Labor Market Conditions in Jordan, 1995-2006:

An Analysis of Microdata Sources

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Foreword

The labor market in Jordan features some intriguing anomalies, the main ones of which include:

- Jordan imports hundreds of thousands of low educated, unskilled workers and yet has a large pool of unemployed with similar qualifications.
- The number of female students is close to or exceeds the number of males in almost all levels of education, and yet Jordan has one of the lowest female participation rates in the world.
- Jordan has enjoyed a high and consecutive GDP growth in the last five years but its unemployment rate persists at 14% annually, despite the fact that the demand for labor has been dynamic with the pressure for workers moving from one sector to another and from one occupation to another from year to year.

Apart from the above anomalies, there are other labor market features that must be highlighted.

The Jordanian labor market is in the middle of a child boom, with the largest five-year age cohort being the10-14 year olds. This bulge will reach the working age over the next decade, and by 2011 the youth bulge will be centered at age 18. This trend will definitely increase the pressure on university and college places, and on jobs, housing, and training facilities. Given that the quality of those new entrants to the labor market is likely to be higher than that of their predecessors, their expectations will also be higher.

Two unexpected trends are impacting the labor market in Jordan. First, there is a growing tendency for young Jordanian males to end their schooling at the end of their secondary education instead of continuing on to higher education. Just under sixty percent of employed male youth (15-29) in 2006 had only basic or elementary education, up from 50% in 1995. The second largest group of male entrants is made up of those with secondary education, about 20% in 2006. Secondly, there is a pronounced and apparently accelerating decline in male participation rates at relatively early ages, a trend that does not conform to international experience.

Human Resources Development is at the top of the national agenda in Jordan. Major reforms of general and higher education started several years ago and a new reform program will start soon in employment and the Technical and Vocational Education and Training sectors. Jordan realizes that the competitiveness of its human resources is the gateway to the world of the Direct Foreign Investment and the solution to the economic and social changes the country faces.

This study is one of a series that the Al Manar project at NCHRD has produced that tackle the major challenges confronting HRD. As with the other studies, this one will be disseminated widely and shared with policy makers throughout the nation. Special thanks are due to the two researchers, Dr. Raugi Assaad and Ms Mona Amer, for their distinguished expertise, analytical skills and dedication in producing this study.

Dr. Nader Mryyan,

Al Manar's Director.

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Executive Summary

This report uses existing statistical data sources in Jordan to examine developments in labor supply, labor demand, and wages in the Jordanian labor market over the 1995-2006 period. With the exception of one or two years, the period under consideration has been characterized by rising growth rates of GDP, which reached 7.5 percent per annum in 2004. Despite this healthy growth outlook, unemployment remained persistently high at around 14 percent and real wages remained fairly constant for Jordanians in the private sector and fluctuated in the public sector. This report will try to elucidate these trends by examining trends in labor supply and demand over the 1995-2006 period.

On the labor supply side, Jordan's working age population has been growing quite rapidly at about 3.2 percent per annum and is about to grow even faster as the youth bulge generation now centered at around age 13 enters working age in the next decade. Those currently entering the Jordanian labor market are not only more numerous, but also more educated. After a period of relative stagnation in the average years of schooling at about 11 years of schooling per person, mean years of schooling for those born since 1978 are beginning to climb again, especially among young women. Because education tends to raise a new entrant's labor market expectations in terms of job quality and stability, increased education has led to lengthier job search and, in turn contributed to the persistence of high unemployment rates.

Despite rapid growth of the working age population, the growth of the labor force itself has been somewhat attenuated in recent years by falling participation rates among both males and females. In particular, there is a noticeable downward trend in participation among males older than forty years of age, especially in rural areas. With rising rates of educational attainment, female participation rates would have been expected to increase, but lower participation among educated females who are no longer able to obtain government employment has put a lid on the growth of female participation. There is some evidence that young Jordanian males are increasingly more likely to end their schooling at age 18, at the end of the secondary stage, rather than continue onto university. At the same time, young women seem to be pursuing post-secondary education at higher rates. The rate at which young women remain in higher education through age 21 is also rising more rapidly than for young men, suggesting a decline in two-year post-secondary degrees for women in favor of four-year degrees. As a result of these opposing trends by gender, the distribution of young male new entrants by educational level has changed very little in recent years, with nearly 60 percent having only a basic education and 20 percent a secondary education. In contrast, the distribution of young female new entrants shows a significant rise in the proportion of those with university education as well as those with basic education, and a decline in those with intermediate post-secondary diplomas.

The Jordanian labor supply has been supplemented in important ways in recent years by a growing flow of foreigners into the country. Although stock of foreign workers is not fully captured by existing statistical sources, we made an attempt to estimate the stock of foreign workers in Jordan by combining data from the 1994 and 2004 population censuses with data from the foreign worker

registration system. We thus estimate the number of foreign workers in Jordan to be approximately 300 thousand workers in 2006. This figure excludes most of the Iraqi refugees who arrived in Jordan since 2004 who may be working. A recent report by Fafo and UNFPA estimates the number of Iraqis in Jordan in May 2007 at 450-500 thousand.

Reflecting the more rapid rates of economic growth, employment growth accelerated significantly in the 2002-2006 period in Jordan as compared to the 1999-2002 period. Nevertheless, Jordanian workers benefited only partially from this acceleration of growth, due to the large influx of foreign workers that occurred during this period to meet the increased demand. Although the growth of overall employment in Jordan increased from 2.1 percent p.a. in 1999-2002 to 5.2 percent p.a. in 2002-2006, employment growth among Jordanians was much lower at 1.6 percent p.a. and 2.8 percent p.a., respectively. Of the 22 thousand jobs created by the economy, on average, in the 1999-2002 period, 37 percent went to non-Jordanians. With the acceleration of job growth to 55 thousand jobs p.a. in the 2002-2006 period, more than half the job growth (53%) went to foreign workers. The growing role of foreign labor in the Jordanian economy probably explains the declining share of private sector employment among Jordanians. That share had risen from 1999 to 2001, but the trend was reversed thereafter. The Jordanian private sector continued to grow, but was increasingly relying on foreign workers to meet its labor needs.

Trends in labor demand by establishment size show that the share of micro enterprise in total employment has risen from 2000 to 2003 and that of large enterprises (50+ workers) has declined. Besides micro enterprise, another enterprise segment that has grown rapidly is medium enterprises with 20 to 49 workers.

Economic growth in Jordan in the 1999-2002 period was concentrated in manufacturing, construction, trade, and finance and insurance. Accordingly, employment in these industries grew faster than average during this period. In the 2002-2006 period, value added growth in manufacturing and construction slowed a little, but were still growing faster than average, trade speeded up and the tourism industry, as represented by restaurants and hotels, made a significant recovery after a period of sharp decline. Significant accelerations of value added growth during this period were also observed in transport, storage and communications and in real estate and business services. The 2002-2006 pattern of growth resulted in rapid employment growth in agriculture, mining, utilities, construction, restaurants and hotels, finance and insurance, public administration and domestic service. However, Jordanians managed to capitalize on the growth of only a subset of these industries, and there was large-scale substitution of foreign workers for Jordanians in other industries. The employment of Jordanians grew in public utilities, restaurants and hotels, finance and insurance and public administration, whereas the increased demand for labor was met by foreign workers in agriculture, mining, construction, and domestic service.

On the occupational front, the largest category in 1999 – craft and related workers – maintained its share of total employment at about 18 percent, but was overtaken by elementary occupations, which increased its share from 17 percent in 1999 to 25 percent in 2006. Professionals, the third largest category, expanded from 11.5 percent in 1999 to 16 percent in 2006. The category experiencing the greatest relative decline is agricultural workers, which now constitutes less than 4 percent of total employment. Among women the largest category – professionals – increased from

28 percent of employment in 1999 to 45 percent in 2006. This was at the expense of the second largest category – technicians and associated professionals – which declined from 35 percent to 27 percent. The evolution of the occupational pattern of labor demand in Jordan is thus increasingly skewed toward professionals, and away from agricultural work. A similar contrast exists between domestic and foreign workers on the occupational front as with economic activity. Domestic workers benefited from the growth in demand for professionals whereas the increased demand for unskilled workers in elementary occupations was essentially met by increased reliance on foreign labor.

A comparison of labor market indicators across the 2003 and 2005 EUS and the 2004 Population census reveals considerable similarity in terms of the measurement of the employed population, but significant divergence in the measurement of unemployment. In our judgment, the lower estimate of unemployment provided by the EUS is more reliable. Unemployment is a complex concept requiring several criteria to be met for a person to be considered unemployed according to international definitions, as opposed to simply not working. It is usually difficult to correctly apply these criteria in a very large-scale data collection operation such as the census, leading to the possible overestimation of unemployment.

Finally, the report tackles the evolution of wages in the Jordanian economy. The main conclusions from the analysis of wage trends is that private sector wages rose slightly faster than wages in the public sector in the previous decade, although they still remain lower on average. Wages for foreign nationals in the private sector rose even faster although they started at an even lower base. Wages for men in the private sector rose faster than for women, but the difference in trends was not large. The largest increase in wages in the 1994-98 period occurred in the health and social services industry, followed by mining and quarrying, and restaurant and hotels. In the 2000-03 period, the largest increases were in restaurants and hotels, other community, personal and social services, transport storage and communications, and construction. In terms of occupations, wages rose the most among senior officials and elementary occupations in 1994-98 and among services and sales workers and elementary occupations in 2000-03. The wage increases among elementary occupations reflects the increased demand for this type of unskilled work during the 1999-2006 period. However, the increased employment of professionals was not accompanied by significant increases in wages probably because it was accompanied by increased supply as well. Overall, the observed wage trends underscore the dynamism of Jordan's service economy, especially the tourism sector, in recent years.

Introduction

This report uses existing statistical data sources in Jordan to examine developments in labor supply, labor demand, and wages in the Jordanian labor market over the 1995-2006 period. It comes at the heels of a major World Bank report on the Jordanian labor market (World Bank 2007), which has identified a major paradox in the Jordanian economy, namely the co-existence of high economic growth and persistently high unemployment. Despite the fact that Jordan's GDP growth rate has averaged 7.2 percent per annum from 2002 to 2006, Jordan's unemployment rate has remained persistently high at around 14-15 percent. The World Bank report attributes this paradox to the existence of three mismatches in the Jordanian labor market, namely geography, employability, and expectations in the context of a fairly open labor market where employers can easily meet their employment needs by hiring foreign workers. In this context, the low opinion of employers of the employability of Jordanian workers, including their willingness to work hard, put in long hours, and be flexible, collides with the high expectations of Jordanian youth whose increasing levels of education lead them to expect well-paying desk jobs, close to home. The high unemployment rate is compounded by a high non-participation rate by international standard, even among prime age men, whose rates of non-participation in the labor market have been increasing in recent years.

Although this report will attempt to shed light on trends in labor supply and demand in the Jordanian economy over the previous decade, unemployment is not covered extensively because it has already been covered in depth in other studies (See for instance ETF 2005 and World Bank 2007). However, we do compare the results of the 2004 Population Census and the Employment and Unemployment Surveys (EUS) of 2003 and 2005 with regards to labor force participation rates and unemployment rates.

Despite the fairly open nature of the Jordanian labor market, Jordanian labor statistics do a poor job capturing the inflows of foreign workers and the outflow of Jordanian workers abroad. Neither the household-based Employment and Unemployment Survey (EUS) nor the establishment-based Employment Survey (ES) are able to capture the size and characteristics of foreign workers working in Jordan. Based on administrative sources, the World Bank estimates the number of foreign workers in Jordan to be somewhere between the officially registered 250 thousand workers in 2005 and 300 thousand, but also cites a high unofficial estimate of 600 thousand (World Bank 2007, p. 4). The Employment and Unemployment Survey of 2006 puts the total number of foreigners in Jordan at 546 thousand, of whom approximately 40 percent, or 215 thousand, are working. They thus constitute, according to this estimate, approximately 18 percent of the Jordanian labor force. These figures become even less certain in the context of the large inflow of Iraqi refugees into Jordan in recent years. The important role of foreign labor in the Jordanian economy is even more apparent when one considers the proportion of new job creation taken up by foreign workers. The World Bank report estimates that of the 49,000 new jobs created per year, on average, from 2001 to 2005, 58 percent went to non-Jordanians (World Bank 2007, p ii). Thus Jordan's increasing reliance on foreign workers to meet its labor needs is coming at a time of a rapidly growing working age population that is, however, less engaged in employment due to increasing unemployment and declining participation rates.

The report consists of four chapters. Chapter 1 examines labor supply issues in Jordan, including demographic trends, labor force participation and the educational and age compositions of the labor force. Chapter 2 examines labor demand trends in Jordan including the compositional shifts in the economy in terms of sector of ownership, establishment size distributions, sector of economic activity, and occupation. Chapter 3 compares the results of the 2004 Population Census and the EUS for 2003 and 2005 with regards to labor force participation, employment and unemployment. Chapter 4 assesses wage trends in the Jordanian economy by constructing wage indices by sector of ownership, economic activity, and occupation.

Chapter 1: Labor Force Participation and Characteristics of Labor Supply in Jordan: 1995-2006

1.1 Introduction

This chapter analyzes the main characteristics of labor supply in Jordan and its evolution during the last decade (1995-2006). It is based on the micro data of the annual Employment and Unemployment Surveys (EUS) carried out by the Jordanian Department of Statistics (DOS).

Jordan's working age population is growing quite rapidly and is on the verge of growing even more rapidly as the large "youth bulge" generation makes its way to the labor market over the next decade. The largest cohort of Jordanians in 2006 was centered around the age of 12-13. This cohort will lead to unprecedented growth of the domestic working age population over the next decade. The younger cohorts are getting smaller in both relative and absolute terms, reflecting the decline in fertility that has occurred in Jordan in recent years. Those currently entering the labor market in Jordan are not only more numerous relative to previous cohorts, but are also more educated. After a period of relative stagnation in the average years of schooling at about 11 years for Jordanians born from 1965 to 1978, mean years of schooling are starting to increase again for those born since 1978, especially among Jordanian women.

Although the working age population in Jordan is growing fairly rapidly, the growth of the labor force has been attenuated in recent years by falling participation rates, among both males and females. While female participation rates are increasing in rural areas from their very low initial levels, there is a significant trend of declining participation among prime-working age and older males in rural areas, particularly among those with lower levels of education. Although participation rates increase with education for females, participation rates among educated females are declining over time, countering the compositional effect of increased education on participation. The declining participation trend among educated females can probably be attributed to the reduction in work opportunities in the government, which has traditionally been the primary source of employment for educated women.

This chapter is divided into three additional sections. The first briefly presents how the EUS data have been prepared in order to create a common data file for the period of analysis (1995-2006). The second section examines the Jordanian demographic trends focusing on the evolution of the population by age group and educational attainment over time by gender and urban/rural location. It also discusses the size and geographic distribution of the foreign population in Jordan. The evolution of the labor force and its composition by gender, urban/rural, age group and educational attainment are presented in the third section.

1.2 Data Preparation

This chapter is based on the pooled annual data of the Employment and Unemployment Surveys (EUS) collected by the Jordanian Department of Statistics from 1995 to 2006. EUS 2004 is excluded from the analysis as it was carried out the same year as the population census and appears not to be comparable with the other years of the survey.

Scope of the surveys

The EUS is a household survey that gathers information on individual social characteristics (gender, age, marital status, relation to the head of household, nationality, educational attainment) and detailed information on the individual employment status (employment, unemployment, inactivity). For those who are currently employed, the economic activity, economic sector and occupation are given. For those not working, but desiring to work, the survey collects information on search methods and duration of unemployment spells. The reason for being out of the labor force (retired, studying, other reasons) is also provided.

Creation of a common data file

All EUS micro data were appended in one data file using a common and unique individual identification code that is based on the survey year and round, the household geographical location (governorate, district, sub district...) and the individual code within each household. The definition of variables and codes were checked and were given a unique name for all years. A list of the common variables in each round of the survey is shown in Annex 29.

Accounting for the Undercounting of Non-Jordanians in the EUS

The EUS is known to understate the number of non-Jordanian workers as compared to the Ministry's of Labor national registration system for foreign workers and to the Population Census. To correct for this underestimation, we derive a set of separate weights for five nationality groups derived from the 1994 and 2004 population censuses and, in the case of some nationalities, from the national foreign worker registration system. The six nationality groups for which separate weights are computed are Jordanians, Egyptians, Syrians, Iraqis, other Arabs, and non-Arabs. The annual weights are based on extrapolations of the population of each of these nationality groups from 1994 to 2004 and a projection to 2006, keeping each group's growth rate constant. The figures for the total number of workers obtained using this method were lower than those registered in the national foreign worker registration system for Egyptians from 2000 to 2006 and for non-Arabs from 2004 to 2006. In those two cases, we took the higher figure of registered workers and the population of Egyptian and non-Arabs was estimated using the employment to population ratio for Egyptians and non-Arabs derived from the EUS. This method allowed us to derive a set of population estimates for each of the non-Jordanian groups. These were combined with annual Population estimates for Jordanians provided by the Department of Statistics to obtain appropriate weights for the six nationality groups. These figures understate the number of Iraqis in Jordan in 2005 and 2006 by a wide margin, since the major inflow of Iraqi refugees to Jordan was not fully captured by the 2004 population census. A recent report by Fafo and UNFPA estimates the number of Iraqi residents in Jordan as of May 2007 at between 450,000 and 500,000 (Fafo and UNFPA 2007). Although we discuss the implications of the findings of this report in the sequel, we refrained from changing the figures we provide for non-Jordanians to match these estimates.

1.3 Demographic Trend

1.3.1 Population trend

According to the population estimates provided by the Department of Statistics, the Jordanian population grew from 3.9 million in 1995 to 5.1 million in 2006, an average rate of growth of 2.4 percent per annum (See Annex Table 1). Based on the methodology we describe above, we estimate that the non-Jordanian population residing in Jordan grew from 0.32 million in 1995 to 0.69 million in 2006, an annual rate of growth of 7 percent per annum. The fastest rates of growth were among Egyptians and non-Arabs, who each grew at about 10 percent per annum, on average (See Annex Table 3). These estimates do not include the influx of large numbers of Iraqis refugees in Jordan following the invasion of Iraq in 2003. As mentioned above, Fafo/UNFPA place the number of Iraqis in Jordan in May 2007 at 450 to 500 thousand.

As shown in Figure 1.1, the distribution of Jordanians by governorate shows that they are concentrated in three governorates where 70% of total Jordanian population resided in 2006. These are: Amman (37.2%), Irbid (18.2%) and Zarqa (15.0%). There was almost no change in the geographical distribution of the population by governorate over the period 1995-2006.

Figure 1.1

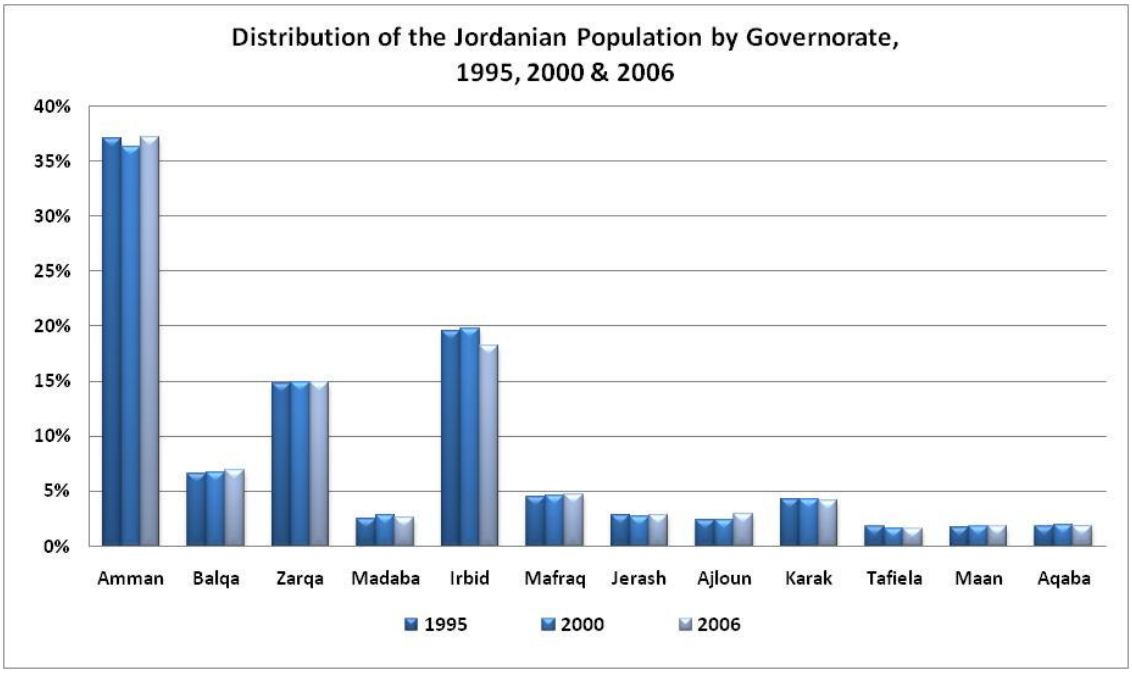
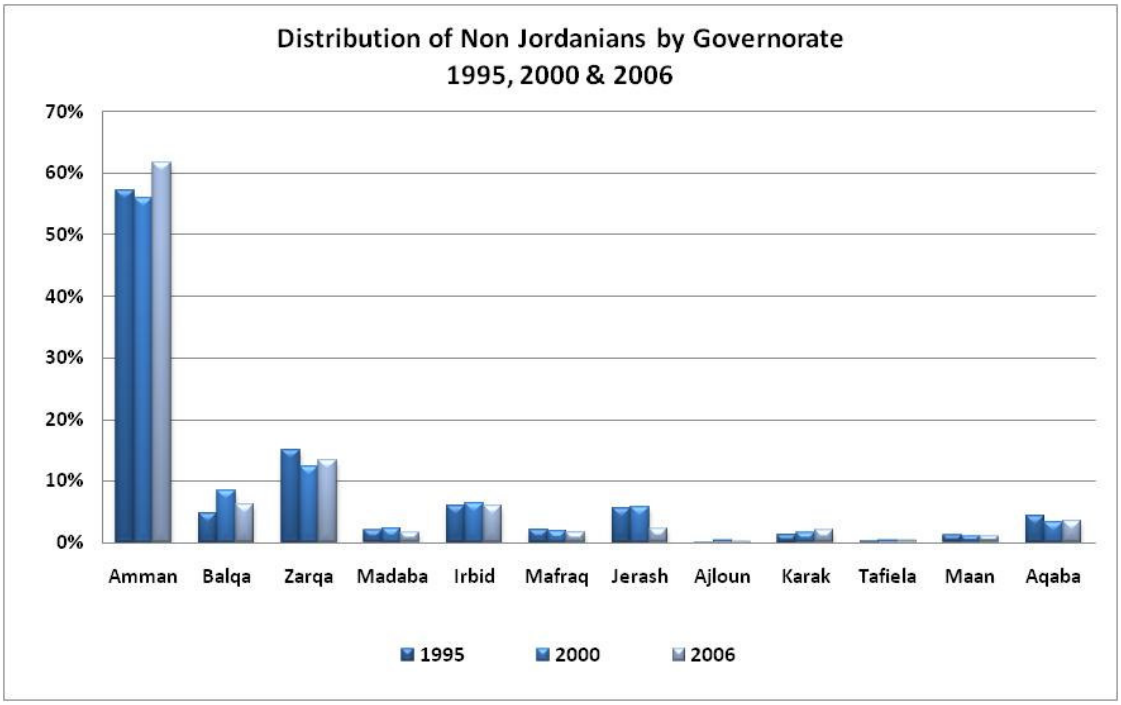


Figure 1.2 presents the geographical distribution of foreigners in 1995, 2000 and 2006. It reveals that foreigners are even more concentrated geographically than Jordanians. In 2006, Amman by itself had almost the two-thirds and Zarqa an additional 13.5%. Over the period 1995-2006, the proportion of foreigners residing in Amman went up from 57.3% to 61.7%, while it sharply declined in Jerash governorate (from 5.6% to 2.2%). It remained stable in other regions.

Figure 1.2



The distribution of foreigners by nationality, based on the estimates we undertook as described above, is shown in Figure 1.3. Putting aside the possible underestimation of Iraqis, Egyptians are the most numerous, followed by other Arabs, and non-Arabs. We estimate that there are now over 350 thousand Egyptians in Jordan in 2006, 139 thousand other Arabs, and 99 thousand non-Arabs (See Annex Table 1). The proportion of Egyptians increased from under 40 percent in 1995 to over 52 percent in 2006. The proportions of all other nationalities have declined since 1995 except for the non-Arabs, whose proportion increased slightly. According to the Fafo/UNFPA report 79 percent of the approximately half million Iraqis in Jordan in 2007 are in the Amman area (Fafo and UNFPA 2007, Table 1.).

