2	30,5	8,2	12,9	19,0	11,6
35-39	2,1	2,6	3,7	10,2	10,1	21,2	5,0	7,4	13,6	8,8
Source: US Census Bureau/International Data Base (http://www.census.gov/ipc/www/idb/)										
** Source: National Survey of Household Living Conditions 2004*										

Table 17: Percentages of married women who declare to use modern contraceptives

Year	Egypt	Jordan	Lebanon	Palestine	Syria
1975	22	17	23	..	15
1985	29	22	..	..	..
1995	46	27	37	31*	28
2000*	53*	..	45*	..	35*
2005	57	41	..	..	..
2007**	60**	56**	..	..	40**

Source: United Nations Department of Economic and Social Affairs/Population Division/ World Population Policies 2005
** Source: Taboutin y Schoumaker, 2005: 709*
*** Source: The Global Gender Gap Report 2007(http://www.weforum.org/pdf/gendergap/report2007.pdf)*

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