Figure 1.3

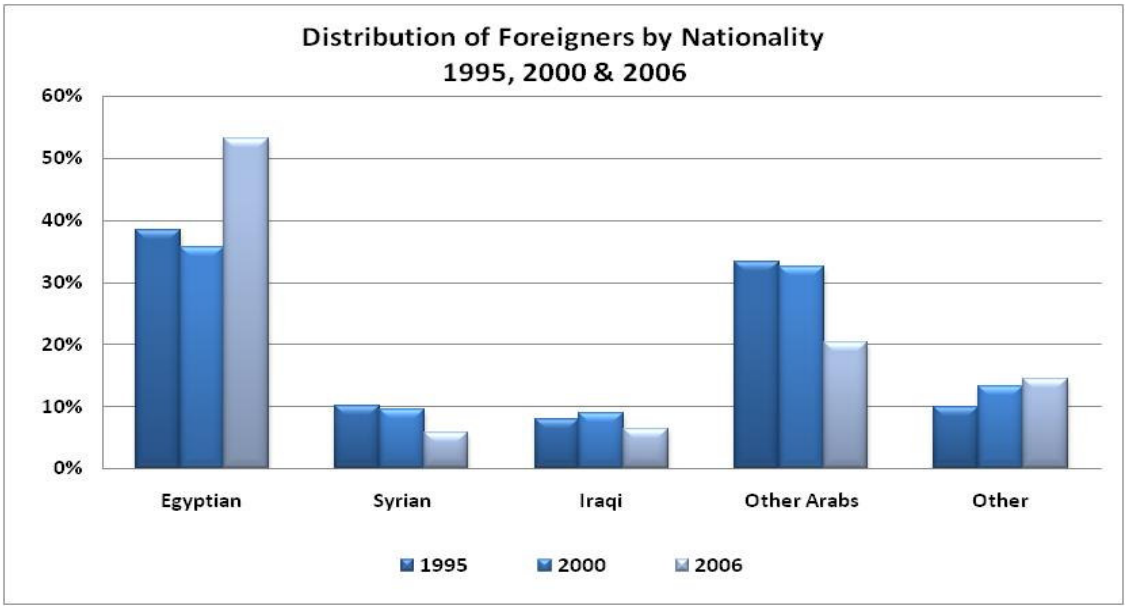
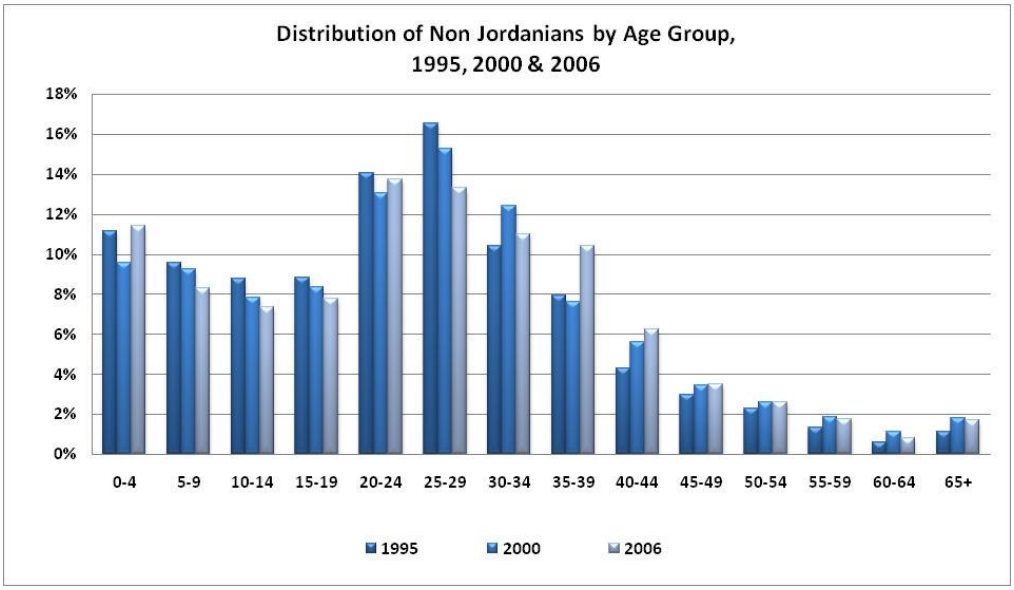


Figure 1.4 presents the distribution of resident foreigners by age group. It shows that approximately one third (38.1%) are aged between 20 and 34 years of age and almost one half (48.5%) are age between 20 and 39 years of age. On average, non Jordanians are older than their Jordanian counterparts reflecting the fact that foreigners residing in Jordan are there mostly for work purposes. Again this does not includes most of the Iraqis who arrived since the 2004 Census was carried out.

Figure 1.4



1.3.2 Age distribution of the Jordanian population

Figures 1.5a and 1.5b present the distribution of the Jordanian population by age group in urban and rural areas in 1995, 2000 and 2006. First, the Jordanian population is characterized by its relative youth. Indeed, in 2006, 36.8% were under the age of 15 and 59.2% under the age of 25. Because of higher fertility rates in rural areas, the rural population has a younger age profile that the urban population, with 61.9% under the age of 25, compared to 58.8% in urban areas. Second, Figures 1.5a and 1.5b show that a major change occurred in the age composition of the Jordanian population over the period 1995-2006. The proportion of youth (under age 19) is decreasing while the share of the older age groups are either remaining stable or increasing. The proportion of youth is decreasing at higher rates in rural than in urban areas. For example, over the period 1995-2000, the proportion of those aged 0-14 decreased by 2.7% per year in rural areas compared to 1.4% per year in urban areas. The same is true for the period 2000-2006. The share of those aged less than 15 declined by 1.4 % per year in rural areas, it declined by 1.1% in urban areas. However, the decline in the share of those under 15 and those under 25 did not yet translate into smaller cohorts of youth as the number of people less than 15 and less than 25 has continued to grow between 1995 and 2006. For instance, the size of the age group 0-14 increased from 2.54 million in 1995 to 2.99 million in 2006 (see Annex Table 4). The largest five-year age cohort in both urban and rural areas is now the 10-14 year olds. This "bulge" will be reaching working age over the next decade, leading to increasing pressure on labor supply.

Figure 1.5a

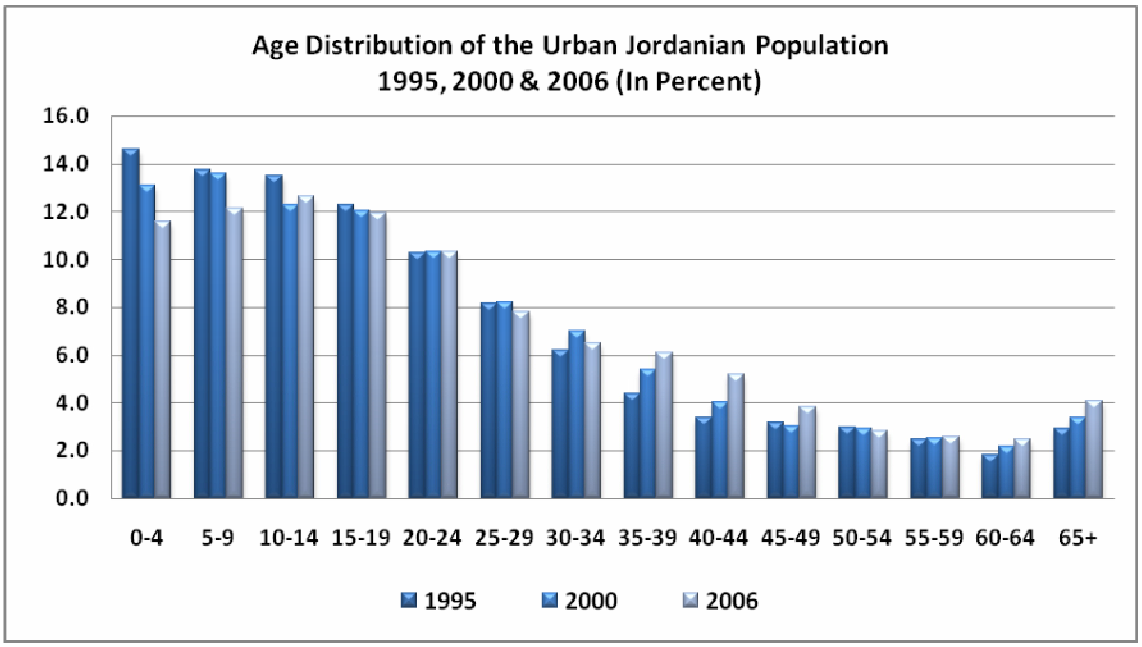
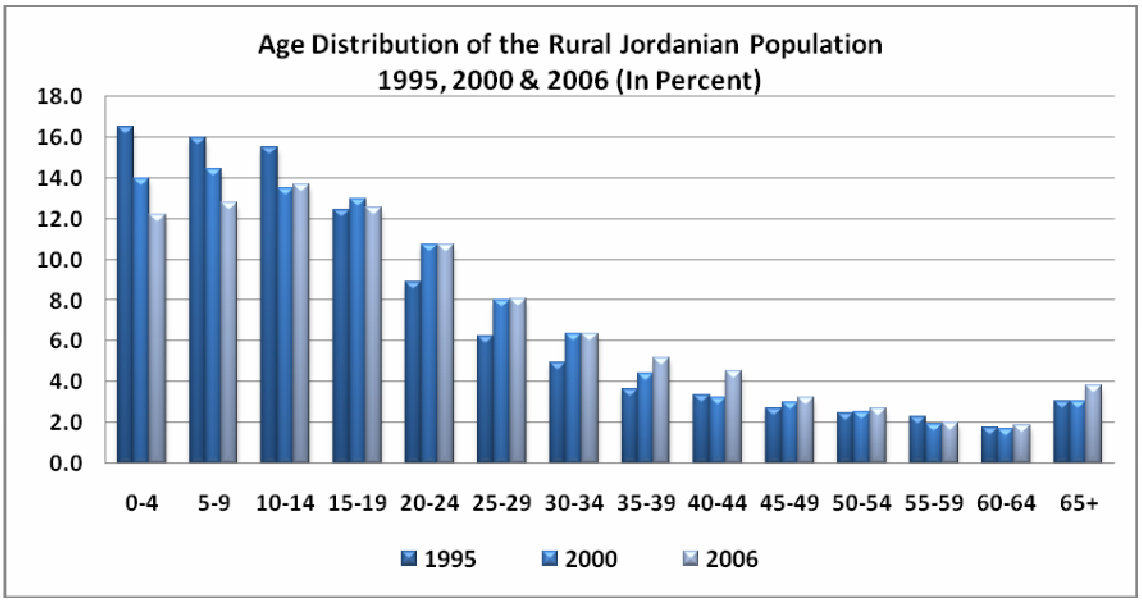


Figure 1.5b



Figures 1.6a and 1.6b show the continuous age distribution of the Jordanian population in urban and rural areas by single year of age in 1995, 2000 and 2006. In urban areas, the 1995, the mode of the distribution centered around age 2. The mode shifted to age 7 in 2000 and to age of 13 in 2006. In rural areas, the shape of the age distribution is flatter, especially in 1995 and 2006 where the proportion of children aged 3 to 14 is very large.

Jordan therefore is at the early stages of a youth bulge, which will begin to sharply increase the supply of young workers to the labor market over the next decade. By 2011, the youth bulge will be centered at age 18, the age at which many secondary school graduates enter the labor market. For instance, the number of 15-19 year olds, many of whom will be entering the labor market in the next five years, is 16 percent higher in 2006 than the 20-24 year olds who are currently making their way into the labor market.

Figure 1.6a

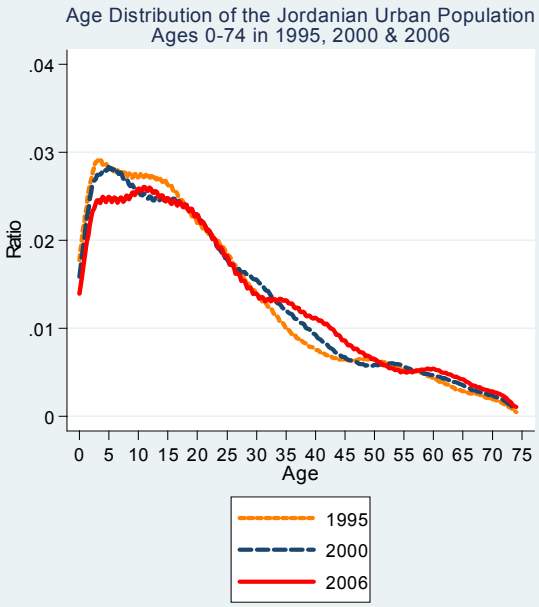
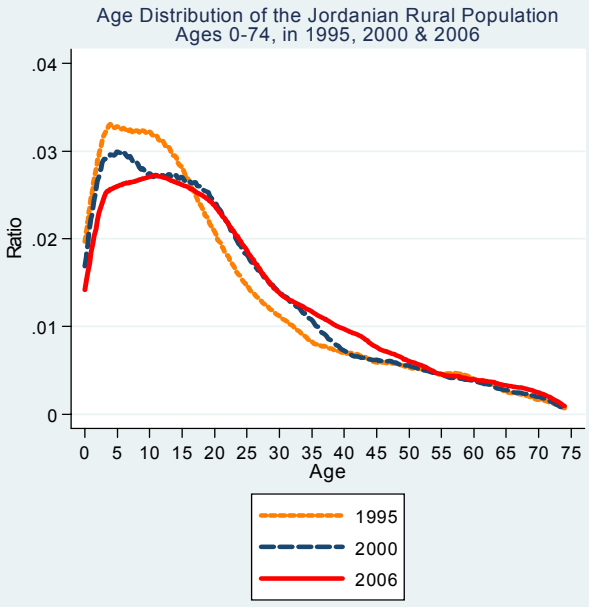


Figure 1.6b



1.3.3 Trend in the Educational Attainment of the Jordanian Population

Figures 1.7a and 1.7b present the average number of years of education by birth cohort among males and females and by urban/rural location for those born between 1930 and 1980, and therefore are expected to have completed their education. First, this figure reveals very important increases in the average years of education over time for both males and females and in both urban and rural areas. For instance, male average years of education in urban areas went up from 6.3 years for those born in 1930 to 11.3 years for those born in 1980. It grew very rapidly for those born between 1930 and 1960 and then the pace of growth slowed for those born between 1960 and 1980. Another striking observation is the fact that gender and urban/rural disparities disappeared over time. Among older cohorts, the average years of education among rural and female Jordanians were lower than among their urban and males counterparts. For example, on average, rural females born in 1930 spent 4.5 years in school compared to 6.6 years for urban males born that same year. And among the youngest cohort, the average years of education has reached approximately 11 years, for both males and females, in both urban and rural areas. Indeed, the average years of schooling for urban females has exceeded that of urban males, starting at about the 1970 birth cohort, and a similar trend are starting to occur in rural areas.

Based on data from the cohorts born from 1975 to 1980, there is some evidence that the increase in educational attainment is starting to accelerate again. This is especially true for urban females, whose mean years of schooling had reached nearly 12 for those born in 1980. This significant increase in the stock of female human capital in Jordan contrasts sharply with the low and possibly declining female participation rates. Educated women are emerging as a valuable albeit highly underutilized economic resource in Jordan.

Figure 1.7a

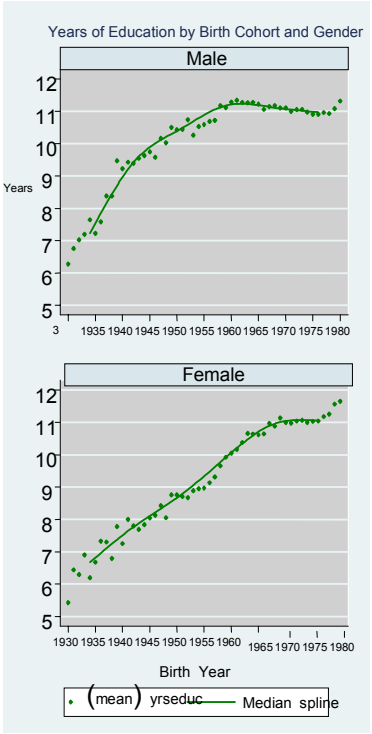
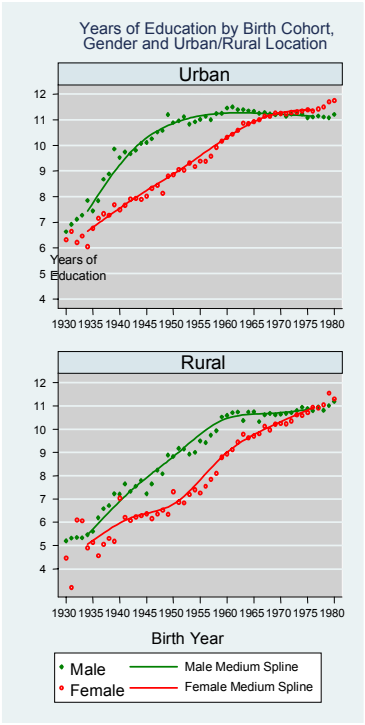


Figure 1.7b



1.4 Labor Force

1.4.1 Trends in Labor Force Growth

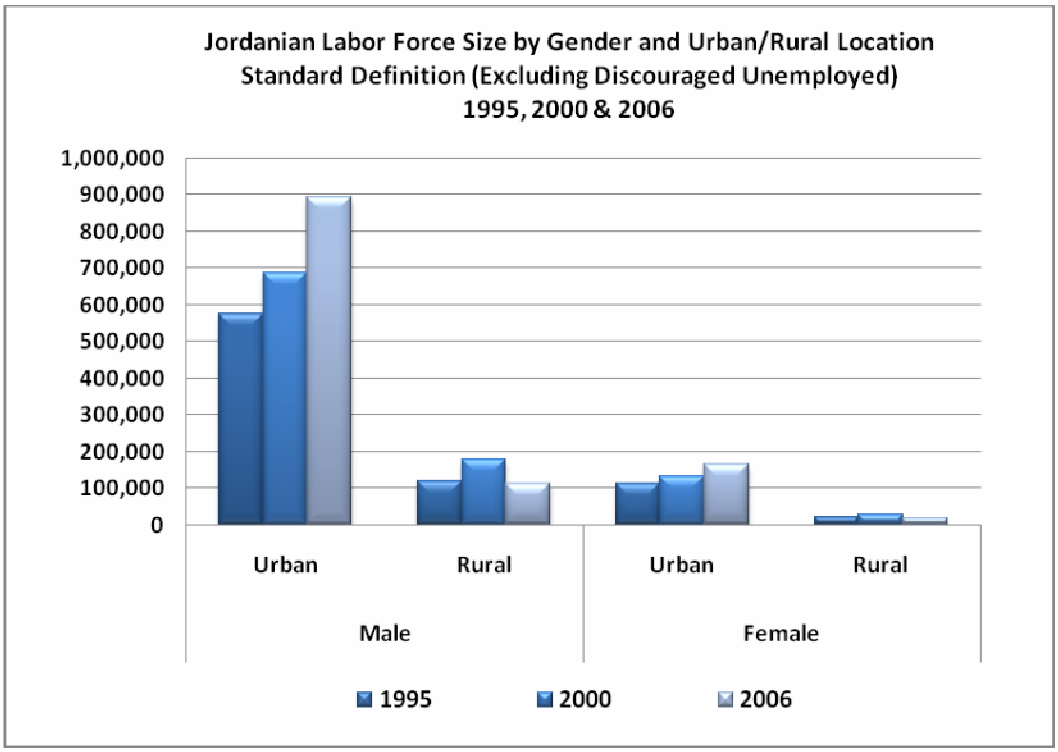
This report distinguishes between two labor force definitions. The first one or standard definition comprises those employed and those unemployed that are not working, available for work and searching for a job. The second definition or broad definition includes the latter, plus the discouraged unemployed, the non-employed who desire and are available for work, but have not actively searched for it. The standard definition is available for the whole study period (1995-2006) but the broad definition is only available for years 2000 to 2006.

As shown in Table 1.1, the Jordanian labor force (nationals only), according to the standard definition, grew from 0.83 million in 1995 to 1.02 million in 2000, at the very rapid rate of 4.2% per annum. By 2006, it had reached 1.18 million, which represents a deceleration in the rate of growth to 2.5 percent per annum over the 2000-2006 period. Figures 1.8a and 1.8b show the trend in the size of the Jordanian labor force by gender and urban/rural location among those aged 15-64 using the standard and broad definitions, respectively. The figures reveal clear gender disparities. Indeed, in 2006, about a million males are active compared to only 183 thousand females (see Table 1.1). The male labor force is also growing more rapidly than that of females, despite the faster accumulation of education among females.

While overall the growth of the labor force appears to be slowing, it is accelerating in urban areas and decelerating sharply, if not declining in absolute terms in rural areas. In urban areas, the growth

accelerated, from 3.4 percent per annum to 4.3 percent per annum, with the accelerating trend affecting both males and females. In rural areas, there was an absolute decline in the labor force in the 2000-2006 period.[1]

Figure 1.8a



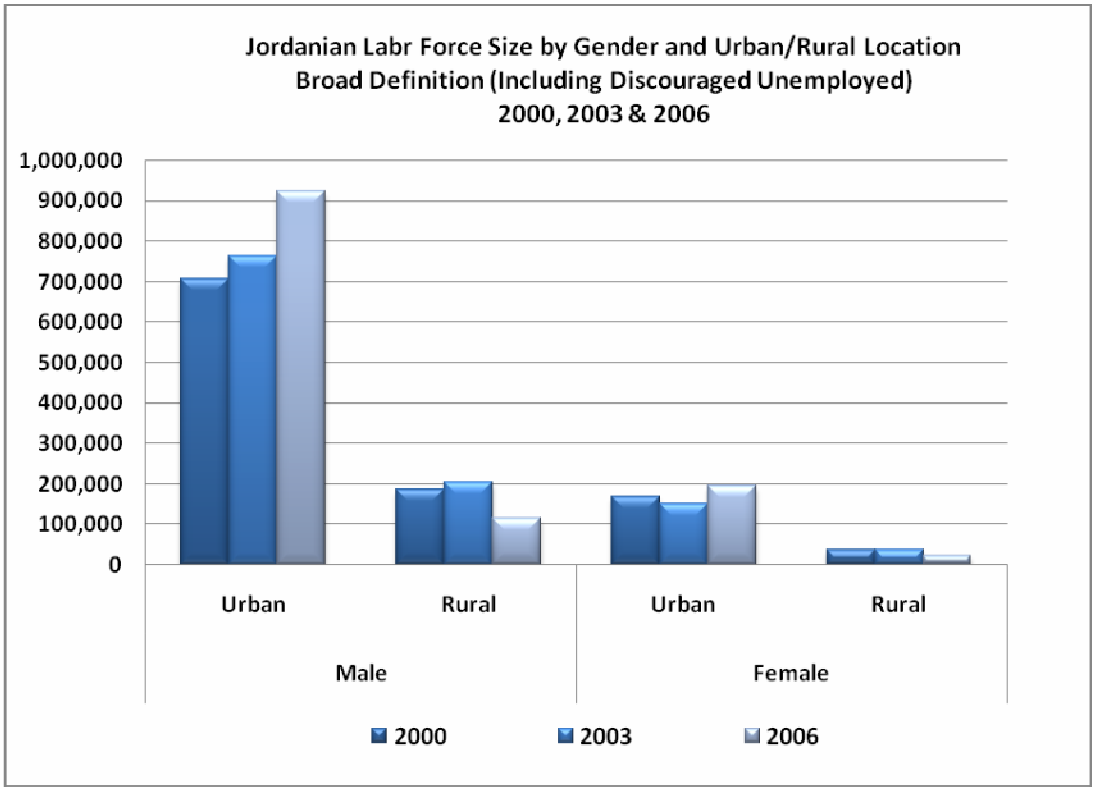
While the number of economically active men is almost not affected by the definition used, the size of the female labor force differs slightly. For example, in 2006, 183,434 women were active according to the standard definition while 216,089 were active according to the broad definition. The rate of the growth of the broad labor force for females is lower than that of the standard labor force, suggesting that the number of female discouraged unemployed is growing more slowly than the labor force.

[1] This finding needs to be checked more carefully. There may have been some administrative changes in the urban and rural classification in 2006 that resulted in this apparent decline.

Table 1.1: Jordanian Labor Force Size by Gender, Urban/rural Location (standard and broad definitions)

Standard Definition						Broad Definition			
	1995	2000	2006	Av. Ann. Gr. Rate, '95-'00	Av. Ann. Gr. Rate, 00-'06		2000	2006	Av. Ann. Gr. Rate, 00-'06
Male						Male			
Urban	576,057	685,429	893,626	3.5	4.4	Urban	707,908	922,883	4.4
Rural	120,686	178,993	111,323	7.9	-7.9	Rural	186,580	115,685	-8.0
Total	696,743	864,421	1004948	4.3	2.5	Total	894,488	1038568	2.5
Female						Female			
Urban	113,872	133,634	164,902	3.2	3.5	Urban	168,123	194,354	2.4
Rural	21,770	27,778	18,532	4.9	-6.7	Rural	36,590	21,735	-8.7
Total	135,641	161,412	183,434	3.5	2.1	Total	204,713	216,089	0.9
Total						Total			
Urban	689,929	819,063	1058527	3.4	4.3	Urban	876,031	1117237	4.1
Rural	142,455	206,770	129,855	7.5	-7.8	Rural	223,170	137,420	-8.1
Total	832,384	1025833	1188382	4.2	2.5	Total	1099201	1254657	2.2

Figure 1.8b



In the following sections, the analysis is limited to the standard definition of the labor force.

1.4.2 Labor Force Participation

The trend of labor force participation is given in Table 1.2. The first thing to note is the relatively low overall Jordanian labor force participation, at 39.7% of the working age population in 2006, primarily due to a very low female labor force participation rate (12.4%), but also a relatively low male rate by international standards (66.7%). Second, overall participation decreased slightly from 40.4% in 1995 to 39.7% in 2006. This is a reflection of a decline of both male and female participation rates over that period. However, male participation rates declined more rapidly, from 69.8% to 66.7%, compared to female rates, which went from 12.8% to 12.4%. These trends are present in both urban and rural areas. Female participation decreased in urban areas while it slightly increased in rural areas. Urban participation rates continue to be higher than rural rates for both males and females, but the gap is shrinking.

Table 1.2: Labor force participation (Ages 15-64) by gender, Urban/rural location – standard definition (in percent)

		1995	2000	2006
Male	Urban	70.7	69.7	67.1
	Rural	65.8	66.5	63.4
	Total	69.8	69.0	66.7
Female	Urban	13.6	13.7	12.6
	Rural	9.6	10.5	10.7
	Total	12.8	13.0	12.4
Total	Urban	41.8	41.8	40.1
	Rural	34.7	38.8	37.2
	Total	40.4	41.1	39.7

1.4.3 Labor Force Participation by Age

Figures 1.9a and 1.9b present male and female participation according to age in both urban and rural areas in 1995, 2000 and 2006. They give further insight into the decline in male and female participation observed in the previous section.

As expected, male participation increases with age, reaching almost universal participation (91% and above) among those aged 27-34, and then it begins declining again. While the decline is slow for men over 35 in urban areas it is sharper in rural areas. The trend over time reveals that male participation has been declining among those aged 45 and above in urban areas. In rural areas, the decline in male participation over time starts as early as age 35.

This early decline in male participation at a fairly early ages and its increasing trend over time observed in Jordan is quite pronounced and does not conform to international trends.

This is an issue that warrants further investigation. It could be related to a trend toward earlier retirement from the military, whose recruits might be concentrated in rural areas. It is probably the most significant development in the evolution of labor force participation in Jordan.

Female participation also increases with age reaching a peak at the age 30 (26.8 % in urban areas and of 20.9% in rural areas) and then declines sharply until the age of 64. This result reflects the fact that most women are married and have children by the age of 30 and find it difficult to reconcile domestic and employment responsibilities. However, in 2006, female participation increased slightly after the age of 40 in rural areas. The analysis of the trend of female participation by age shows that

female participation increased among young females (aged 20-32) in both urban and rural areas while it decreased among those aged 33 and above in urban areas.

1.4.4 Labor Force Participation by Educational Attainment

Figures 1.10a and 1.10b illustrate male and female participation by educational level for years 1995, 2000 and 2006 among those aged 15-64.

Male participation by educational attainment shows that it is relatively low (below 60%) among holders of less than intermediate diplomas, except for the illiterates and those who read and write. This can easily be explained by the fact that many holders of less than intermediate education are still pursuing their education and thus are out of the labor force. Participation rates reach high levels (more than 80%) among intermediate diploma and university and above graduates.

Urban and rural males have a very similar pattern of participation by educational level.

Over the period 1995-2006, participation decreased for all educational levels except at preparatory and basic education and among vocational apprentices. The decline in participation is most pronounced among illiterate males and probably reflects the decline observed among older males in both urban and rural areas.

Figure 1.9 a

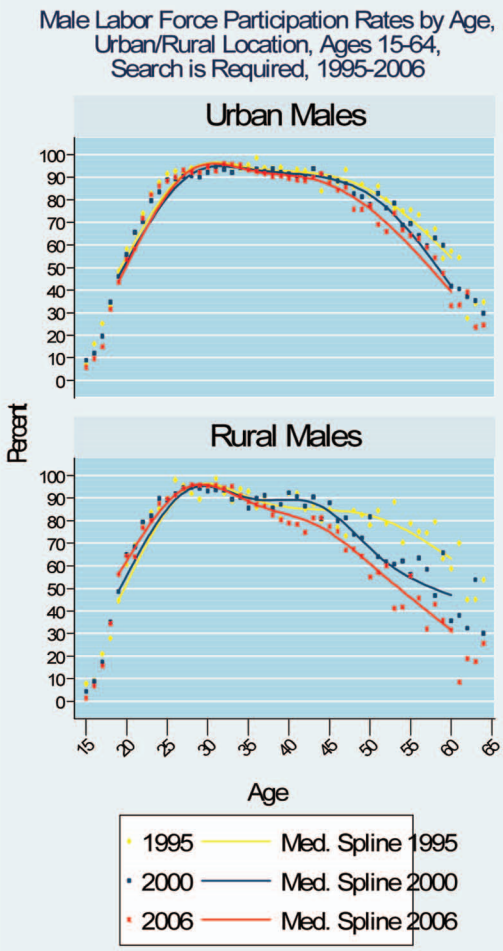


Figure 1.9 b

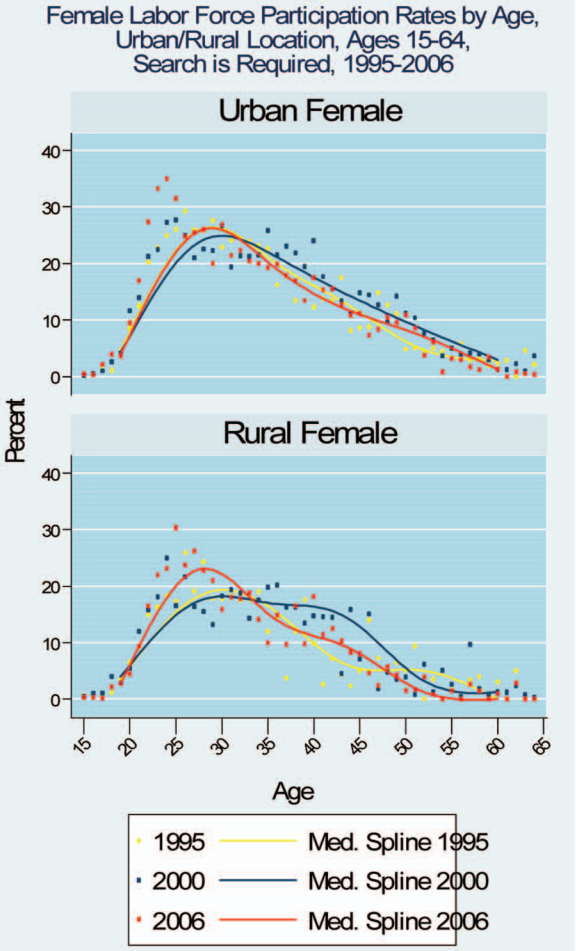


Figure 1.10a

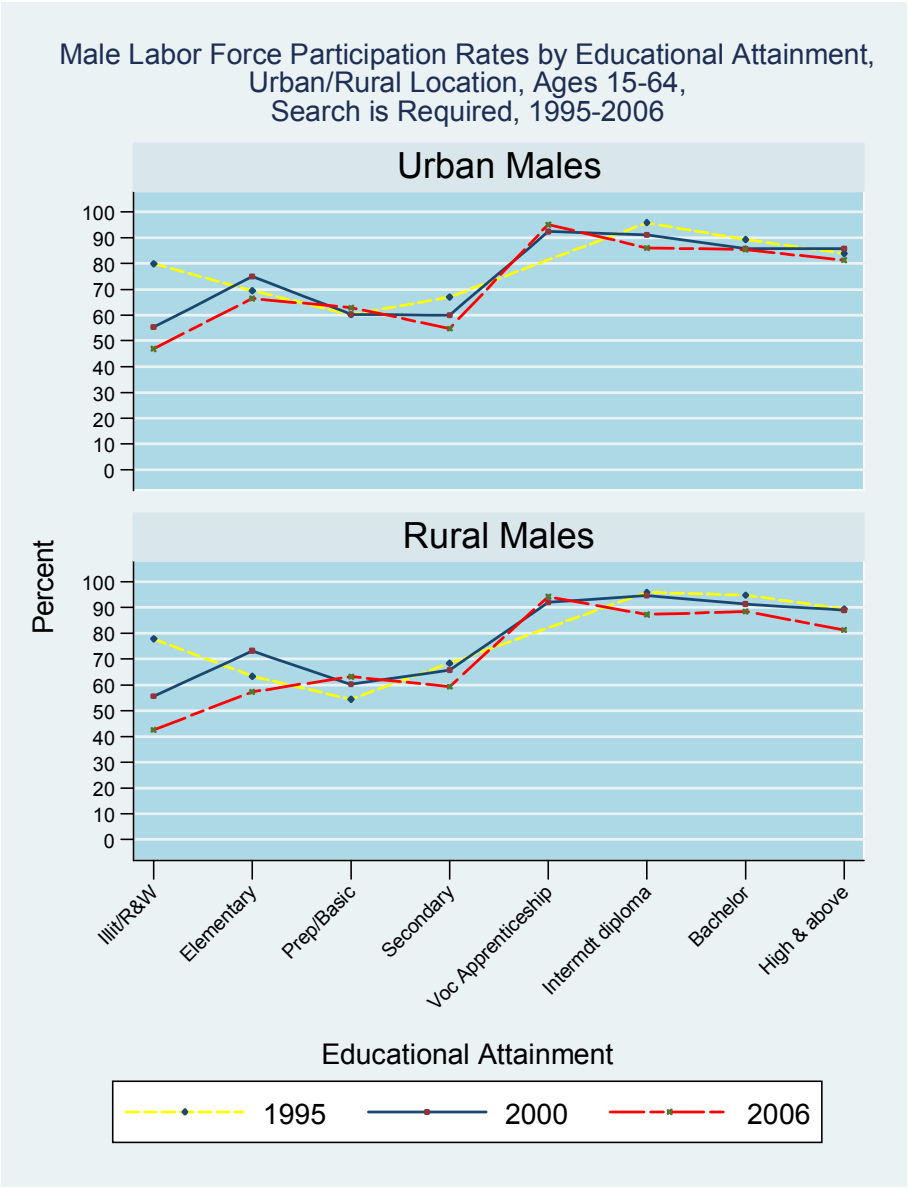
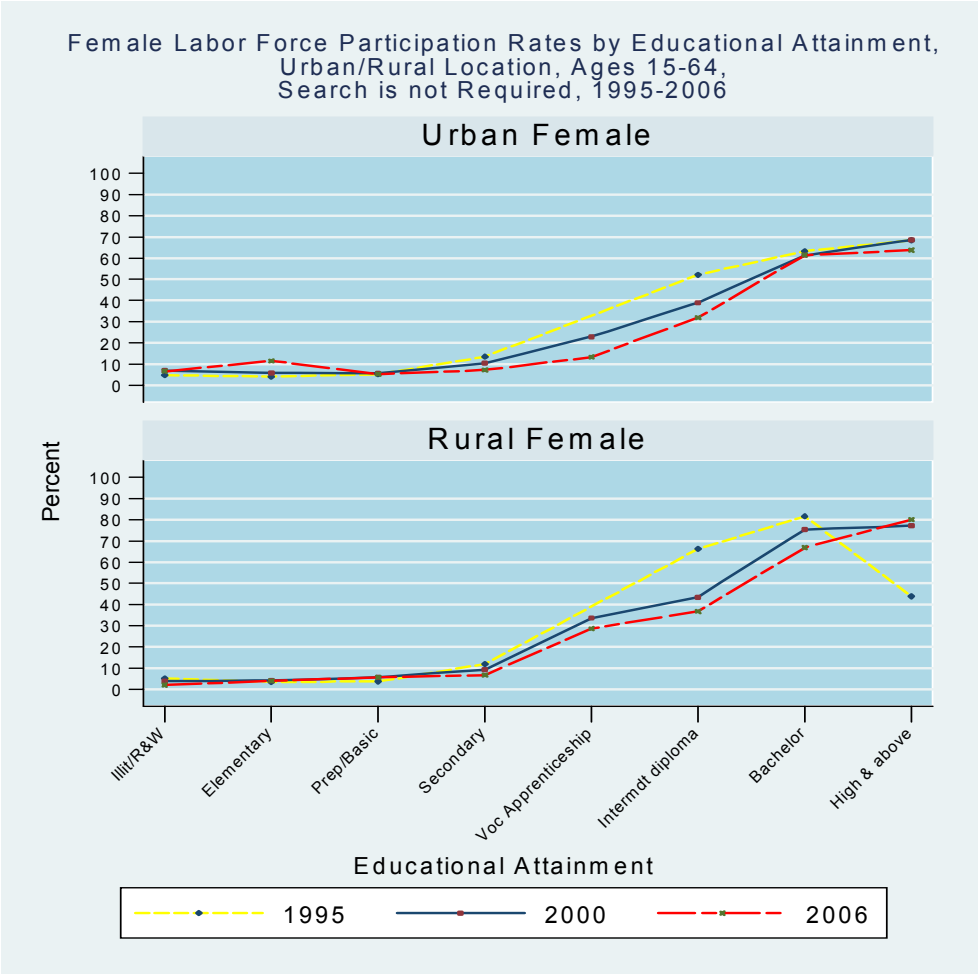

Male Labor Force Participation Rates by Educational Attainment,
Urban/Rural Location, Ages 15-64,
Search is Required, 1995-2006
Urban Males
Rural Males
Percent
100
90
80
70
60
50
40
30
20
10
0
Illit/R&W
Elementary
Prep/Basic
Secondary
Voc Apprenticeship
Intermdt diploma
Bachelor
High & above
Educational Attainment
1995
2000
2006

Figure 1.10b clearly shows the fundamental role education plays in female participation. Female labor force participation rates are very low (below 10%) among those with secondary education and below and then rise sharply with participation reaching a peak among those with post-graduates degrees (60% in urban areas and 80% in rural areas). However, while female participation rates remained stable at low levels of education, they decreased substantially among all post-secondary graduates between 1995 and 2006.[2] The decline is particularly sharp among vocational apprentices and intermediate diploma holders in both urban and rural areas. The decline may be due to the reduction of employment opportunities in the government in recent years, which is the primary form of employment for educated females.

Figure 1.10b

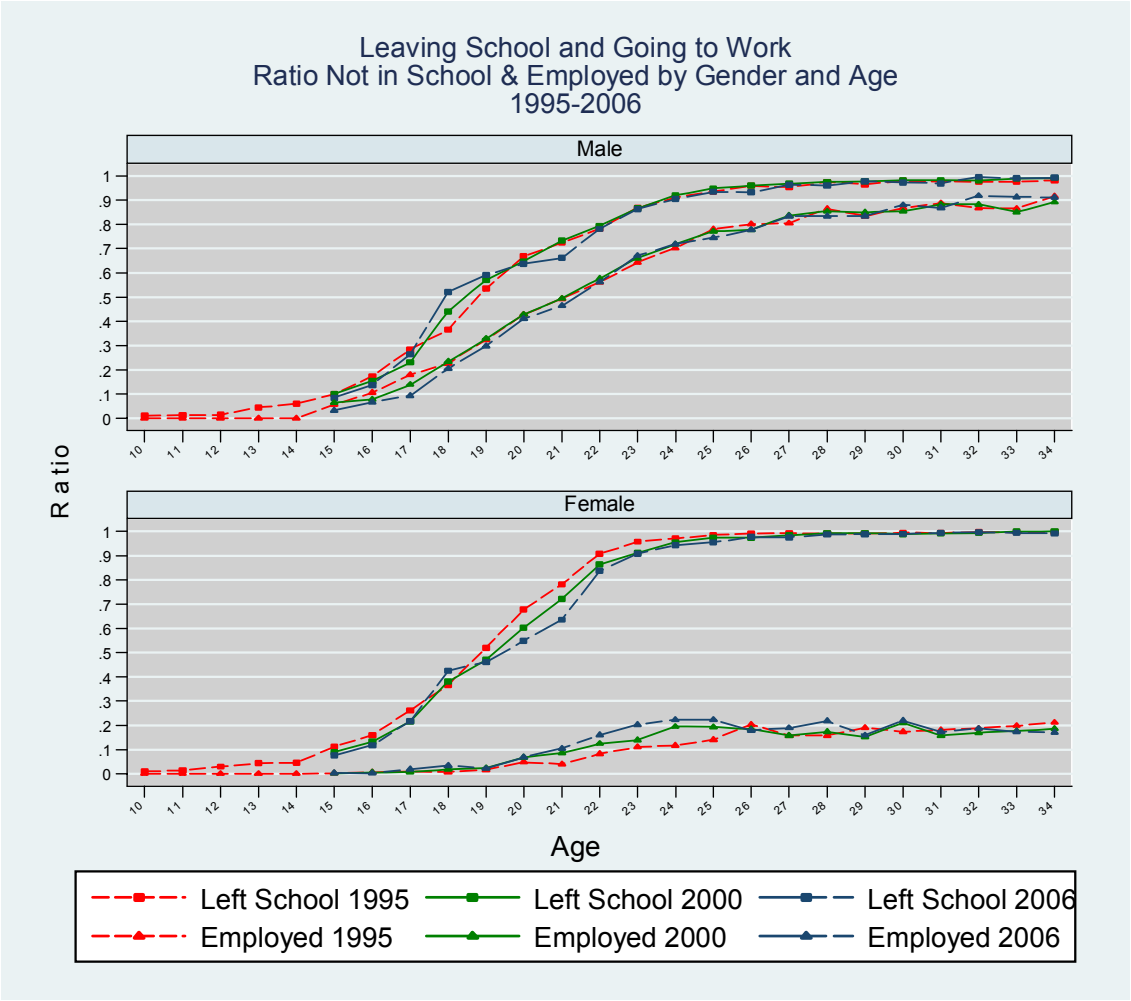


[2] The lower participation rates among higher diploma holders in rural areas in 1995 is probably a figment of the data since the sample size in that category in rural areas is quite small.

1.4.5 Trends in Timing of Leaving School and Going to Work

Figure 1.11 shows the proportion of those who are not in school and those who are working according to age, for males and females in 1995, 2000 and 2006. The gap between the two sets of curves represents those who left school but are either inactive or unemployed by age. The wider gap between the two sets of curves among women underscores the fact that a greater proportion of females are either inactive or unemployed compared to their males' counterparts.

Figure 1.11



As expected the proportion of individuals leaving school increases with age. By age 15, less than 10 percent of males or females in Jordan had left school in any of the years under consideration. This underscores the high enrollment rates in basic education in Jordan. By age 18 over 50 percent of males had left school in 2006, which is a significant increase over those who had left by that age in 1995 and 2000 (See details of Figure 1.11 for young males in Figure 1.11a). This indicates a growing tendency for Jordanian males to end their schooling at the completion of their secondary certificates instead of continuing to higher education. Among females, the proportion of those who left school among 18 year olds in 2006 is lower than that of males, at about 42 percent. It has increased slightly from 1995 to 2006, but much more slowly than for males(See Details of Figure 1.11 for young

females in Figure 1.11b). This indicates that females in Jordan are more likely than males to go onto university education and increasingly so over time. The rate of those who left school by age 21 shows an opposite (declining) trend. It declines from over 72 percent in 1995 to 66 percent in 2006 for males, and from 78 percent to 62 percent for females. It shows that those who start higher education were more likely to stay until they completed a degree in 2006 than in 1995. It also shows that more young women than men remain in higher education till degree completion. By age 23, nearly 88 percent of young men and over 90 percent of young women had left school, indicating that slightly more men than women pursue post-graduate studies.

Figure 1.11a Details of Figure 1.11 for Males 17-24

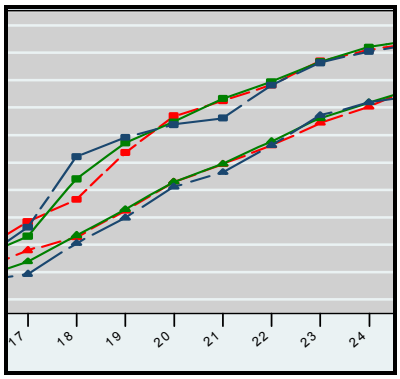
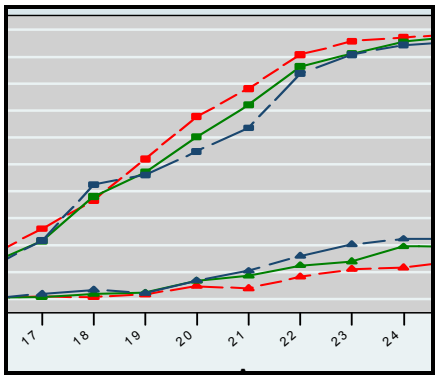


Figure 1.11b Details of Figure 1.11 for Females 17-24



The timing of entry into work for early school leavers among males is almost immediately after leaving school. Thus early school leavers probably leave because of the need to work. By age 18, the gap between school leaving and starting work widens, indicating the tendency of secondary school graduates to spend some time in unemployment searching for an appropriate job. The gap between the ratio of those who left school and those who started work remains about constant for young men until age 25 or so. For men, this gap is almost entirely made up of unemployment and implies an unemployment duration of about 2-3 years. By age 26 the gap narrows significantly, and by age 30 the share of employed males reaches its maximum of about 90 percent.

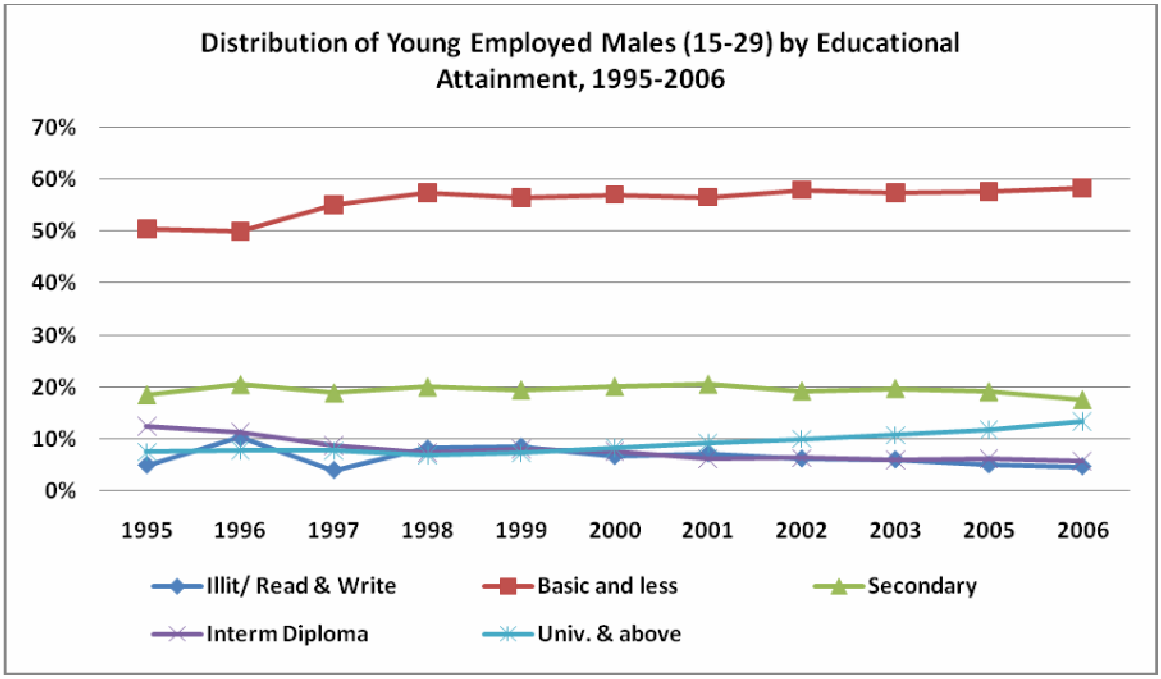
The timing of starting work is much later for young women. Until about age 19, nearly all young women who left school in Jordan are either inactive or unemployed. By age 20, the share beginning to work starts increasing steadily from about 5-7 percent at age 20, to a peak of 22 percent at age 24-25 in 2006. Female employment rates then fluctuate around this level until age 30, after which it declines below 20 percent. In 1995, the age pattern of employment for young women was a bit different. Employment rates were generally lower starting at age 20 and the peak employment rate was reached later, at age 26. In all years, the period of significant increase in employment for young women is the period from age 20 to 25, when most young women who are going to work, start entering into employment. Since employment rates persist at only slightly lower rates beyond the typical age of marriage in Jordan, it appears that only few of those women who opt to work leave the labor force upon marriage.

1.4.6 The Distribution of New Entrants by Educational Level

Figures 1.12a and 1.12b give an indication on the trend of new entrants' educational level over the period 1995-2006. As the EUS does not provide information on the first employment status or the age at entry into first employment, the educational attainment of new entrants is proxied here by that of employed youth (aged 15 to 29).

As shown in Figure 1.12a, the average educational attainment of employed young men has changed only slightly since 1995. Just under sixty percent of employed male youths in 2006 had basic or elementary education, up from 50 percent in 1995. The second largest group of male new entrants is made up of those with secondary education, who constitute 20 percent, with almost no change in their proportion since 1995. These are followed by those with university degrees and above, whose share has increase steadily from about 8 percent in 1998 to 13 percent in 2006. Finally, illiterates and those with intermediate degrees (two-year colleges or institutes) make up about 5 percent each and are on a downward trend. The main conclusion from this data is that the average educational attainment of employed new entrants in Jordan has not changed much over the past decade. This confirms the earlier finding that the average years of schooling has not changed much for men born between the years of 1960 and 1980, with the possible exception of the last couple of cohorts (See Figure 1.7a). The male labor market is thus increasingly dominated by males with basic education, with a slowly rising share of males with university education.

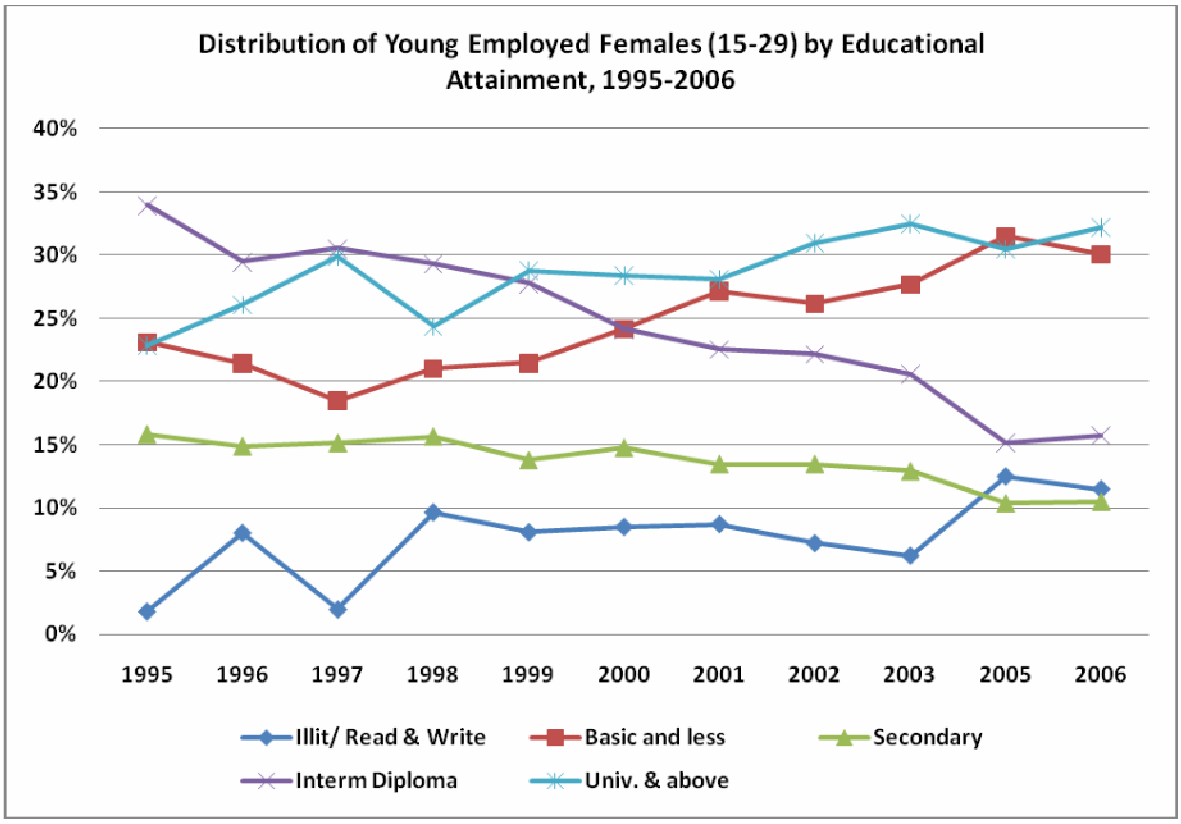
Figure 1.12a



Employed female new entrants in Jordan are significantly more educated that employed male new entrants, because employment is much more selective by education for females. However, despite significant changes in composition since 1995, it is still hard to say whether the average educational attainment of new female entrants has increased significantly. The two groups that are now dominating the female labor market are university graduates, whose share has increased from about

23 percent in 1995 to 32 percent in 2006, and basic and elementary graduates, whose share has increased from 23 percent in 1995 to 30 percent in 2006. The share of those with secondary and intermediate higher degrees has declined over time and that of illiterates has increased. Because employment among women is much more selective than among men, there is not a direct relationship between trends in education for all females, which has followed an upward trajectory and the trend in education among employed women. The mediating variable is the pattern of labor force participation by education. As we saw in Figure 1.10b, female labor force participation rises significantly with education, but there were significant declines in participation in recent years for educated women, leading the somewhat inconclusive trends observed among young workers.

Figure 1.12b



1.5 Conclusions

The foregoing analysis has shown that although Jordan's labor force growth has decelerated somewhat since 1995, Jordan is poised for another spurt of labor force growth as the largest cohort ever of young people makes its way into the labor market over the next decade. Even if recent declines in labor force participation persist at the current pace, the forthcoming increase in the size of the working age population will more than compensate for them, leading to an acceleration in the growth of the labor force. Although, rates of educational attainment had stagnated in recent years, especially among young men, there is some evidence is that this stagnation might have ended and that future cohorts of labor markets entrants will be more educated, and will thus aspire to a higher quality of jobs.

The major trend in male labor force participation is the decline in participation among older males, particularly in rural areas. Males as young as 40, many of them with low educational attainment, seem to be retiring early, and the trend seems to be increasing over time. The main trend in female participation is the declining participation among educated females. While overall female participation rates are stable or declining slightly, they should have in fact been rising due to the increased educational attainment of the female working age population. The primary reason for the lower participation rate among educated females is likely to be the reduced opportunities in the public sector that are perceived to be more compatible with women's domestic burdens. Given the women's educational attainment in Jordan is now higher than that of men, this reduced participation in economic activity among educated women appears to be a true lost opportunity for the Jordanian economy.

Chapter 2: The Characteristics of Labor Demand in Jordan – 1995-2006

2.1 Introduction

This chapter aims at identifying the structure of labor demand in the Jordanian economy and the main changes that occurred in it since the mid nineties. It focuses on the trend of employment by nationality, sector of ownership, economic activity and occupation. The analysis is based on three data sources: the Employment and Unemployment Surveys (EUS) from 1995 to 2006[3], the Establishment Surveys (ES) from 1994 to 2003[4] and the population Census of 2004[5].

Although the EUS and ES do not fully cover sectors and jobs that employ foreign workers more intensively, we will use the information available on jobs held by foreigners as an indication of the pattern of employment for foreigners. It should be kept in mind however that this pattern could be distorted by the extent to which the jobs held by foreigners in the EUS and ES do not accurately reflect the universe of jobs held by foreigners in Jordan.

Due to apparent inconsistencies in the data sources in the 1995 to 1998 period, we limit most of our analysis in this chapter to the 1999-2006 period, during which the data appear to be more consistent. As shown in Figure 2.1, the 1999-2006 period saw an acceleration of GDP growth from just above 3 percent in 1999 to 8.5 percent in 2004, to settle at just over 6 percent in 2006. Thus, if we subdivide the period into two sub-periods, the 1999-2002 period had relatively slow growth, averaging 4.3 percent and the second period, 2002-2006, had relatively rapid growth averaging 6.5 percent. The period from 1995 to 1998, which we do not focus on due to data inconsistency, was an even slower growth period that the 1999-2002 period.

In accordance with the GDP growth data, data from the EUS, complemented by the population weights we estimated, indicates that employment growth in Jordan accelerated significantly in the period from 2002 to 2006 as compared to 1999 to 2002. The growth rate of overall employment increased from 2.1 percent per annum in the 1999-2002 period to 5.2 percent per annum in the 2002-2006 period. These growth rates translate into an average growth of 22 thousand jobs per year from 1999 to 2002 and 55 thousand jobs per year from 2002 to 2006 (See Figure 2.2). The acceleration of employment growth reflects the more rapid growth of GDP in the latter part of the period, but also the growing contribution of the public sector to employment creation after a period of contraction (see below).

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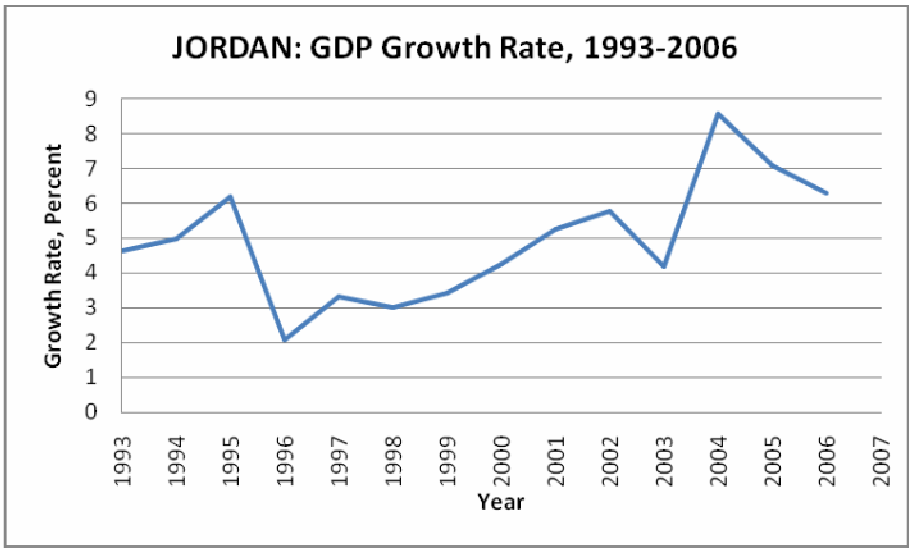
[3] EUS 2004 is excluded from the analysis as it is not comparable to other EUS years. Appendix B presents the list of common variables for each survey of the ES from 1994 to 2003.

[4] ES 1999 is excluded from the analysis as it is not comparable to other ES years

[5] 10 percent sample of Census 2004.

Figure 2.1



Source: Jordanian Department of Statistics.

Nevertheless the rapid growth of employment in Jordan from 2002 to 2006 did not necessarily translate into an equally rapid growth of employment for Jordanians. Despite the fact that employment growth among nationals also accelerated from 1.6 percent from 1999 to 2002 to 2.7 percent from 2002 to 2006, a growing proportion of new jobs were being captured by non-Jordanians. As shown in Figure 2.2, the proportion of net new jobs captured by non-Jordanians increased from 37 percent in the 1999-2002 period to 53 percent in the 2002-2006 period.[6] Since nearly all foreigners working in Jordan work for the private sector, the rapid growth of job creation for foreigners could explain the stagnating share of private sector employment among Jordanians in recent years.

2.2 The Structure of Labor Demand by Sector of Ownership

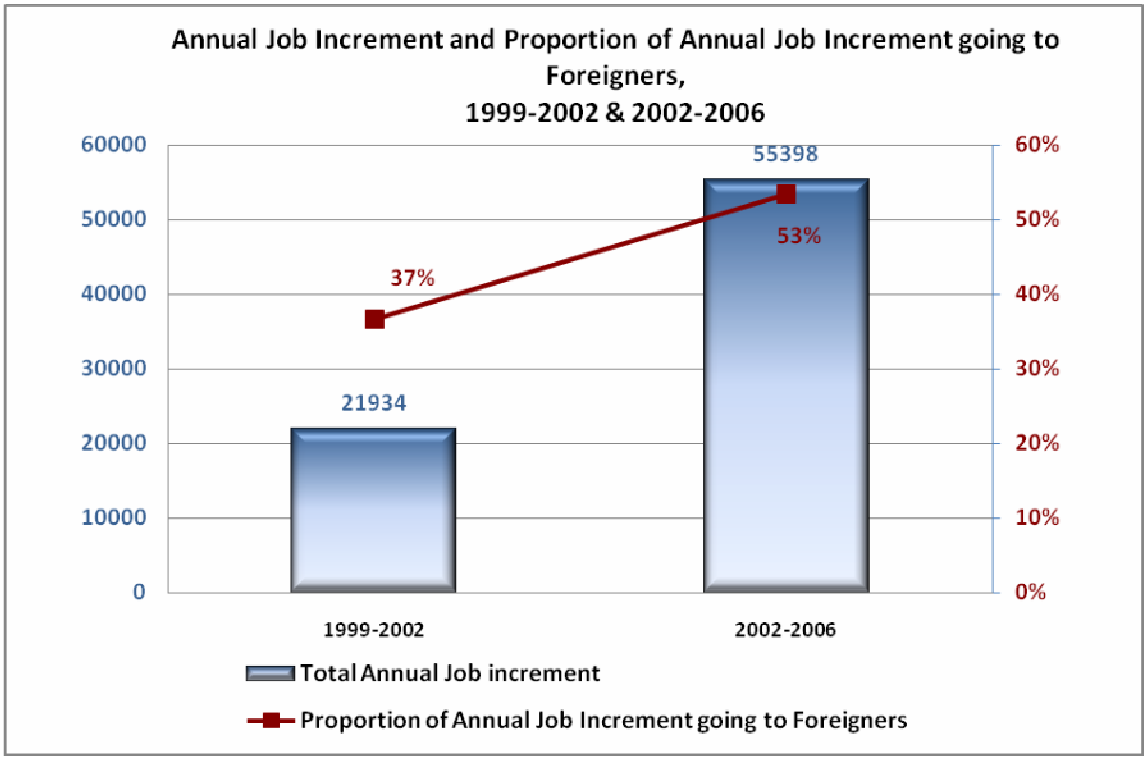
As shown in Figure 2.3 below, the share of private sector employment for Jordanians in 2006 was 63 percent as compared to 96 percent for non-Jordanians. While the share of the private sector for non-Jordanians has remained fairly stable, that of Jordanians increased significantly from 1999 to 2001 and then began a slow decline from 2001 to 2006.[7] As shown in Table 2.2, the rising share of the private sector among Jordanians in the 1999-2002 period has to do with an absolute decline in public sector employment, at a rate of 2.7 percent per annum, at a time when private sector employment of Jordanians was growing at 4.2 percent per annum. The declining share of the private

[6] These estimates of the share of employment growth going to foreigners are consistent with those obtained by the World Bank in World Bank (2007).

[7] Because of hard to explain fluctuations in the data from 1995 to 1998, we opt to put less weight on the trend during this period.

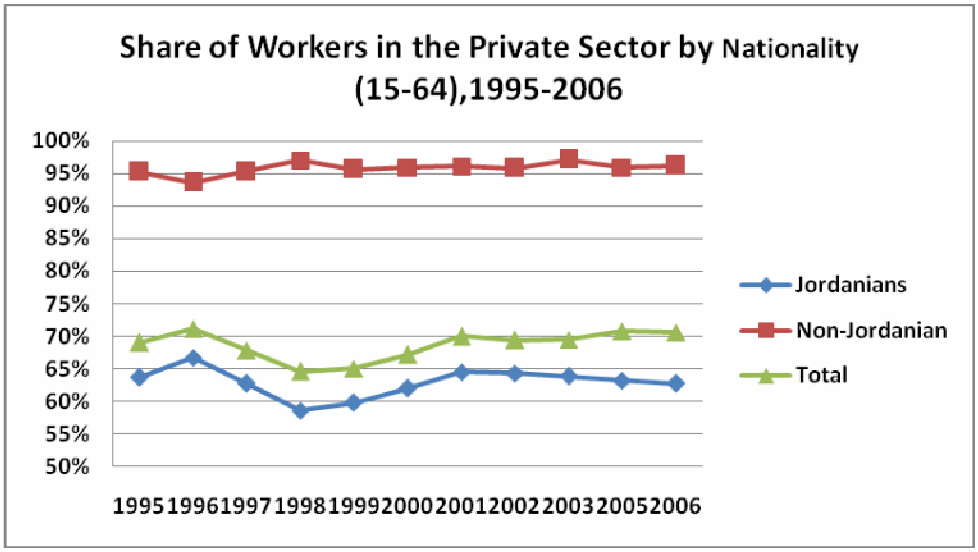
sector in the total employment of Jordanians in the subsequent period (2002-2006) is linked to a reversal in the decline of public sector employment, which accelerated to a rate of 3.8 percent per annum and a deceleration in the growth of private employment among Jordanians. Overall, employment growth in the private sector accelerated to 6 percent per annum, but it significantly increased its reliance on foreign workers.

Figure 2.2



Source: Authors' calculations based on EUS data

Figure 2.3



Source: Authors' calculations based on EUS data

Thus the evidence available seems to indicate that the booming private sector economy in Jordan in the 2002-2006 period did not contribute as much would be expected to employment growth among Jordanians because of increasing reliance on foreign workers in that sector. The number of foreigners employed in the public sector also increased rapidly, but from a very low base.

Table 2.2: Employment Growth Rate by Nationality and Institutional Sector, Ages 15-64, 1999-2006 (in Percent)

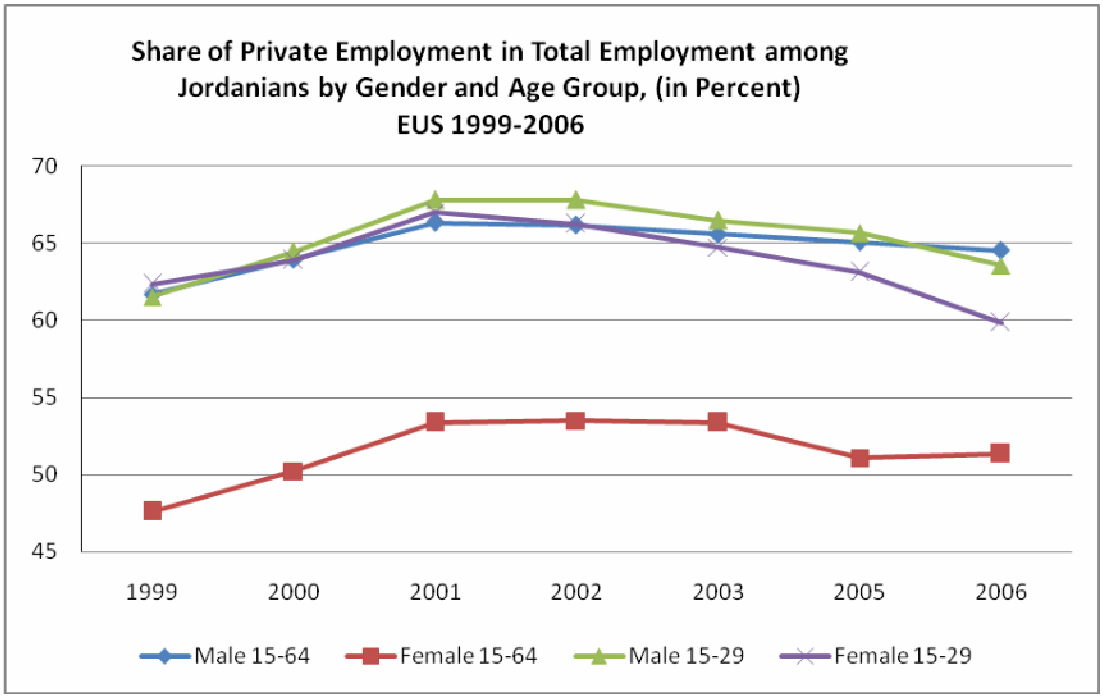
	Average Annual Growth Rate (%)	
	1999-2002	2002-2006
Jordanians		
Public	-2.7%	3.8%
Private	4.2%	2.2%
Total	1.6%	2.8%
Non-Jordanian		
Public	4.5%	18.2%
Private	6.3%	16.2%
Total	6.3%	16.3%
Total		
Public	-2.5%	4.1%
Private	4.7%	6.0%
Total	2.1%	5.2%

Source: Authors' calculations based on EUS data

We now turn to the examination of the sectoral breakdown of employment along gender lines among Jordanians. Jordanian women are much more dependent on public sector employment than men, with nearly fifty percent of women 15-64 working in the public sector. However, young

employed women are just as likely to be found in the private sector as young men and men overall (see Figure 2.4). By 2001, over two thirds of employed young women were to be found in the private sector, up from 54 percent for women overall. This sharp increase in private employment for young women is reflected in the very rapid rate of female employment in the 1999-2001 period. However, as the public sector resumed hiring in the subsequent period, the proportion of young women in the private sector declined more rapidly than for men. These trends confirm that the public sector is the preferred destination for young women and that they turn to the private sector only when necessary.

Figure 2.4



Source: Authors' calculations based on EUS data

Comparison between EUS and ES

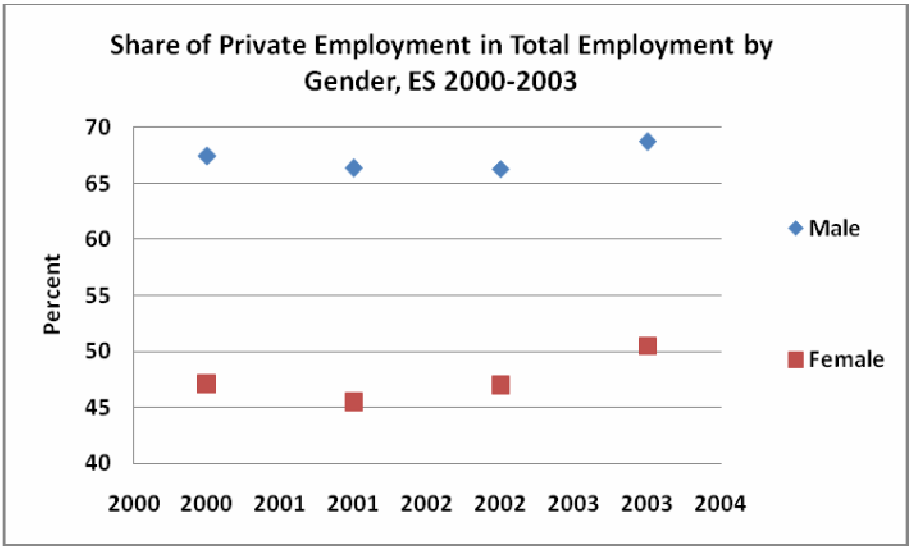
Table 2.3 presents the evolution of the employment size and distribution by gender and sector of ownership for Jordanians according to the establishment-based Employment Survey (ES) data from 1994 to 2003. The ES is nationally representative. It covers all public enterprises and all private enterprises with 50 and more employees, and a stratified sample of private enterprises below that size. The agricultural sector is excluded and most of the construction sector is not covered in the ES. The sampling frame of the ES changed significantly after 1999 to include a much better representation of small private sector establishments. Thus before 2000 the coverage of the private sector is very partial and not comparable to the EUS. Thus, the comparison between ES and EUS data is restricted to the period 2000-2003.

Table 2.4 presents the evolution of the employment size and distribution by gender and sector of ownership given by the EUS excluding the agricultural sector in order to be comparable with the ES

figures presented in Table 2.3. Some disparities appear when ES and EUS figures are compared. The ES understates the number of employed Jordanian males in both public and private sectors. Indeed, in 2003, the size of male employment obtained by the EUS is 1.8 times higher in the public sector and 1.4 times higher in the private sector that that reported by the ES. Conversely, the ES seems to better capture female employment in both public and private sectors and disparities across the two data sources are smaller. For instance, the size of female employment given by the ES in 2003 is larger by 27.6 percent in the public sector and by 17.0 percent in the private sector. This is probably because most employed Jordanian women are working in formal enterprises that are well covered by the ES.[8]

Over the period 2000-2003, both EUS and ES data show the same trend of a growing private sector share (see Figures 2.4 and 2.5). However, while the share of male private employment given by the ES is larger than the one obtained by the EUS, it is the contrary for female employment.

Figure 2.5



Source : Authors' calculations based ondata from ES.

[8] See discussion of this issue in Ahamad (2006).

Table 2.3: Employment Size and Distribution by Gender and Economic Sector, 1994-2003

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Male									
Public	82536	149017	157187	158380	163365	163891	166985	167665	172058
	51.7	56.9	54.6	55.0	55.0	32.6	33.6	33.7	31.3
Private	77113	112954	130490	129808	133738	339364	330027	330354	378209
	48.3	43.1	45.4	45.0	45.0	67.4	66.4	66.3	68.7
Total	159701	262028	287732	288243	297158	503255	497012	498019	550267
	100	100	100	100	100	100	100	100	100
Female									
Public	25876	59299	63540	66941	69450	73433	74875	77259	76599
	66.2	70.2	67.8	68.2	68.2	53.0	54.6	53.0	49.5
Private	13188	25229	30125	31256	32382	65181	62367	68383	78197
	33.7	29.8	32.1	31.8	31.8	47.0	45.4	47.0	50.5
Total	39130	84598	93733	98265	101900	138614	137242	145642	154796
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: ES 1994-1998 & ES 2000-2003

Table 2.4: Employment Size and Structure by Economic Sector and Gender, Ages 15-64, 1995-2006 (Excluding the agricultural sector)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2005	2006
Male											
Public	190903	182067	254314	245779	286718	266120	251959	258787	272878	294090	306605
	34.6	32.1	37.3	42.8	40.7	37.1	34.4	34.2	34.9	35.4	36.0
Private	360786	385287	426915	328631	418573	447807	477854	491966	504707	531082	541991
	65.4	67.9	62.7	57.2	59.4	62.9	65.6	65.8	65.1	64.6	64.0
Total	551689	567354	681230	574411	705291	713927	729813	750753	777585	825172	848596
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Female											
Public	54742	54668	56940	49020	61443	61806	57448	62009	60009	63021	64779
	60.2	57.9	51.8	53.2	55.5	51.1	47.5	47.0	47.1	49.2	49.0
Private	36263	39789	53011	43049	49326	58766	63080	69329	66830	64536	67158
	39.9	42.1	48.3	46.8	44.5	48.9	52.5	53.0	52.9	50.8	51.1
Total	91005	94456	109951	92069	110769	120572	120528	131337	126840	127557	131937
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: EUS 1995 to 2006

2.3 The Structure of Labor Demand by Establishment Size

Because data on firm size is only available from the establishment based Employment Survey (ES), the analysis in this section relies on that source only. It also focuses exclusively on the employment of Jordanians, since the representation of non-Jordanians in the ES is very weak.

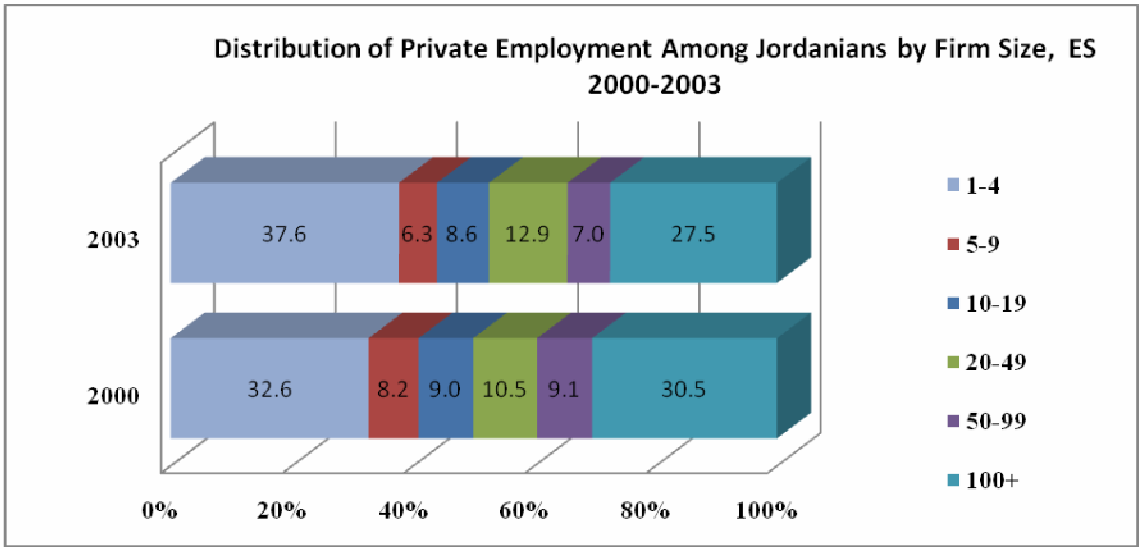
Table 2.5 presents the evolution of the size (in terms employees' number) of private enterprises in Jordan according to the ES from 1994 to 2003. Due to the fact that the ES sampling frame has changed in 1999, the analysis is limited to the period 2000-2003. This table shows that in 2003 almost two-thirds of Jordanian private sector employment was in either very small or very big enterprises. Indeed, more than one third (37.6 percent) of the employment of Jordanians in private establishments is in very small enterprises with less than 5 employees. At the same time employment in very large enterprises employing 100 and more employees represents more than one fourth (27.5 percent) of total employment in the private sector. The share of small to medium enterprises (5-9; 10-19; 20-49 and 50-99 employees) ranges between 6.3 and 12.9 percent.

Table 2.5: Distribution of Private Employment by Firm Size, 1994-2003

Firm Size	1994	1995	1996	1997	1998	2000	2001	2002	2003
1-4	6	0	0	0	0	132051	164953	130482	171803
	0.0	0.0	0.0	0.0	0.0	32.6	42.0	32.7	37.6
5-9	3900	5314	7833	9370	8268	33357	32575	39747	28652
	4.3	3.8	4.9	5.8	5.0	8.2	8.3	10.0	6.3
10-19	3882	5565	9262	9171	8316	36470	27707	29128	39192
	4.3	4.0	5.8	5.7	5.0	9.0	7.1	7.3	8.6
20-49	11047	15712	18513	18740	19868	42581	38854	41079	58995
	12.2	11.4	11.5	11.6	12.0	10.5	9.9	10.3	12.9
50-99	11144	16136	21213	19580	18423	36774	24704	33775	32166
	12.3	11.7	13.2	12.2	11.1	9.1	6.3	8.5	7.0
100+	60323	95455	103795	104202	111246	123312	103601	124527	125598
	66.8	69.1	64.6	64.7	67.0	30.5	26.4	31.2	27.5
Total	90334	138213	160651	161098	166153	404614	392467	398806	456478
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: ES 1994-1998 & 2000-2003

Figure 2.6

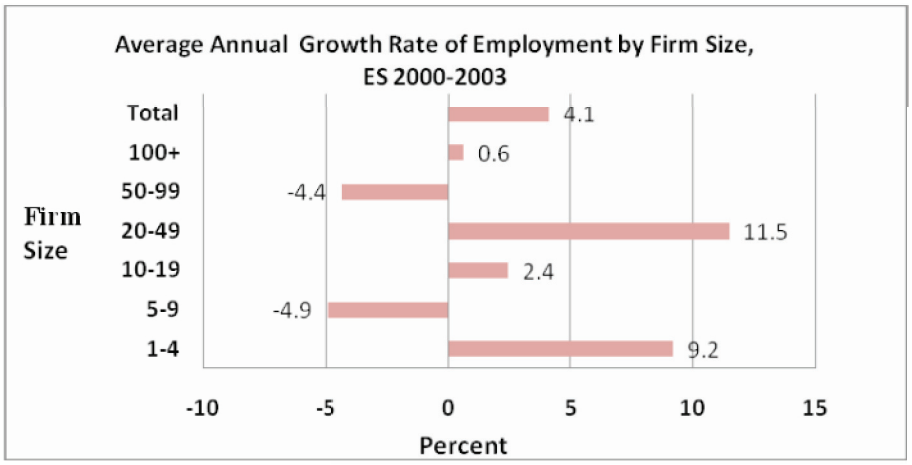


Source: Authors' calculations based on data from ES 2000 and 2003.

Figures 2.6 and 2.7 illustrate the evolution of the distribution of private employment among Jordanians by firm size between 2000 and 2003. [9] They show that the share of very small enterprises (with less than 5 employees) increased from 32.6 to 37.6 percent due to a high growth rate of 9.2 percent per annum (see figure 2.7). Conversely, the share of enterprises with 5 to 9 employees and 10 to 19 employees decreased over the period 2000-2003 either because their employment declined or grew very slowly. The number of medium size enterprises (employing between 20 and 49 workers) grew very fast (+11.5 percent per annum on average) and their share increased from 10.5 to 12.9 percent. The share of large enterprises (50 employees and above) declined from 39.6 percent to 34.5 percent as their number either declined or remained almost stable.

[9] However, it has to be noted that, as shown in Table 2.5, the evolution of the distribution of private employment by firm size is not smooth between 2000 and 2003 and fluctuated a lot.

Figure 2.7



Source: authors' calculations based on data from ES 2000 and 2003.

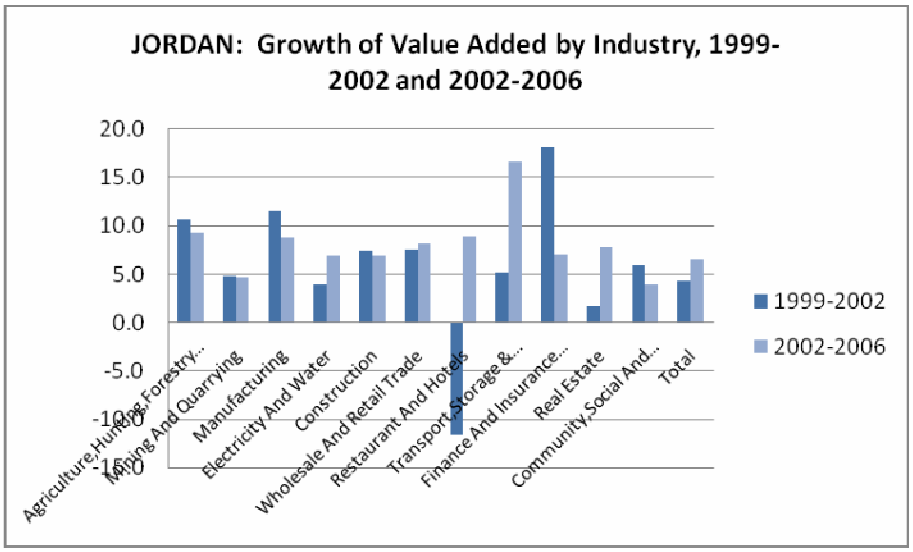
2.4 The Structure of Labor Demand by Economic Activity[10]

The acceleration of GDP growth in the 2002-2006 period was by no means uniform across all industries. Growth in some industries decelerated and it accelerated in others. For instance, as shown in Figure 2.8, the growth of the manufacturing and construction sectors decelerated slightly from the first to the second sub-period, so did that of the community, social, and personal services industry. The finance and insurance industry, which grew very rapidly in the 1999-2002 period slowed significantly, but is still growing faster than the economy as a whole at more than 7 percent per annum. In contrast, the growth rate of the trade, transport and real estate sectors accelerated significantly. The transport sector is now the fastest growing sector of the economy, growing at nearly 17 percent per annum. The tourism sector, as captured by the restaurants and hotels industry, was hit very hard by the after effects of the September 11th 2001 attacks and actually contracted by nearly 12 percent per annum in the 1999-2002 period. However, it made a dramatic recovery in the subsequent sub-period, growing at an average rate of nearly 9 percent per annum.

In what follows, we trace the effects of these economic trends on the structure of labor demand in Jordan. We should keep in mind that in some instances, the trends observed in the value added data will not be fully reflected in the employment data. For instance, the agricultural and constructions sectors mainly employ temporary foreign workers, who may not be very well represented in the EUS or ES data.

[10] Annex Tables 7, 8, present the male and female employment by sector and economic activity according to the EUS 1995-2006.

Figure 2.8



Source: Jordanian Department of Statistics

2.4.1 Employment by Economic Activity and Nationality

The evolution of the structure of overall employment by industry, as captured by the EUS, is shown Figure 2.9 and the rates of growth by industry and nationality are shown in Table 2.6. Agriculture, which, in terms of value added, was growing faster than average in both sub-periods has lost in terms of employment share, between 1999 and 2002 and then its share remained stable until 2006. This is in part due to the fact that the agricultural sector in Jordan is increasingly relying on non-Jordanian workers and many of these foreign workers are not captured in the EUS. In fact, as shown in Table 2.6, employment in agriculture has fallen in absolute terms in the 1999-2002 period and more so among Jordanians. All the recovery of employment in this sector was made up by growth among non-Jordanians.

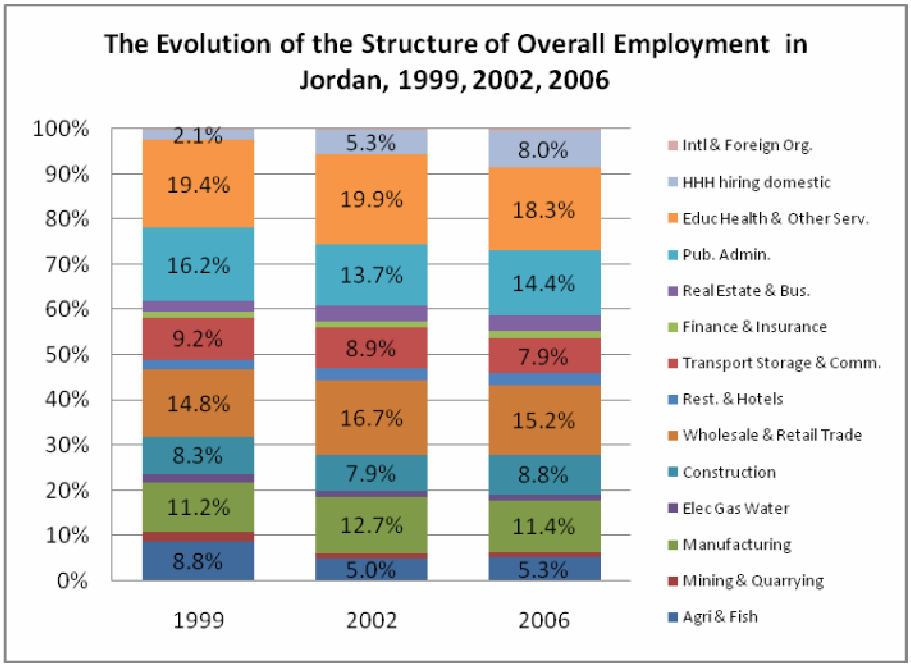
The share of employment in manufacturing has increased in the 1999-2002 sub-period, reflecting the rapid growth in value added of this sector. The slowing of the growth in manufacturing value added in the 2002-2006 period was accompanied by a decline in its employment share (Figure 2.9). Again, there was large-scale substitution of non-Jordanian workers for Jordanians in the second sub-period, when Jordanian employment in manufacturing declined by -0.2% per annum whereas that of non-Jordanians grew by 14 percent per annum.

Despite a slight deceleration in the rate of growth of value added in the construction from the first to the second sub-period, the share of employment in construction declined from 1999 to 2002 and then increased from 2002-2006, when it grew at 8 percent per annum. Again, the rate of growth of employment in this sector was much more rapid among foreigners than among Jordanians (See Table 2.6). The opposite trend was true in wholesale and retail trade, which first saw an increase in its share in total employment and then a decline. Employment in restaurant and hotels is still very limited, but was rising at about 6.5 percent per annum in both sub-periods.

Despite a rapid acceleration in the growth of value added in the transport, storage and communications sector from 1999-2002 to 2002-2006, the share of employment in that sector has fallen continuously since 1999. This reflects a rate of employment growth that is quite a bit less than average in that sector in both sub-periods (see Table 2.6). The deceleration of the growth in value added in the finance and insurance sector was not reflected in the employment data. We actually observe an acceleration of employment growth in that sector from 1999-02 to 2002-06. The same contradictory pattern appears in the real estate and business services sector, where value added growth accelerated but employment growth decelerated significantly

The share if Employment in public administration declined significantly from 1999 to 2002 only to recover slightly in 2006, reflecting the recovery of government hiring in the latter sub-period. In contrast, the share of employment in education increased slightly from 1999 to 2002 and then fell sharply from 2002 to 2006. Finally, the employment share of people engaged in domestic services has been increasing steadily since 1999.

Figure 2.9



Source: Authors' calculations based on data from the EUS.

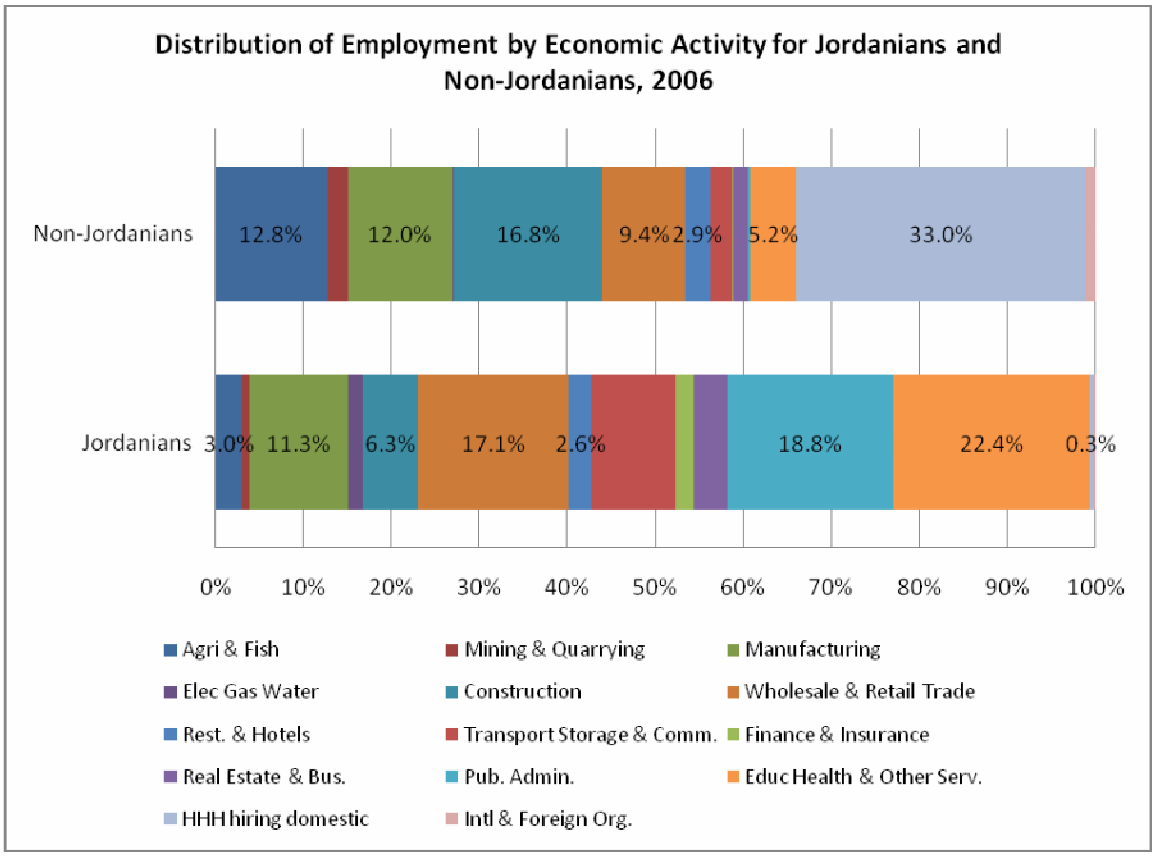
Table 2.6: Average Annual Growth Rate of Employment (15-64) by Economic Activity and Nationality

	Jordanians		Non-Jordanians		Total	
	1999-2002	2002-2006	1999-2002	2002-2006	1999-2002	2002-2006
Agric. & Fishing	-17.6%	-2.9%	-11.2%	18.9%	-15.4%	6.8%
Mining & Quarrying	-16.4%	-5.1%	-25.4%	50.7%	-17.8%	7.6%
Manufacturing	9.0%	-0.2%	-3.8%	14.0%	6.5%	2.5%
Electricty, Gas & Water	-9.9%	6.0%	-23.8%	54.3%	-10.0%	6.6%
Construction	-0.9%	2.6%	3.9%	16.9%	0.6%	8.0%
Wholesale & Retail Trade	7.8%	1.9%	-3.5%	10.1%	6.3%	2.9%
Restaurants & Hotels	9.4%	5.7%	-0.5%	8.1%	6.7%	6.3%
Transport Storage & Comm.	0.9%	0.8%	1.6%	30.6%	0.9%	2.0%
Finance & Insurance	3.7%	6.4%	-32.3%	66.8%	3.4%	6.9%
Real Estate & Bus. Services	19.4%	2.6%	-0.5%	27.6%	17.9%	4.5%
Pub. Administration	-3.5%	6.6%	-18.0%	19.6%	-3.6%	6.7%
Educ, Health & Other Serv.	2.6%	2.9%	6.2%	4.3%	2.8%	3.0%
HH hiring domestic help	10.9%	13.3%	40.5%	17.2%	38.9%	17.0%
Intl & Foreign Org.	1.3%	8.5%	-24.4%	52.4%	-6.9%	21.9%
Total	**1.5%**	**2.7%**	**5.0%**	**16.0%**	**2.1%**	**5.2%**

Source: EUS 1995-2003 & EUS 2005-2006

An examination of the distribution of employment by economic activity and nationality reveals major differences between the employment patterns of Jordanians and non-Jordanians. As shown in Figure 2.10, non-Jordanians are much more likely to be employed in agriculture, construction and domestic services. They are equally likely as Jordanians to be found in manufacturing and much less likely to be found in wholesale and retail trade, transport, storage and communications, finance and insurance, public administration and education and health. Even so, these figures probably understate the predominance of non-Jordanians in agriculture and construction, two sectors that are not well captured by the EUS.

Figure 2.10

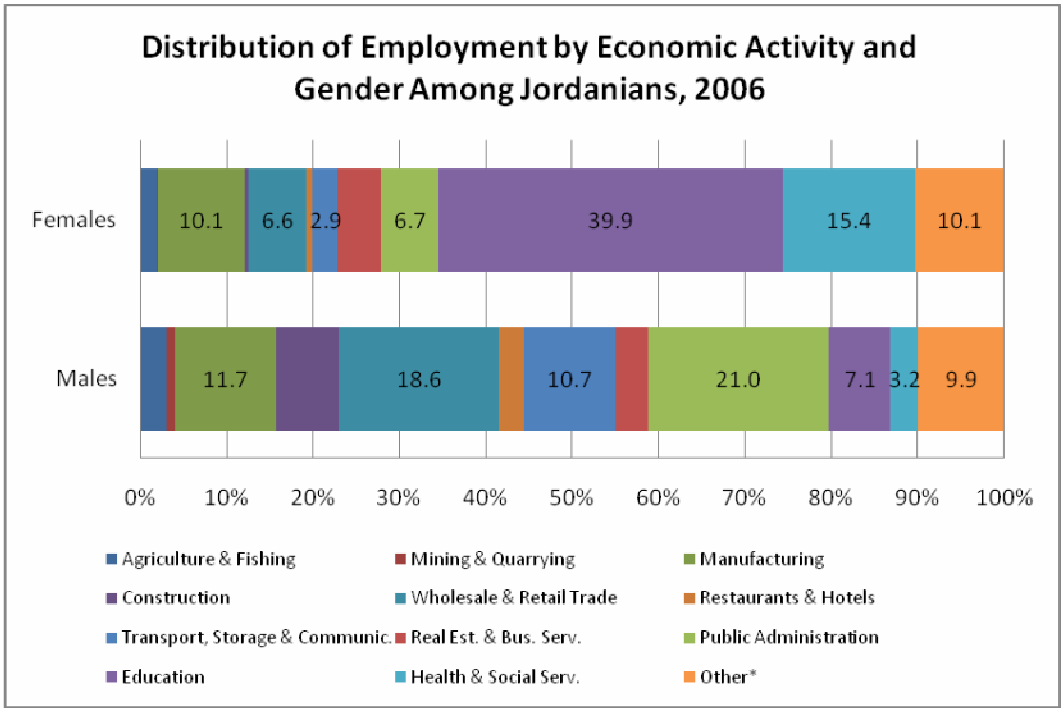


Source: Authors' calculations based on data from the EUS.

2.4.2 Gender Differences in Employment by Economic Activity among Jordanians

The distribution of employment by economic activity among Jordanians shows significant differences by gender. As shown in Figure 2.11, the distribution of employment by economic activity in 2006 among Jordanian males indicates large concentrations in four industry groups, namely manufacturing, wholesale and retail trade, transport, storage and communications and public administration. Jordanian female workers on the other hand are concentrated in the care economy, namely education, health and social services, and in public administration, wholesale and retail trade, and manufacturing. Nearly forty percent of female employment is in education alone. There is hardly any female employment in transport, storage and communications. The "other" category is quite sizable among female workers as well and is dominated by finance and insurance and other personal, community and social services.

Figure 2.11



*Other includes utilities, finance & insurance, other community, personal and social services, households hiring domestic workers, and workers in international organizations

Source: Authors' calculations based on data from EUS.

Annex Tables 7 and 8 present the distribution of male and female employment by economic activity and sector of ownership from 1995 to 2006. They show clear differences between public and private sectors. Indeed, in the public sector in 2006, men were concentrated into three main activities but the vast majority (59.4 percent) were working in public administration; 15.5 percent are employed in the educational sector and 10.2 percent in other community, social and personal services (where 81.6 percent of them work in the sewage and refuse disposal sector). More than 90 percent of Women in the public sector in 2006 were employed in only three activities, with the majority working in education (58.4 percent). The other two sectors are health and social services (18.6 percent) and public administration (13.9 percent).

In the private sector, almost three-quarters of employed men in 2006 are working in only four activities: wholesale and retail trade (28.6 percent), manufacturing (18.2 percent), transport, storage and communication (15.0 percent) and construction (10.6 percent). When decomposing the private manufacturing sector we find that men are employed mainly in the following sub sectors: food products and beverage (17.5 percent); furniture and other (16.5 percent); fabricated metal products (14.8 percent) and textile and garment (11.1 percent). It has to be noted that male employment in the textile and garment sector grew very fast and, consequently, its share went up from 7.4 percent in 1999 to 11.1 percent in 2006. Education is still the primary employer of women in the private sector, with a share of 22 percent in 2006, followed by the manufacturing sector (19.9 percent),

health and social services (12.4 percent) and wholesale and retail trade (12.4 percent). These four activities account for two-thirds of total female employment in the private sector in 2006. The desegregation of the manufacturing sector reveals that women are concentrated mostly in the textile and garment sector (59.8 percent) and in the chemical industry (19.0 percent).

2.4.3 Comparison EUS and ES

As the sampling frame of the ES changed in 1999, ES 2000 to ES 2003 are consistent and better capture private employment. Thus, the comparison of employment distribution between EUS and ES data is restricted to the period 2000-2003[11]. As mentioned in Section 2.2 above, the ES underestimate male employment whereas they better capture female employment as compared with the EUS.

Annex Tables 9 and 10 give the male employment size and distribution by economic activity according to the ES from 2000 to 2003. These tables show that the ES underestimate substantially (as compared to EUS) the number of men working in the following economic activities: construction (by 77 percent), transport, storage and communication (by 75 percent), mining and quarrying (by- 41 percent), and public administration (by -55 percent)[12]. Except for public administration, this underestimation is probably due to the fact that these activities tend to employ workers informally, who are difficult to capture by the ES. Consequently, the distribution of male employment by economic activity differs across data sources.

Annex Tables 11 and 12 give the female employment size and distribution by economic activity according to the ES from 2000 to 2003. They reveal that the ES better captures female employment in the following activities: public administration (by +63 percent), education (by +36 percent), health and social services (by +19 percent) and wholesale and retail trade (by +27 percent). Thus it appears that the EUS understates female employment in Jordan, possibly because of the reluctance of households to admit that their female members are working.

2.5 The Structure of Labor Demand by Occupation

2.5.1 The Evolution of Employment by Occupation and Nationality

The evolution of employment by occupation in Jordan exhibits some important changes in the two sub-periods under examination here. As shown in Figure 2.12, the most significant changes in the period from 1999 to 2002 are the increase in the share of professionals, service and sales workers and elementary occupations, and the sharp decline in the share of skilled agricultural and fishing workers. From 2002 to 2006, the most notable changes are the continued growth of the occupations at the two ends of the occupational distribution, namely professionals and elementary occupations.

---

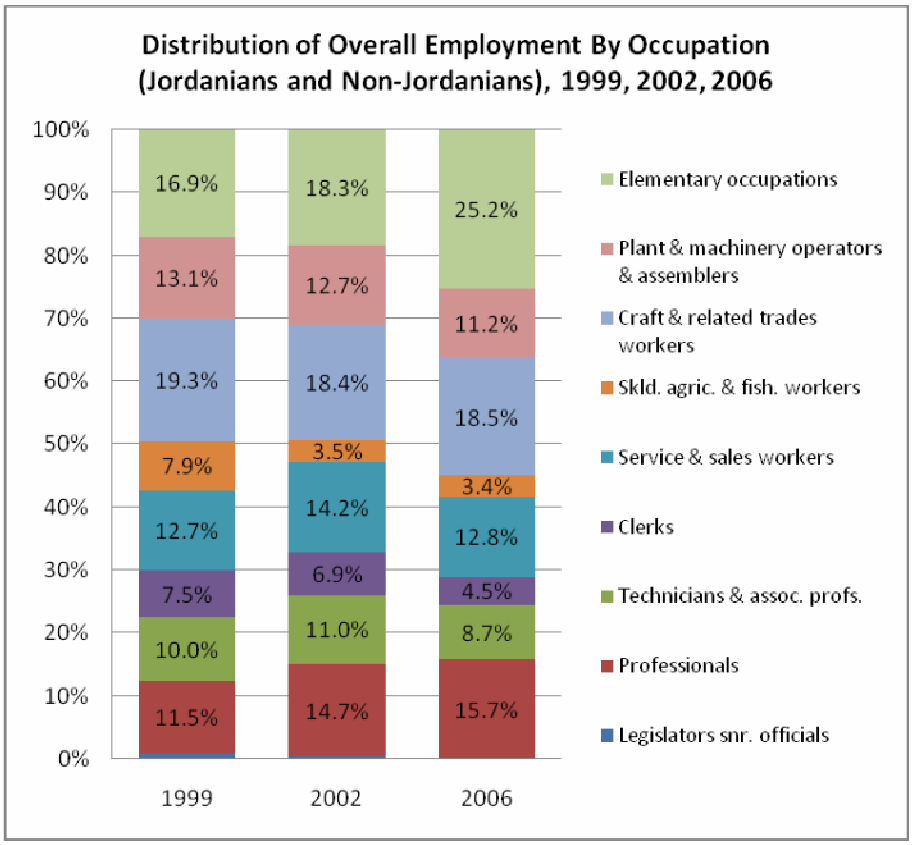
[11] In order to compare ES and EUS, the agricultural sector is excluded from the distribution of employment by economic activities in the EUS.

[12] However, EUS seems to overestimate the number of males working in public administration since 1997 as their number increased dramatically from 69499 in 1996 to 151978 in 1998.

This sub-period also saw a decline in the share of technicians and associated professionals, clerks, and craft and related trade workers.

According to the population census of 2004, professionals in Jordan are mainly marketing and public relation specialists, teachers in basic and secondary education, engineers, business professionals, and health professionals. The high growth rate of professionals might be reflecting the high demand in education in Jordan over the last decade.

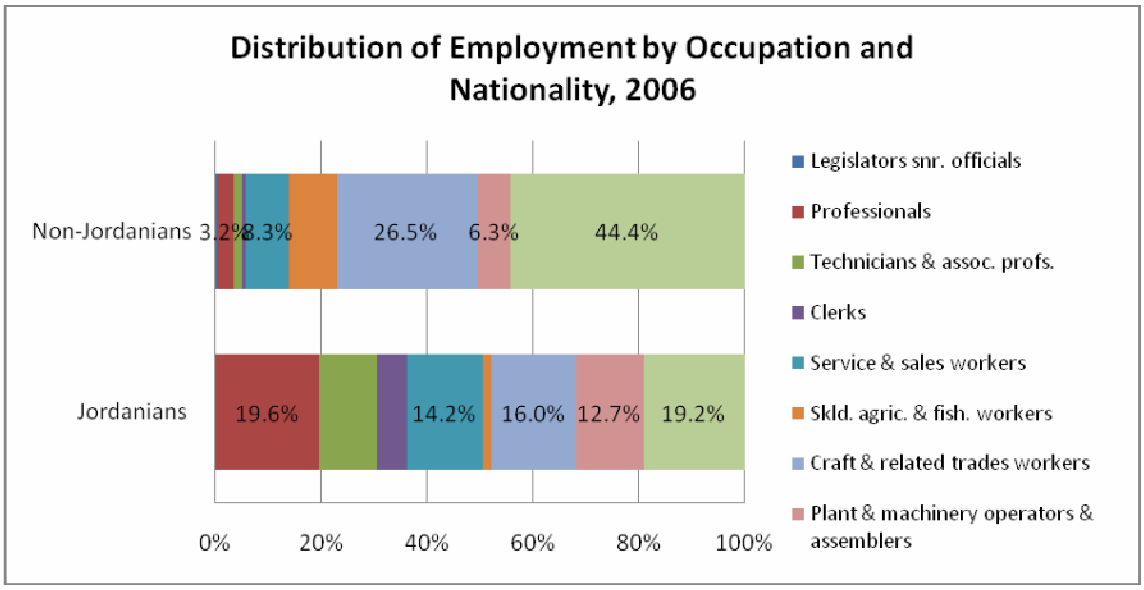
Figure 2.12



Source: Authors' calculations based on data from EUS.

A comparison of the occupational distribution of employment among Jordanians and non-Jordanians reveals significant differences. As shown in Figure 2.13, non-Jordanians in 2006 had very little representation among professionals, technicians and clerks. They are modestly represented among services and sales workers and plant and machinery operators, but are over-represented in elementary occupations, craft and related trade workers. Workers in elementary occupations, i.e. unskilled workers, make up nearly 45 percent of foreigners in Jordan in 2006, up from 25 percent in 1999. Thus the very rapid growth in demand for elementary occupations was essentially met by importing more foreign workers.

Figure 2.13



Source: Authors' calculations based on data from EUS.

Although the growth rate among non-Jordanian professionals is higher than among Jordanian professional, they start from such a low base that foreigners still make up a small fraction of professionals in Jordan. However, in the case of workers in elementary occupations, the more rapid growth rate of non-Jordanians is driving the more rapid growth rate overall. By our estimates, foreigners make up 42 percent of these workers in Jordan. The other significant occupational categories in which there appears to be large-scale substitution of foreign for Jordanian workers are skilled agricultural and fishing workers and services and sales workers. The number of Jordanians in these occupations has continued to decline or increase very slowly, whereas that of non-Jordanians has increased rapidly from 2002 to 2006 (see Table 2.7).

Table 2.7: Average Annual Growth Rate of Employment by Occupation and Nationality

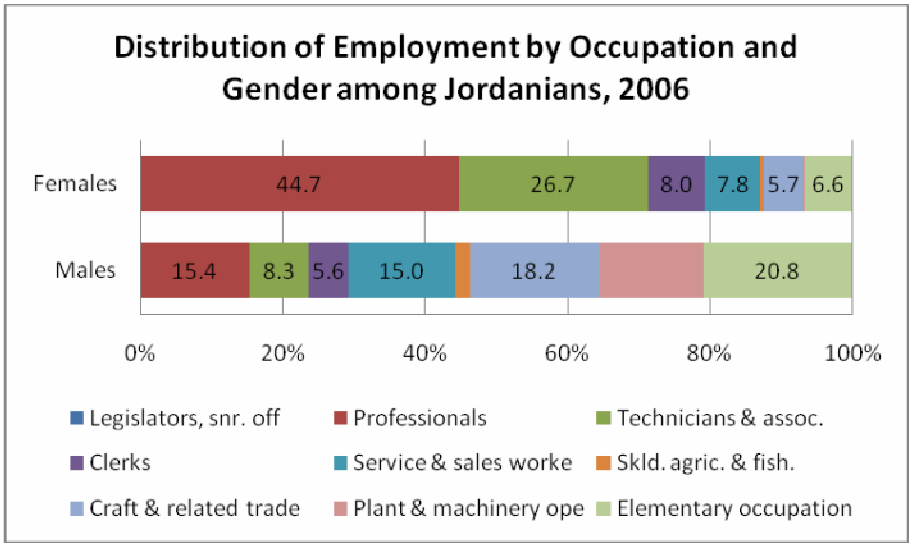
	Jordanians		Non-Jordanians		Total	
	1999-2002	2002-2006	1999-2002	2002-2006	1999-2002	2002-2006
Legislators snr. Officials	-27.3%	-40.9%	-39.0%	43.6%	-27.9%	-28.3%
Professionals	10.6%	6.7%	15.1%	11.8%	10.8%	6.9%
Technicians & assoc. profs.	5.2%	-1.3%	6.5%	10.5%	5.3%	-0.9%
Clerks	-0.7%	-5.6%	-7.3%	6.8%	-0.8%	-5.3%
Service & sales workers	7.2%	1.2%	-2.2%	10.8%	6.0%	2.4%
Skld. agric. & fish. Workers	-25.7%	-6.3%	-16.7%	16.3%	-22.5%	4.7%
Craft & related trades workers	1.0%	1.5%	-1.5%	15.9%	0.4%	5.4%
Plant & machinery operators & assemblers	0.8%	0.3%	0.8%	18.8%	0.8%	2.0%
Elementary occupations	-2.5%	11.6%	25.1%	17.5%	4.8%	13.9%
Total	**1.5%**	**2.7%**	**5.0%**	**16.0%**	**2.1%**	**5.2%**

Source: EUS 1995-2003 & EUS 2005-2006

2.5.2 Gender Differences in Employment by Occupation among Jordanians

As in the case of the distribution of employment by economic activity, there are stark differences along gender lines in the distribution of employment by occupation among Jordanians. As shown in Figure 2.14, women in Jordan are highly over-represented among occupations at the top of the occupational hierarchy and under-represented in blue collar occupations at the bottom of the hierarchy. Female professionals (mostly educators) make up about 45 percent of female employment among Jordanians, and technicians and associated professionals make up another 27 percent, as compared to 15 percent and 8 percent, respectively for Jordanian males. Besides the clerk category, women are under-represented in all other occupational categories.

Figure 2.14



The large share of professionals among employed Jordanian women is the result of a rapid increase in the share of professionals in female employment in recent years in Jordan. Indeed, the proportion of professionals increased from 28.5 percent in 1999 to 44.7 percent in 2006. This increase reflects the very high average annual growth rate of female professionals of +6.5 percent between 1999 and 2002 and +11.4 percent between 2002 and 2006. This is probably a consequence of the pressure on primary and secondary education as more than half of professional women are either teachers in basic education (30.9 percent) or secondary education (25.6 percent) according to the 2004 population census. The proportion of female service and sales workers (mostly vendors or personal service workers) and elementary occupations (mostly domestic and related helpers) also increased between 1999 and 2006. See Annex Tables 14 and 15 for a distribution of Jordanian female workers by occupation and sector from 1995 to 2006, as rendered by the EUS.

In contrast to what happened to professionals, the proportion of clerks among working women decreased substantially from 1999 to 2006, going down from 12.3 percent in 1999 to 8.0 percent in 2006, reflecting a rapid decline in the number of female clerks in the 2002-2006 period (-9.6 percent per annum on average). The 2004 Population Census shows that female clerks are either library and mail and related clerks (43.6 percent) or secretaries and keyboard-operators (41.8 percent). The proportion of female technicians and associate professionals also went down from 34.6 percent in

1999 to 26.7 percent in 2006. According to the 2004 population census, women working as technicians are primary education teaching associate professionals (34.8 percent), administrative associate professionals (28.9 percent), and nursing and midwifery associate professionals (16.7 percent). Finally, the share of craft and related trade workers in total female employment also declined from 6.2 percent to 5.7 percent over the period of analysis due to a negative growth rate over the period 2002-2006. Almost all these women (95.4 percent) are textile and garment workers according to the Population Census.

2.6 Conclusions

The period from 2002 to 2006 in Jordan saw an acceleration of economic growth that led to an acceleration of labor demand. Nevertheless, Jordanian workers benefitted only partially from this acceleration, due to the large influx of foreign workers that occurred during this period to meet ithe increased demand. Although the growth of overall employment in Jordan increased from 2.1 percent p.a. in 1999-2002 to 5.2 percent p.a. in 2002-2006, employment growth among Jordanians was much lower at 1.6 percent p.a. and 2.8 percent p.a., respectively. Of the 22 thousand jobs created by the economy, on average, in the 1999-2002 period, 37 percent went to non-Jordanians. With the acceleration of job growth to 55 thousand jobs p.a. in the 2002-2006 period, more than half the job growth (53%) went ot foreign workers. The growing role of foreign labor in the Jordanian economy probably explains the declining share of private sector employment among Jordanians. That share had risen from 1999 to 2001, but the trend was reversed thereafter. The Jordanian private sector continued to grow, but was increasingly relying on foreign workers to meet its labor needs.

Based on the limited data we have on employment by establishment size, we found that the most dynamic parts of the Jordanian labor market in terms of job growth were the very small firms of 1 to 4 workers and the medium establishments in the 20 to 49 worker category. All other size classes grew more slowly than overall employment.

Economic growth in Jordan in the 1999-2002 period was concentrated in manufacturing, construction, trade, and finance and insurance. Accordingly, employment in these industries grew faster than average during this period. In the 2002-2006 period, manufactuirng and construction slowed a little, but were still growing faster than average, trade speeded up and the toursim industry, as represented by restaurants and hotels, made a significant recovery after a period of sharp decline. Significant accelerations of growth during this period were also observed in transport, storage and communications and in real estate and business services. The pattern of growth in the 2002-2006 period resulted in rapid employment growth in agriculture, mining, utilities, construction, restaurants and hotels, finance and insurance, public administration and domestic service. However, Jordanians managed to capitalize on the growth of only a subset of these industries, and there was large-scale substitution of foreign workers for Jordanians in other industries. The employment of Jordanians grew in public utilities, restaurants and hotels, finance and insurance and public administration, whereas the increased demand for labor was met by foreign workers in agriculture,

mining, construction, and domestic service. On the occupational front a similar contrast existed between domestic and foreign workers. Domestic workers benefited from the growth in demand for professionals whereas the increased demand for unskilled workers in elementary occupations was essentially met by increased relaince on foreign labor.

Chapter 3: Comparison of Major Labor Market Indicators Between the 2004 Population Census and the 2003 and 2005 Employment and Unemployment Survey

This chapter aims at comparing major labor market indicators measured by two different household data sources in Jordan, namely the Employment and Unemployment Surveys (EUS) and the Population Census. The major concern is to explain why labor force participation and unemployment rates are much higher when measured by the most recent Population Census 2004[13] than by the EUS 2003 and EUS 2005[14]. In order to investigate this issue, we will look closely at labor force participation (LFP) rates by gender and urban/rural location are decomposed into unemployment rates, employment and unemployment ratios.

3.1 Data preparation:

A common file for EUS 2003, EUS 2005 and Census 2004 has been created to facilitate the comparison of major labor market indicators such as labor force participation, unemployment rate and employment ratios. This file uses a unique individual identification based on the survey or census year, the household geographical residency (governorate, district, sub-district, locality, area and neighborhood), the household code and the individual code within its household. Annex 31 contains the list of the common variables for each survey and Census. Questions regarding major labor market indicators such as current work status, employment status and unemployment are common to the three data sources and are based on international definitions. Also, both Census and EUS use the same reference period of one week preceding the interview. However, contrarily to the Census, the EUS contain more details on the unemployed regarding searching methods and reasons for not searching for a job.

3.2 Labor Force Participation Rates

This report uses two definitions of labor force participation. According to the standard definition an unemployed person is someone who is not working, available to work and searching for a job. In the broad definition the search criterion is released. So, labor force and unemployment rates are higher according to the broad definition as they include the discouraged unemployed.

Tables 3.1a and 3.1b present labor force participation rates by gender and urban/rural location according to EUS 2003, EUS 2005 and Census 2004.

[13] This report uses a 10 percent sample of the Population Census 2004.

[14] EUS 2004 has not been taken into consideration for this analysis as it is not comparable to other years of EUS.

Table 3.1a: LFP Rate by Gender and Urban/Rural Location (Standard Definition), Ages 15-64 (in percent)

	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
EUS 2003	67.4	12.3	39.9	62.7	10.1	36.8	66.4	11.8	39.3
Census 2004	71.1	19.4	45.6	69.1	22.0	45.8	70.7	19.9	45.6
EUS 2005	68.2	12.7	40.7	64.0	10.6	37.3	67.5	12.3	40.1

Table 3.1b: LFP Rate by Gender and Urban/Rural Location (Broad Definition), Ages 15-64 (in percent)

	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
EUS 2003	69.3	13.7	41.6	66.1	12.1	39.5	68.6	13.4	41.1
Census 2004	72.2	22.2	47.5	70.3	25.2	48.0	71.8	22.9	47.6
EUS 2005	70.1	14.5	42.5	66.8	12.6	39.7	69.5	14.1	42.0

On the one hand, overall labor force participation rates (standard definition) measured by both surveys (EUS 2003 and EUS 2005) are consistent. They show a very slight increase from 39.3 percent in 2003 to 40.1 percent in 2005. This growth is observed for both males and females and in both urban and rural areas. For instance, over the period 2003-2005, male LFP goes up from 66.4 to 67.5 percent while female LFP increases from 11.8 percent to 12.3 percent.

On the other hand, overall LFP measured by Census 2004 (45.6 percent) is much higher than the ones obtained using the EUS. This disparity is observed among both sexes and in both urban and rural locations. But, whereas LFP rates' gaps across data sources are small among males they are very large among females and in rural areas. For instance, male LFP rate in 2004 (Census year) reaches 70.7 percent compared to 66.4 percent in 2003 and 67.5 percent in 2005 (which represents a gap that ranges between 4.7 percent and 6.5 percent). Whereas female LFP measured by the Census reaches 19.9 percent compared to 11.8 percent in 2003 and 12.3 percent in 2005 (which represents a difference that ranges between 61.8 percent and 68.6 percent). Disparities across data sources are at maximum among rural women. Indeed, rural female LFP measured by Census 2004 (22.0 percent) is more than twice that obtained by EUS 2003 (10.1 percent) and by EUS 2005 (10.6 percent).

When the broad definition of LFP is used, disparities between census and EUS data are very similar. Thus, the type of definition used does not affect the results according to the different data sources.

3.3 Unemployment Rate

Tables 3.2a and 3.2b show that unemployment rates are also much higher when measured by the Census than by both EUS 2003 and 2005. Indeed, overall unemployment rate (standard definition) reaches 25.6 percent in 2004 compared to 14.4 percent with EUS 2003 and 14.6 percent with EUS 2005 which represents a difference of 77.8 percent between 2004 and 2005. This unemployment rate gap between data sources is observed for both men and women and in both urban and rural areas. But, as for LFP rates, disparities are larger among females than among males and in rural areas compared to urban areas. For example, male unemployment rate is equal to 19.6 percent in 2004 as compared to 13.3 percent in 2003 and 12.7 percent in 2005 which represents a gap across data sources that ranges between 47.4 percent and 54.3 percent. Whereas female unemployment rate measured by the population census reaches a very high level (47.4 percent) as compared to 20.5 percent measured by EUS 2003 and 25.5 percent by EUS 2005, representing a gap that varies between 85.9 percent and 131.2 percent. Disparities are similar across data sources between urban and rural females while they are larger among urban males compared to their rural counterparts. Very similar results are obtained when using the broad definition of unemployment (see table 3.2b).

Table 3.2a: Unemployment Rate by Gender and Urban/Rural Location (Standard Definition), Ages 15-64 (in percent)

	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
EUS 2003	12.4	19.2	13.5	16.8	26.5	18.2	13.3	20.5	14.4
Census 2004	17.6	43.2	23.0	27.0	60.5	35.0	19.6	47.4	25.6
EUS 2005	11.7	24.3	13.7	17.3	32.5	19.5	12.7	25.5	14.6

Table 3.2b: Unemployment Rate by Gender and Urban/Rural Location (Broad Definition), Ages 15-64 (in percent)

	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
EUS 2003	14.9	27.4	16.9	21.1	38.9	23.8	16.2	29.6	18.3
Census 2004	18.8	50.6	26.2	28.2	65.5	37.9	20.8	54.2	28.7
EUS 2005	14.1	33.6	17.4	20.8	43.2	24.3	15.2	35.1	18.6

3.4 Employment Ratios

Tables 3.3a, 3.3b, 3.3c and 3.3d present various employment ratios indicators by gender and urban/rural location measured by the Census and EUS. First, n contrast to LFP and unemployment rates, overall employment ratios do not vary a lot across data sources. However, the employment ratio measured by the Census is slightly lower among males (56.7 percent in 2004 compared to 59.0 percent in 2005) while it is slightly higher among females (10.2 percent in 2004 compared to 9.2 percent in 2005). Disparities are also larger in rural areas than in urban areas especially among females. For instance, employment ratio among rural females obtained by the Census is higher by 22.5 percent than the one obtained by EUS 2005, whereas the difference is only of 14.6 percent among urban females.

Table 3.3a: Employment Ratio by Gender and Urban/Rural Location, Ages 15-64 (in percent)

	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
EUS 2003	59.0	10.0	34.6	52.1	7.4	30.1	57.5	9.4	33.6
Census 2004	58.6	11.0	35.1	50.5	8.7	29.8	56.8	10.5	33.9
EUS 2005	60.2	9.6	35.1	52.9	7.1	30.0	59.0	9.2	34.2

Second, when decomposing the employment ratio into wage and non wage employment ratios (tables 3b and 3c), it is clear that the slight difference observed in overall employment ratios across data sources is only due to differences in wage employment ratio measurements. Indeed, non wage employment ratios almost did not vary between 2003 and 2005 and are almost the same whatever the data source used for both males and females and both urban and rural regions. The extremely low non wage employment ratios among women (ranging between 0.3 percent and 0.5 percent) reflects the fact that non wage employment represents a very small share of total employment (approximately 5 percent whatever the data source used). The vast majority of male employment is also mainly composed by wage employment (approximately 82 percent whatever the data source used). Thus, wage employment ratios disparities across data sources are due to differences in terms of wage employment ratios measurements.

Table 3.3b: Wage Employment Ratio by Gender and Urban/Rural Location, Ages 15-64 (in percent)

	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
EUS 2003	47.4	9.4	28.4	45.1	7.0	26.3	46.9	8.9	28.0
Census 2004	47.1	10.5	29.0	44.5	8.3	26.6	46.6	10.0	28.5
EUS 2005	48.6	9.1	29.0	46.2	6.8	26.5	48.2	8.7	28.5

Table 3.3c: Non Wage Employment Ratio by Gender and Urban/Rural Location, Ages 15-64 (in percent)

	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
EUS 2003	11.6	0.6	6.1	7.0	0.4	3.7	10.6	0.5	5.6
Census 2004	11.4	0.5	6.0	6.0	0.4	3.2	10.2	0.5	5.4
EUS 2005	11.7	0.6	6.1	6.7	0.3	3.5	10.8	0.5	5.7

Table 3.3d gives employment ratio outside agriculture by gender and urban/rural location. It clearly shows that employment ratios outside agriculture is almost the same as employment ratios, in particular at the national and urban levels, reflecting the very small share of agricultural activities in total employment in Jordan. Moreover, the comparison between Census 2004, EUS 2003 and EUS 2005 reveals very similar disparities across data sources to the ones obtained by employment and wage employment.

Table 3.3d: Employment Ratio Outside Agriculture by Gender and Urban/Rural Location, Ages 15-64 (in percent)

	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
EUS 2003	58.6	9.9	34.2	50.2	6.9	28.5	56.8	9.3	33.0
Census 2004	58.2	10.9	34.7	48.8	8.3	28.4	56.2	10.3	33.4
EUS 2005	59.8	9.5	34.7	51.0	6.9	28.5	58.3	9.1	33.6

3.5 Unemployment Ratios

The unemployment ratio measures the ratio of unemployment to the workforce (population aged between 15 and 64). Thus, the LFP rate is only the addition of employment and unemployment ratios.

Tables 3.4a and 3.4b present unemployment ratios by gender, urban and rural location according to Census and EUS data using the standard and broad definitions of unemployment. These tables clearly show the largest disparities across data sources. Indeed, overall unemployment ratio (standard definition) reaches 11.7 percent in 2004 which is approximately two times the one obtained in 2003 (5.7 percent) and the one obtained in 2005 (5.9 percent). These disparities are larger among women than among men and in rural areas compared to urban ones. For instance, female unemployment ratio obtained by the Census (9.4 percent) is almost four times the one obtained by EUS 2003 (2.4 percent) whereas male unemployment ratio in 2004 (13.9 percent) is higher by 56.2 percent than the one obtained by EUS 2003. Moreover, rural female unemployment ratio in 2003 (13.3 percent) is almost five times the one measured by EUS 2003.

Table 3.4a: Unemployment Ratio by Gender and Urban/Rural Location (Standard Definition), Ages 15-64 (in percent)

	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
EUS 2003	8.4	2.4	5.4	10.6	2.7	6.7	8.9	2.4	5.7
Census 2004	12.5	8.4	10.5	18.7	13.3	16.0	13.9	9.4	11.7
EUS 2005	8.0	3.1	5.6	11.1	3.4	7.3	8.5	3.1	5.9

Table 3. 4b: Unemployment Ratio by Gender and Urban/Rural Location (Broad Definition), Ages 15-64 (in percent)

	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
EUS 2003	10.3	3.8	7.0	13.9	4.7	9.4	11.1	4.0	7.5
Census 2004	13.6	11.2	12.4	19.9	16.5	18.2	14.9	12.4	13.7
EUS 2005	9.9	4.9	7.4	13.9	5.4	9.7	10.6	5.0	7.8

When using the broad definition of unemployment, disparities across data sources are quite similar even though smaller. Releasing or not the search criterion in defining unemployment does not affect seriously the comparison between data sources.

3.5 Conclusions

Even though the census and the EUS do use the same definitions and questions to measure employment and unemployment and consequently the labor force, the results obtained by Census 2004 are very different and higher than the ones obtained by EUS 2003 and EUS 2005. The decomposition of LFP rates into employment and unemployment ratios shows that disparities across data sources reflect disparities in both employment and unemployment measures. However, higher LFP rates by Census 2004 are mainly due to overestimation of unemployment among females and in particular among rural females. With a very large, typically less trained workforce administering the interviews, the census is less able to apply the international definition of unemployment which requires several precise criteria for someone to be considered unemployed. Therefore the EUS figures must be considered more reliable in this case.

Chapter 4: Estimation of a Wage Index for Jordan: 1994-1998 & 2000-2003

4.1 Introduction

This chapter analyzes the wage index trend in Jordan using the most recent establishment-level data available from the annual Employment Survey (ES). It aims at determining the trend in nominal and real wages by institutional sector, sector of economic activities, and occupation over the periods 1994-1998 & 2000-2003.

The results of the analysis reveal that real hourly wages have been fairly stable for Jordanians in the private sector in Jordan over the two sub-periods studied, but have fallen in the public sector. The decline in the public sector was more pronounced in 1994-1998 period than in 2000-2003 period, where they only dropped by 2 percent over the four-year period. Females have fared worse in terms of wage growth than males, especially in the private sector, with real female wages in that sector falling by 6.5 percent in 1994-98 and by 2.7 percent in 2000-2003.

There was also significant variation in wage trends by economic activity. Real wages increased significantly mining and quarrying, construction, restaurants and hotels, transport, storage and communications, and real estate and business services. They declined in finance and insurance, public administration, education and health and social services, and remained fairly stable in manufacturing, utilities, wholesale and retail trade.

Real wage trends by occupation also showed some important variations. During the 1994-98 period, the largest increases were recorded for legislators and senior officials and the greatest declines were recorded from technicians, skilled agricultural and fishing workers (which are not well represented in the ES), and service and sales workers. In the 2000-2003 period, the largest increases were for clerks, craft and related trade workers, and elementary occupations. Services and sales workers experienced a large increase from 2002 to 2003, making up for their losses in the 1990s, although this result should be treated with caution due to the frequent fluctuations in their wages. The occupation group that fared the worst from 2000-2003, was legislators and senior officials, who had fared the best in the previous period.

Section 4.2 presents the data preparation process for the creation of a common data file that pools all the available annual Employment Surveys into one data set. Section 2 explains the methodology used to estimate an hourly wage index that corrects for the changing composition of the workforce over time. Finally, the results are presented in the Section 3.

4.2 Data Preparation

The analysis presented in this paper is based on the micro data of the annual establishment-level Employment Survey (ES) carried out by the Jordanian Department of Statistics (DOS) over the period 1994-2003.

Compatibility of the Annual ES:

For compatibility purposes, the analysis is restricted to the following sub-periods: 1994-1998 and 2000-2003, which are considered separately. Indeed, in 1999, an Establishment Census was carried out by DOS and, as a result, the ES sampling frame has changed considerably. The 1999 ES is excluded from the analysis as it is not comparable in terms of accuracy or coverage with the ES from other years. The following ES surveys (2000-2003) used the same sample design based on the 1999 Establishment Census and are thus comparable. Since the conceptual framework of the ES changed once more in 2004, the wage index study is restricted to the 1994-1998 and 2000-2003 periods.

The scope of the ES:

The ES are nationally representative.

Sector of Ownership: all public enterprises are covered. Within the private sector, all enterprises with 50 and more employees are covered. Enterprises with fewer than 50 employees were sampled according to various sampling rates according to size from the frame provided by the 1999 establishment census. Appropriate weights are used to account for the sampling rate.

Nationality: Jordanians and foreigners are covered but non Jordanians workers seem to be underrepresented due to data collection difficulties.

Industry: the agricultural sector is excluded from the survey and most of the construction sector is not covered, as employment in these two sectors is mostly outside of fixed establishments.

Creation of a common data file:

The objective is to create a common data file for all Employment Surveys, 1994-2003. First, the variables' definitions and codes are checked and are given a unique name for all years. Second, all establishment years are appended in one data file. The common data file contains the following variables at the governorate, district, sub-district and locality levels: total employment by type of occupation and by sex; nationality; establishment legal status; sector of ownership; occupation; economic activity; wage; total number of working hours and regular and irregular bonuses

4.3 Wage Index Methodology

Computing the hourly wage index by sector involves four steps as described below.

First step: determining the hourly wage for each cell

$$HourlyWage^{t}_{ijkle} = \frac{Wage^{t}_{ijkle}}{h^{t}_{ijkle}} \qquad \text{where: } h^{t}_{ijkle} = \text{total working hours}$$

l	=	sex			
j	=	nationality	e	=	establishment
k	=	occupation	t	=	year
l	=	economic activity			

Second step: computing the average hourly wage

$$AW^{t}_{ijklm} = mean(hourlyWage^{t}_{ijkle})$$

$$\text{using as weights: } m^{t}_{ijkle} = h^{t}_{ijkle} * weight^{t}_{ijkle}$$

where m refers to an establishment size category. The averaging is therefore taking place over all cells in establishments in a given size category. This leads to a series of aggregated cells for each year indexed by sex, nationality, occupation, economic activity and establishment size.

Third step: computing the weighted average wage (WAW)

The weight is set by fixing the numbers of working hours in each aggregated cell to what it was in the reference year. This allows us to control for the composition of the workforce over time and thus compare wages across time while abstracting from fluctuations in composition of the workforce.

For the period 1994-1998, the reference year is 1998 and for the period 2000 – 2003, the reference year is 2003.

$$WAW^{t}_{ijklm} = q^{0}_{ijklm} AW^{t}_{ijklm}$$

$$q^{0}_{ijklm} = \frac{h^{0}_{ijklm}}{\sum_{ijklm} h^{0}_{ijklm}}$$

Fourth step: Wage Index for each sector

By aggregating over the other categories, it is possible to obtain wage indices by each of the relevant variables separately or in combination with each other. For example we can obtain the following indices:

- Wage Index by gender:

$$WI^t_i = \frac{\sum_{jklm} WAW^t_{ijklm}}{\sum_{jklm} WAW^0_{ijklm}}$$

- Wage Index by Economic Activity:

$$WI^t_l = \frac{\sum_{ijkm} WAW^t_{ijklm}}{\sum_{ijkm} WAW^0_{ijklm}}$$

- Wage Index by Nationality:

$$WI^t_j = \frac{\sum_{iklm} WAW^t_{ijklm}}{\sum_{iklm} WAW^0_{ijklm}}$$

- Wage Index by Occupation:

$$WI^t_k = \frac{\sum_{ijlm} WAW^t_{ijklm}}{\sum_{ijlm} WAW^0_{ijklm}}$$

Wage Index Results 1994-1998 & 2000-2003

4.4 Sector and Nationality

Table 4.1 presents the trend in the nominal hourly wage index by sector of ownership and nationality over the periods 1994-1998 and 2000-2003[15]. As the number of foreign workers in the public sector is very small, the analysis of wage index among foreigners is limited to the private sector. Table 4.1 shows that the nominal hourly wages is the highest in the public sector reaching JD 1.29 in 2003 which is around 1.5 time that of the private sector among Jordanians (JD 0.85) and more than twice that of foreign workers (JD 0.61).

[15] Results on foreign workers should be used with caution as foreign workers are underrepresented in the ES.

Table 4.1: Nominal Hourly Wage Index by Sector of Ownership and Nationality, 1994-1998 & 2000-2003

		1994	1995	1996	1997	1998	2000	2001	2002	2003
Nominal Hourly Wage (JD)										
Public sector	Jordanians	1.14	1.08	1.11	1.15	1.18	1.16	1.27	1.27	1.29
Private sector	Jordanians	0.81	0.83	0.88	0.93	0.93	0.79	0.83	0.84	0.85
	Foreigners	0.51	0.56	0.56	0.58	0.63	0.50	0.56	0.60	0.61
Nominal Hourly Wage Index (1994=100 for 1994-1998 & 2000=100 for 2000-2003)										
Public sector	Jordanians	100.0	94.0	96.7	100.1	103.4	100.0	109.1	109.2	111.3
Private sector	Jordanians	100.0	102.7	108.5	114.7	115.7	100.0	105.5	107.0	108.0
	Foreigners	100.0	108.2	109.4	113.5	121.9	100.0	113.2	121.2	122.2

As shown in Table 4.1 and in Figure 4.1, the hourly nominal wage has increased over the period 1994-2003 in both public and private sectors and among both Jordanians and foreigners. However, the wage index has increased more rapidly among private workers and in particular among foreign workers. In fact, it grew by 21.9% from 1994 to 1998 and by 22.2% from 2000 to 2003 among foreigners and by 15.7% over 1994-1998 and by 8.0% over 2000-2003 among Jordanian private workers. The growth is smaller in the public sector over the first period (only 3.4%) but is important over the second period (11.3%). Thus, the wage gap between public and private sectors has declined over the period 1994-1998 but has remained stable over the more recent period (2000-03).

Figure 4.1

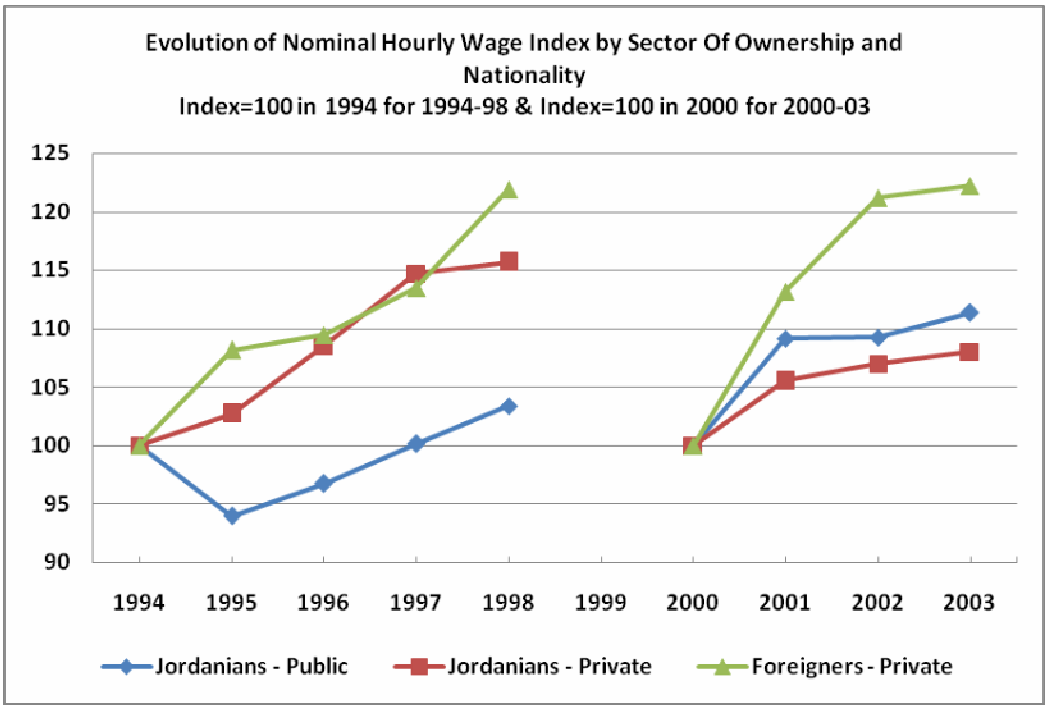


Table 4.2 presents the real hourly wage index that has been estimated based on the Consumer Price Index (CPI)[16]. Jordanian workers in the public sector have been affected by a real wage decline from 1994 to 1998 (by 10.7%) but their real wage increased by 5.7% over the 2000-03 period compensating a part of the initial loss. The real wage index has remained stable for Jordanian workers in the private sector. On the opposite, it rose significantly among foreign workers (by 5.3% from 1994 to 1998 and by 16.0% from 2000 to 2003).

Table 4.2: Real Hourly Wage Index by Sector of Ownership and Nationality, 1994-1998 and 2000-2003

		1994	1995	1996	1997	1998	2000	2001	2002	2003
CPI		100.0	102.3	109.0	112.3	115.8	100.0	101.8	103.6	105.3
Real Hourly Wage Index (1994=100 for 1994-1998 & 2000=100 for 2000-2003)										
Public sector	Jordanians	100.0	91.8	88.7	89.2	89.3	100.0	107.2	105.4	105.7
Private sector	Jordanians	100.0	100.3	99.6	102.1	99.9	100.0	103.7	103.2	102.5
	Foreigners	100.0	105.7	100.4	101.0	105.3	100.0	111.2	116.9	116.0

[16] Jordanian Department of Statistics

4.5 Sector and Gender

Table 4.3 presents the nominal hourly wage index by sector of ownership and gender among Jordanians over the period 1994-2003. It clearly shows a gender wage gap in favor of males in both public and private sectors. In 2003, the hourly wage index is around JD 1.31 for males compared to JD 1.25 for females in the public sector. In the private sector, the male wage is around JD 0.89 compared to only JD 0.71 for females that same year. The gender wage gap is larger in the private sector than in the public sector. In 2003, the male wage was higher than the female wage by 5.10% in the public sector, whereas in the private sector it is higher by 28.68%.

Table 4.3: Nominal Hourly Wage Index, Gender Wage Gap, by Sector of Ownership and Gender among Jordanians, 1994-1998 & 2000-2003:

		1994	1995	1996	1997	1998	2000	2001	2002	2003
Nominal Hourly Wage (JD)										
Public sector	Males	1.17	1.10	1.14	1.17	1.22	1.18	1.33	1.32	1.31
	Females	1.09	1.01	1.04	1.09	1.10	1.11	1.14	1.15	1.25
Private Sector	Males	0.82	0.85	0.90	0.95	0.96	0.82	0.86	0.87	0.89
	Females	0.74	0.74	0.78	0.83	0.81	0.68	0.72	0.73	0.71
Gender Wage Gap (in %)										
Public sector		7.20	8.36	8.46	7.29	9.53	6.01	14.38	12.92	5.10
Private sector		24.14	16.00	13.56	12.58	12.46	26.57	24.00	24.09	28.68
Nominal Hourly Wage Index (1994=100 for 1994-1998 & 2000=100 for 2000-2003)										
Public sector	Males	100.0	94.3	97.1	100.2	104.1	100.0	112.1	111.8	110.8
	Females	100.0	93.1	95.8	100.1	101.4	100.0	102.1	103.6	111.9
Private Sector	Males	100.0	103.1	109.1	115.3	117.1	100.0	105.7	107.0	108.7
	Females	100.0	100.4	105.8	111.7	109.4	100.0	105.0	107.1	104.4

Figure4.2

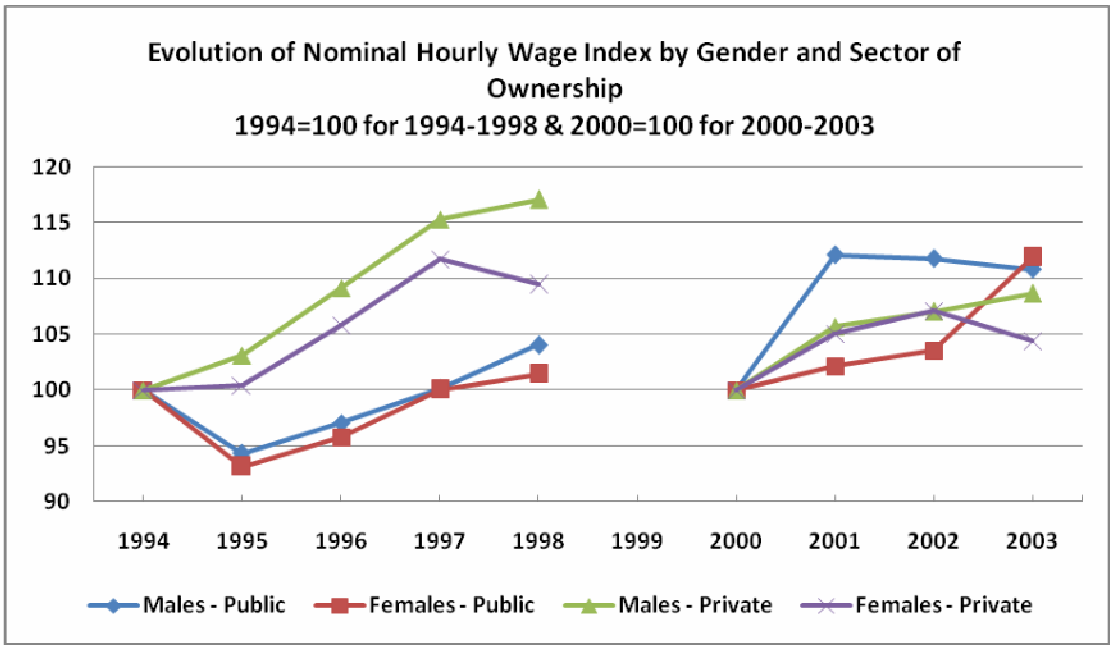


Table 4.3 and Figure 4.2 present the evolution of the nominal hourly wage index among Jordanians by sector and gender from 1994 to 1998 and from 2000 to 2003. They reveal that over the first period of analysis, the wage index for males and females followed a parallel trend in each sector (except from 1997 to 1998 in the private sector) growing faster in the private sector as seen above. However, the male growth rate is higher than the female one in both sectors, increasing the gender wage gap. Over the second period (2000-03), except from 2002 to 2003, the overall growth rate is smaller among females in the public sector and almost the same among males and females in the private sector.

Table 4.4 presents the real hourly wage index by sector and gender. It shows that the real wage index remained stable from 1994 to1998 only for men working in the private sector. On the contrary, public sector workers (men and women) and female employees in the private sector have suffered from a real wage decline (-10.1%, -12.4% and -5.5% and respectively).

Table 4.4: Real Hourly Wage Index by Sector and Gender, 1994-1998 & 2000-2003

		1994	1995	1996	1997	1998	2000	2001	2002	2003
CPI		100.0	102.3	109.0	112.3	115.8	100.0	101.8	103.6	105.3
Real Hourly Wage Index (1994=100 for 1994-1998 & 2000=100 for 2000-2003)										
Public sector	Males	100.0	92.1	89.1	89.2	89.9	100.0	110.2	107.8	105.2
	Females	100.0	91.0	87.9	89.1	87.6	100.0	100.4	99.9	106.2
Private Sector	Males	100.0	100.8	100.1	102.7	101.1	100.0	103.9	103.3	103.2
	Females	100.0	98.1	97.1	99.5	94.5	100.0	103.2	103.3	99.1

From 2000 to 2003, as the CPI increased at a slower pace, real hourly wages were increasing among males and females in the public sector (+ 5.2% and +6.2% respectively) and among male employees in the private sector (+3.2%) while they remained stable among females working in the private sector.

4.6 Sector and Economic activity

Table 4.5 shows that the hourly wage varies a lot by economic activity. It ranges between JD 0.66 in the wholesale and retail sector and JD 1.92 in the finance and insurance sector in 2003.

Table 4.5: Nominal Hourly Wage by Economic Activity among Jordanians, 1994-1998 & 2000-2003

Economic Activity	1994	1995	1996	1997	1998	2000	2001	2002	2003
Mining & Quarrying	1.22	1.39	1.58	1.58	1.54	1.55	1.83	1.73	1.70
Manuf.	0.63	0.67	0.71	0.74	0.75	0.72	0.75	0.75	0.80
Elect, Gas & Water	1.21	0.98	0.99	1.02	1.10	1.11	1.36	1.13	1.13
Construction	0.87	0.93	0.93	0.93	0.98	1.03	1.09	1.14	1.15
Wholesale & Retail Trade	0.75	0.81	0.83	0.90	0.90	0.62	0.65	0.61	0.66
Restaurants & Hotels	0.56	0.59	0.58	0.69	0.71	0.57	0.59	0.64	0.67
Transport, Storage & Communic.	1.14	1.19	1.19	1.19	1.19	1.19	1.37	1.34	1.41
Finance & Insurance	1.47	1.37	1.58	1.74	1.78	1.96	2.07	2.08	1.92
Real Est. & Bus. Serv.	0.92	0.99	0.97	0.92	0.97	1.02	1.05	1.10	1.07
Public Administration	1.03	0.92	0.97	0.98	1.01	0.96	1.03	1.05	1.00
Education	1.16	1.14	1.16	1.23	1.26	1.15	1.22	1.28	1.31
Health & Soc. Serv.	0.66	0.87	0.92	0.98	1.02	1.05	1.19	1.09	1.11
Other Community, Personal & Soc. Serv.	0.77	1.01	0.93	0.97	0.95	0.66	0.68	0.63	0.71

As shown in Annex Tables 17 & 18, the most rewarding sectors in terms of nominal hourly wage in the public sector are the following: real estate and business services (JD 2.02); mining and quarrying (JD 1.84) and finance and insurance (JD 1.82). In the private sector, the finance and insurance sector (JD 1.94) is by far the sector with the highest hourly wage.

On the opposite end, nominal hourly wages are the lowest in the wholesale and retail trade, public administration and in the restaurant and hotels sectors in both private and public sectors, reaching only JD 0.66 in the private sector. Wages are also very low in public administration and in the other community, personal and social services in the private sector.

The nominal wage varies a lot in the manufacturing sector across private and public sectors. Indeed, the wage index reaches a high of JD 1.62 in the public sector, whereas it is very low in the private sector (only JD 0.75).

Table 4.6: Nominal Hourly Wage Index by Economic Activity among Jordanians (1994=100 for 1994-1998 and 2000=100 for 2000-2003)

Economic Activity	1994	1995	1996	1997	1998	2000	2001	2002	2003
Mining & Quarrying	100.0	113.2	128.8	129.4	125.8	100.0	118.1	111.3	109.5
Manuf.	100.0	106.9	112.1	117.5	118.6	100.0	103.8	104.5	111.2
Elect, Gas & Water	100.0	80.9	81.7	84.0	90.3	100.0	122.6	101.6	101.8
Construction	100.0	106.7	106.2	106.3	112.4	100.0	106.0	110.7	111.8
Wholesale & Retail Trade	100.0	108.0	111.0	119.4	120.0	100.0	105.5	98.7	107.7
Restaurants & Hotels	100.0	104.2	103.3	122.7	125.3	100.0	103.7	111.9	117.0
Transport, Storage & Communic.	100.0	104.9	104.5	104.1	105.0	100.0	114.6	112.6	117.8
Finance & Insurance	100.0	92.9	107.4	118.3	120.6	100.0	105.3	106.3	98.1
Real Est. & Bus. Serv.	100.0	106.6	104.6	99.4	105.3	100.0	103.2	108.4	105.6
Public Administration	100.0	90.1	94.8	95.9	98.5	100.0	107.4	109.7	104.2
Education	100.0	97.9	99.9	105.5	108.6	100.0	106.1	111.8	113.9
Health & Soc. Serv.	100.0	132.7	139.7	148.9	155.4	100.0	113.6	104.1	105.3
Other Community, Personal & Soc. Serv.	100.0	131.1	120.5	125.4	122.9	100.0	103.2	96.0	108.2

Almost all economic activities have experienced a rise in the hourly nominal wage from 1994 to 1998 and from 2000 to 2003 as shown in Table 4.6. The only exceptions are public administration (-1.5%), utilities' sector (-9.7%) over the period 1994-1998 and the finance and insurance sector (-1.9%) over the period 2000-2003.

Over the first period of analysis, workers in the health and social services (+55%), mining and quarrying (+26%), restaurants and hotels (+25%), other community, personal and social services (+23%), finance and insurance (+21%), wholesale and retail trade (+20%) and manufacturing (+19%) sectors have benefited from important nominal wage growth. On the opposite, the nominal wage

only declined in the utilities' sector (-10%) and in public administration (-1.5%). From 2000 to 2003, the nominal wage increased or remained stable in all economic activities except in the finance and insurance sector.

Table 4.7 shows that the real hourly wage increased in the following economic activities over both 1994-1998 and 2000-2003 periods: restaurants and hotels sector (+8.2% and +11.1%), mining and quarrying (+ 8.7% and +3.9%), other community, personal and social services (+6.2% and +2.7%), manufacturing (+2.4% and +5.6%) and wholesale and retail trade (+3.6% and +2.3% respectively). From 2000 to 2003, the fluctuations are smaller. The real wage index has slightly increased or slightly decreased, except in the finance and insurance sector (-6.9%), transport, storage and communication sector (+11.9%), restaurant and hotels (+11.1%) and education (+8.1%).

Table 4.7: Real Hourly Wage Index by Economic Activity among Jordanians (1994=100 for 1994-1998 and 2000=100 for 2000-2003)

Economic Activity	1994	1995	1996	1997	1998	2000	2001	2002	2003
Mining & Quarrying	100.0	110.5	118.1	115.2	108.7	100.0	116.0	107.4	103.9
Manuf.	100.0	104.4	102.9	104.6	102.4	100.0	102.0	100.9	105.6
Elect, Gas & Water	100.0	79.1	74.9	74.8	78.0	100.0	120.5	98.0	96.7
Construction	100.0	104.2	97.4	94.7	97.1	100.0	104.1	106.8	106.2
Wholesale & Retail Trade	100.0	105.5	101.9	106.3	103.6	100.0	103.7	95.2	102.3
Restaurants & Hotels	100.0	101.8	94.8	109.3	108.2	100.0	101.9	107.9	111.1
Transport, Storage & Communic.	100.0	102.5	95.9	92.7	90.7	100.0	112.6	108.6	111.9
Finance & Insurance	100.0	90.7	98.5	105.3	104.2	100.0	103.5	102.5	93.1
Real Est. & Bus. Serv.	100.0	104.2	96.0	88.5	91.0	100.0	101.4	104.6	100.3
Public Administration	100.0	88.1	87.0	85.4	85.1	100.0	105.5	105.8	98.9
Education	100.0	95.6	91.7	94.0	93.8	100.0	104.2	107.9	108.1
Health & Soc. Serv.	100.0	129.7	128.2	132.6	134.3	100.0	111.6	100.4	100.0
Other Community, Personal & Soc. Serv.	100.0	128.1	110.6	111.6	106.2	100.0	101.4	92.6	102.7

4.7 Sector and Occupation

Table 4.8 reveal that, as expected, workers in low skilled occupations receive low nominal wages such as service and sales workers, elementary occupations, agricultural and fishing workers, and craft and related trade workers. In 2003, their nominal hourly wage ranges between JD 0.58 and JD 0.68. On the opposite end, legislators, senior officials and professionals are getting JD 2.96 and JD 1.52 per hour respectively that same year.

Disparities are more important in the private sector than in the public sector (see Annex Tables 23 & 26). Indeed, in 2003, the legislators' hourly wage is 6 times higher than the one obtained by workers in elementary occupations, compared to less than 4 times higher in the public sector.

Table 4.8: Nominal Hourly Wage by Occupation in the public Sector among Jordanians

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Clerks	0.86	0.89	0.94	0.96	0.99	0.84	0.90	0.90	0.92
Craft & related trades workers	0.61	0.64	0.68	0.69	0.71	0.60	0.61	0.60	0.68
Elementary occupations	0.56	0.60	0.61	0.62	0.66	0.54	0.60	0.55	0.63
Legislators, snr. Officials	1.98	2.05	2.10	2.39	2.40	3.06	3.17	3.32	2.96
Plant & machinery operators & assemblers	0.72	0.75	0.81	0.82	0.82	0.72	0.71	0.72	0.75
Professionals	1.29	1.29	1.32	1.39	1.43	1.29	1.42	1.44	1.52
Service & sales workers	0.62	0.59	0.61	0.63	0.63	0.49	0.51	0.49	0.58
Skld. Agric. & fish. Workers	0.59	0.41	0.59	0.44	0.44	-	0.69	0.52	0.68
Technicians & assoc. profs.	1.21	0.93	0.98	0.97	0.99	1.03	1.12	1.05	1.05

Table 4.9: Nominal Hourly Wage Index by Occupation in the public Sector among Jordanians

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Clerks	100.0	103.1	109.7	112.0	114.6	100.0	107.5	106.6	109.3
Craft & related trades workers	100.0	105.4	110.9	112.6	115.5	101.0	102.2	99.5	112.8
Elementary occupations	100.0	106.4	107.7	109.7	117.3	102.0	112.3	102.2	116.2
Legislators, snr. Officials	100.0	103.9	106.2	121.0	121.4	103.0	103.8	108.7	96.8
Plant & machinery operators & assemblers	100.0	104.6	111.8	114.2	113.3	104.0	99.2	100.7	104.2
Professionals	100.0	99.8	101.9	107.2	110.9	105.0	110.7	112.4	118.0
Service & sales workers	100.0	95.1	99.3	102.5	102.2	106.0	103.9	101.0	119.6
Skld. Agric. & fish. Workers	100.0	69.3	100.8	75.3	74.5	-	-	-	-
Technicians & assoc. profs.	100.0	76.9	81.2	80.8	82.1	108.0	107.9	101.7	101.9

Apart from agriculture workers and technicians and associate professionals, all workers benefited from a rise in the nominal hourly wage that ranges between 2% and 21% from 1994 to 1998 (Table 4.9). From 2000 to 2003, nominal hourly wages increased in all occupations except among legislators and senior officials. The rise ranges between 2% and 20%.

Table 4.10: Real Hourly Wage Index by Occupation in the public Sector among Jordanians

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Clerks	100.0	100.7	100.6	99.7	99.0	100.0	105.6	102.9	103.7
Craft & related trades workers	100.0	103.0	101.8	100.3	99.7	100.0	100.4	96.0	107.1
Elementary occupations	100.0	104.0	98.8	97.7	101.3	100.0	110.3	98.6	110.4
Legislators, snr. Officials	100.0	101.5	97.5	107.7	104.8	100.0	102.0	104.9	91.9
Plant & machinery operators & assemblers	100.0	102.2	102.6	101.6	97.9	100.0	97.5	97.2	99.0
Professionals	100.0	97.5	93.5	95.5	95.8	100.0	108.8	108.5	112.1
Service & sales workers	100.0	92.9	91.1	91.3	88.3	100.0	102.1	97.4	113.6
Skld. Agric. & fish. Workers	100.0	67.7	92.4	67.0	64.3	-	-	-	-
Technicians & assoc. profs.	100.0	75.1	74.5	71.9	70.9	100.0	106.0	98.1	96.8

Table 4.10 presents the trend in the real wage index from 1994 to 1998 and from 2000 to 2003. Over the second half of the nineties, the real wage remained stable or declined among all occupations except among the legislators and senior officials (+5%). The decline was particularly sharp among agriculture and fishing workers (-36%)[17] and technicians (-30%).

On the opposite, from 2000 to 2003, the real wage index increased in almost all occupations except among legislators (-9%) and technicians (-3%).

4.8 Conclusions

The main conclusions from the analysis of wage trends in Jordan is that private sector wages rose slightly faster than wages in the public sector in the previous decade, although they remain lower. Wages for foreign nationals in the private sector rose even faster although they started at a lower base. Wages for men in the private sector rose faster than for women, although the difference was not large. The largest increase in wages in the 1994-98 period occurred in the health and social services industry, followed by mining and quarrying and restaurant and hotels. In the 2000-03 period, the largest increases were in transport storage and communications, restaurants and hotels, and education. In terms of occupations, wages rose the most among senior officials and elementary occupations in 1994-98 and among services and sales workers, professionals, and elementary occupations in 2000-03. These results underline the dynamism of Jordan's service economy, especially the tourism sector, in recent years.

[17] This result could be due to the fact that agriculture and fishing workers are underrepresented in the establishment surveys.

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Annexes

Annex table 1: Distribution of Jordan's Population by Nationality, 1995-2006

Nationality	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Jordanians[1]	3881572	3994154	4105931	4216848	4324042	4427752	4538511	4649742	4765984	4882356	4994491	5109857
Egyptians[2]	123327	122099	120885	119682	118491	132294	181335	170049	171846	252636	314755	366176
Syrians[3]	32383	32971	33570	34179	34800	35432	36076	36731	37398	38077	38769	39473
Iraqis[3]	25731	27024	28381	29806	31303	32875	34526	36260	38081	39993	42002	44111
Other Arabs[3]	107139	109741	112407	115137	117934	120799	123733	126738	129817	132970	136200	139508
Non Arabs [4]	32080	34891	37948	41274	44890	48824	53102	57756	62817	84622	86619	99200
Total Non Jordanians	*320659*	*326726*	*333190*	*340078*	*347418*	*370224*	*428772*	*427534*	*439959*	*548300*	*618345*	*688469*
Total Population	**4202231**	**4320879**	**4439121**	**4556926**	**4671460**	**4797976**	**4967283**	**5077276**	**5205943**	**5430656**	**5612836**	**5798326**

Notes: [1] according to DOS projections

[2] projection according to Population Censuses 1994 and 2004 and corrected for the number of registrated workers since 2000

[3] projection according to Population Censuses 1994 and 2004

[4] projection according to Population Censuses 1994 and 2004 and corrected for the number of registrated workers since 2004

Annex table 2: Distribution of Jordan's Population by Nationality, 1995-2006

Nationality	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Jordanians1	92.4%	92.4%	92.5%	92.5%	92.6%	92.3%	91.4%	91.6%	91.5%	89.9%	89.0%	88.1%
Egyptians2	2.9%	2.8%	2.7%	2.6%	2.5%	2.8%	3.7%	3.3%	3.3%	4.7%	5.6%	6.3%
Syrians3	0.8%	0.8%	0.8%	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
Iraqis3	0.6%	0.6%	0.6%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%
Other Arabs3	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.4%	2.4%	2.4%
Non Arabs 4	0.8%	0.8%	0.9%	0.9%	1.0%	1.0%	1.1%	1.1%	1.2%	1.6%	1.5%	1.7%
Total Non Jordanians	*7.6%*	*7.6%*	*7.5%*	*7.5%*	*7.4%*	*7.7%*	*8.6%*	*8.4%*	*8.5%*	*10.1%*	*11.0%*	*11.9%*
Total Population	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Notes: [1] according to DOS projections

[2] projection according to Population Censuses 1994 and 2004 and corrected for the number of registrated workers since 2000

[3] projection according to Population Censuses 1994 and 2004

[4] projection according to Population Censuses 1994 and 2004 and corrected for the number of registrated workers since 2004

Annex table 3: Average Annual Growth Rate of the Population by Nationality, 1995-2006

Nationality	1995-2000	2000-2006	1995-2006
Jordanians[1]	2.7%	2.4%	2.5%
Egyptians[2]	1.4%	18.5%	10.4%
Syrians[3]	1.8%	1.8%	1.8%
Iraqis[3]	5.0%	5.0%	5.0%
Other Arabs[3]	2.4%	2.4%	2.4%
Non Arabs [4]	8.8%	12.5%	10.8%
Total Non Jordanians	*2.9%*	*10.9%*	*7.2%*
Total Population	**2.7%**	**3.2%**	**3.0%**

Notes: [1] according to DOS projections

[2] projection according to Population Censuses 1994 and 2004 and corrected for the number of registrated workers since 2000

[3] projection according to Population Censuses 1994 and 2004

[4] projection according to Population Censuses 1994 and 2004 and corrected for the number of registrated workers since 2004

Annex Table 4: Distribution of the Jordanian Population by Age Group, 1995, 1996, 2000, 2005 and 2006

	1995			1996			2000			2005			2006		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Male															
0-4	228205	71603	299808	227227	75822	303048	227472	68507	295979	241658	58069	299727	262384	37277	29966
5-9	214924	69062	283986	221000	71591	292590	237174	71571	308745	262073	58040	320113	271553	39954	31150
10-14	209034	66464	275498	211730	71020	282750	214418	68703	283121	260864	63797	324660	289044	41412	33045
15-19	193039	49256	242295	196375	58946	255321	210181	66208	276389	243648	57056	300704	275341	40480	31582
20-24	155794	29565	185359	152974	34084	187058	185254	56301	241555	218515	50256	268771	243361	34935	27829
25-29	121898	21596	143495	119793	22152	141945	139060	39133	178193	162441	36653	199093	179771	24834	20460
30-34	90081	16861	106942	92032	19775	111807	117676	29159	146835	131889	27427	159317	140172	17181	15735
35-39	64443	14032	78475	69024	15640	84663	91423	21233	112656	122428	23740	146168	130569	15091	14566
40-44	51508	13859	65367	54810	14546	69356	65883	13799	79681	97567	18255	115823	110859	12950	12380
45-49	43655	11318	54973	47680	12217	59897	51549	15055	66604	74319	12718	87037	81240	10000	9124
50-54	46773	10509	57282	48916	11742	60657	47953	11720	59673	54813	10655	65468	60454	8330	6878
55-59	40652	10740	51392	38457	9983	48440	43719	10444	54162	49425	9360	58785	53549	6115	5966
60-64	27948	7969	35917	32230	8462	40692	38308	8435	46743	47985	8514	56500	56422	5638	6206
65+	46715	13108	59823	48012	16971	64983	58734	15970	74704	80572	16361	96933	95565	12350	10791
Total	**1534670**	**405942**	**1940613**	**1560259**	**442950**	**2003209**	**1728802**	**496238**	**2225041**	**2048197**	**450903**	**2499100**	**2250285**	**306547**	**2556832**

EUS 1995,1996,2000,2005 and 2006

Annex Table 4: Distribution of the Jordanian population by age group, 1995, 1996, 2000, 2005 and 2006 (cont'd)

		1995			1996			2000			2005			2006		
		Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Female	**0-4**	214693	68023	282716	216959	74728	291687	222937	68419	291356	244505	55375	299880	255792	35954	291745
	5-9	203144	65771	268915	209448	73017	282465	230559	69537	300096	249414	57283	306697	268017	39645	307662
	10-14	200604	64616	265220	205502	66314	271817	207135	63117	270252	255995	59609	315605	277544	40391	317935
	15-19	180566	55723	236290	186630	56236	242867	203051	60817	263868	229872	54684	284556	256745	35944	292689
	20-24	156891	45791	202682	149599	43354	192953	169993	48909	218902	195113	45938	241050	216937	30131	247068
	25-29	125594	31066	156660	124927	36603	161531	142591	39077	181669	153304	36017	189321	168355	24462	192816
	30-34	98627	25003	123631	101254	27619	128873	122214	33117	155331	141101	30500	171601	150029	21035	171065
	35-39	69293	16861	86154	77248	17589	94836	93675	21816	115491	129851	26582	156433	137444	16727	154171
	40-44	51797	14783	66579	58566	15877	74443	72275	17832	90107	102182	18670	120852	118458	14525	132983
	45-49	52894	11664	64558	48440	13548	61988	52314	14055	66369	76342	14324	90666	86909	10633	97542
	50-54	43712	10452	54164	46586	11647	58233	52734	12893	65627	57137	11471	68608	64702	8579	73281
	55-59	35109	8777	43886	33609	9840	43449	42638	8612	51250	55352	8744	64096	58362	6234	64595
	60-64	26678	7103	33780	26858	6845	33704	35381	8509	43890	44321	8137	52458	52580	5701	58281
	65+	42846	12877	55723	40169	11932	52101	57558	14137	71695	70047	14967	85013	85550	11029	96579
	Total	**1502449**	**438510**	**1940959**	**1525795**	**465150**	**1990945**	**1705054**	**480849**	**2185903**	**2004535**	**442301**	**2446836**	**2197423**	**300990**	**2498413**

EUS 1995,1996,2000,2005 and 2006

Annex Table 4: Distribution of the Jordanian population by age group, 1995, 1996, 2000, 2005 and 2006 (cont'd)

		1995			1996			2000			2005			2006		
		Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Total	0-4	442899	139626	582525	444186	150550	594735	450409	136927	587336	486163	113444	599607	518176	73231	591407
	5-9	418069	134833	552902	430448	144608	575055	467733	141108	608841	511487	115323	626810	539570	79600	619170
	10-14	409638	131080	540718	417232	137334	554567	421552	131820	553372	516859	123406	640265	566588	81803	648391
	15-19	373606	104979	478585	383006	115182	498188	413232	127025	540258	473520	111740	585260	532086	76425	608511
	20-24	312685	75356	388042	302573	77438	380011	355246	105211	460457	413627	96194	509822	460299	65066	525365
	25-29	247492	52663	300155	244720	58756	303476	281651	78210	359862	315744	72670	388415	348125	49295	397420
	30-34	188708	41865	230573	193285	47394	240680	239890	62277	302167	272990	57927	330918	290201	38217	328418
	35-39	133736	30893	164629	146271	33228	179500	185098	43049	228147	252279	50322	302601	268013	31817	299831
	40-44	103305	28641	131946	113376	30424	143799	138158	31630	169788	199749	36925	236675	229316	27475	256792
	45-49	96548	22982	119531	96120	25765	121885	103863	29110	132973	150661	27042	177703	168149	20633	188782
	50-54	90485	20961	111447	95502	23388	118890	100688	24613	125300	111950	22126	134076	125156	16908	142064
	55-59	75761	19518	95278	72066	19823	91889	86356	19056	105412	104777	18104	122881	111911	12349	124259
	60-64	54626	15071	69697	59088	15307	74395	73689	16944	90633	92306	16651	108957	109002	11339	120341
	65+	89561	25985	115546	88181	28902	117084	116291	30107	146399	150619	31328	181947	181115	23380	204494
	Total	**3037119**	**844453**	**3881572**	**3086055**	**908099**	**3994154**	**3433857**	**977087**	**4410944**	**4052732**	**893204**	**4945936**	**4447708**	**607537**	**5055245**
	<15	**1270606**	**405539**	**1676145**	**1291866**	**432492**	**1724357**	**1339694**	**409855**	**1749549**	**1514509**	**352173**	**1866682**	**1624334**	**234634**	**1858968**
	<25	**1956897**	**585874**	**2542772**	**1977445**	**625112**	**2602556**	**2108172**	**642091**	**2750264**	**2401656**	**560107**	**2961764**	**2616719**	**376125**	**2992844**

Annex table 5:

Distribution of Employment by Sector of Ownership (Total) 15-64

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2005	2006
Jordanians												
	Public	249575	240074	315727	345855	352893	334034	316614	328675	339308	365771	382543
	Private	437464	481527	532157	490011	524988	544321	575353	592177	600163	628818	644440
	Total	687039	721600	847883	835866	877881	878355	891967	920852	939471	994590	1026984
Non-Jordanian												
	Public	6642	9228	7332	4537	6559	6539	7390	7310	5461	12244	12149
	Private	133476	133902	149142	149385	144245	153431	180588	168767	184962	287596	304932
	Total	140119	143130	156474	153922	150804	159971	187978	176077	190423	299840	317081
Total												
	Public	256217	249302	323059	350392	359452	340574	324005	335985	344769	378015	394692
	Private	570940	615428	681299	639396	669232	697752	755941	760943	785124	916415	949372
	Total	827158	864730	1004358	989788	1028684	1038326	1079946	1096929	1129893	1294430	1344064

Source: EUS 1995-2003 & EUS 2005-2006

Annex table 6:

Proportion of Workers in the Private Sector by Nationality, 1995-2006

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2005	2006
Jordanians	63.7%	66.7%	62.8%	58.6%	59.8%	62.0%	64.5%	64.3%	63.9%	63.2%	62.8%
Non-Jordanian	95.3%	93.6%	95.3%	97.1%	95.7%	95.9%	96.1%	95.8%	97.1%	95.9%	96.2%
Total	69.0%	71.2%	67.8%	64.6%	65.1%	67.2%	70.0%	69.4%	69.5%	70.8%	70.6%

Source: EUS 1995-2003 & EUS 2005-2006

Annex Table 7: Male Employment Distribution by Sector and Economic Activity, Ages 15-64, 1995-2006 (Column Percent)

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2005	2006
Agriculture & Hunting	**Public**	1.9	1.7	1.1	1.8	1.5	1.6	1.6	2.1	1.8	1.5	1.3
	Private	9.3	11.1	9.5	12.2	10.7	6.6	5.2	4.9	4.6	4.5	4.0
	Foreign	0.0	0.0	2.1	0.0	2.4	1.0	0.8	1.0	0.2	0.0	0.0
	Total	6.8	8.2	6.5	8.0	7.1	4.7	4.0	3.9	3.6	3.4	3.1
Fishing	**Public**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Private	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
	Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Mining & Quarrying	**Public**	4.4	0.3	0.3	0.2	0.4	0.4	0.4	0.3	0.2	0.1	0.0
	Private	0.7	2.4	2.4	3.6	3.4	2.6	2.4	1.7	2.1	1.8	1.5
	Foreign	0.0	1.0	1.7	1.7	0.8	1.6	0.9	0.0	0.0	0.0	0.0
	Total	*1.9*	*1.8*	*1.6*	*2.2*	*2.2*	*1.8*	*1.7*	*1.2*	*1.4*	*1.2*	*1.0*
Manufact.	**Public**	2.6	1.0	0.6	0.2	0.3	0.7	0.3	0.4	0.4	0.1	0.0
	Private	20.4	18.3	19.4	17.9	16.7	19.1	18.4	19.7	19.3	18.5	18.2
	Foreign	2.7	0.0	2.0	1.7	8.7	4.1	4.8	8.0	0.9	0.0	0.0
	Total	*14.4*	*13.0*	*12.7*	*10.8*	*10.4*	*12.4*	*12.2*	*13.1*	*12.7*	*12.0*	*11.7*
Electricity, Gas & Water	**Public**	5.0	6.4	3.7	3.7	4.0	3.1	2.8	2.7	3.1	2.7	2.2
	Private	0.6	0.7	1.5	1.7	1.3	1.3	1.2	1.2	1.3	1.5	1.5
	Foreign	0.0	1.0	1.8	0.0	1.6	1.3	1.5	0.0	0.0	0.0	0.0
	Total	*2.1*	*2.4*	*2.3*	*2.5*	*2.3*	*1.9*	*1.7*	*1.7*	*1.9*	*1.9*	*1.8*
Construct.	**Public**	1.7	2.4	1.9	1.4	1.5	2.3	2.2	1.7	1.5	1.4	1.6
	Private	13.0	12.0	10.9	11.3	11.8	10.4	10.6	10.1	10.3	10.3	10.6
	Foreign	0.0	0.0	1.5	3.3	6.3	9.2	6.7	3.8	5.8	2.3	0.0
	Total	*9.2*	*9.0*	*7.7*	*7.3*	*7.8*	*7.5*	*7.8*	*7.3*	*7.2*	*7.2*	*7.3*
Wholesale & Retail Trade	**Public**	1.3	1.3	0.8	0.6	0.8	0.9	0.6	0.7	0.5	0.5	0.7
	Private	26.8	27.3	27.2	24.1	25.9	29.1	29.3	29.3	29.4	29.6	28.6
	Foreign	4.0	3.9	2.7	3.3	11.0	14.6	6.1	7.2	9.0	0.0	0.0
	Total	*18.3*	*19.4*	*17.8*	*14.6*	*16.2*	*18.9*	*19.6*	*19.5*	*19.3*	*19.3*	*18.6*
Restaurants & Hotels	**Public**	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
	Private	3.1	2.9	3.3	3.1	3.4	3.6	4.3	4.0	4.1	4.1	4.4
	Foreign	0.0	0.0	0.0	1.7	0.0	2.3	1.8	1.6	0.1	0.0	0.0
	Total	*2.1*	*2.1*	*2.1*	*1.9*	*2.1*	*2.4*	*2.9*	*2.6*	*2.7*	*2.7*	*2.8*
Transport, Storage & Communic.	**Public**	9.5	8.0	2.8	5.3	6.9	5.0	4.9	4.8	3.8	3.4	2.9
	Private	14.9	12.9	13.2	14.3	14.7	14.3	14.5	15.1	15.2	15.3	15.0
	Foreign	1.3	1.0	0.0	1.7	3.1	2.7	3.7	1.2	2.5	0.0	0.0
	Total	*13.1*	*11.3*	*9.5*	*10.6*	*11.7*	*10.9*	*11.2*	*11.5*	*11.2*	*11.1*	*10.7*
Finance & Insurance	**Public**	0.7	0.9	0.5	0.1	0.4	0.5	0.4	0.5	0.3	0.2	0.3
	Private	2.5	2.5	2.5	2.2	2.3	2.3	2.5	2.2	2.0	2.2	2.8
	Foreign	0.0	0.0	1.8	0.0	0.8	0.4	0.7	0.7	0.4	0.0	0.0
	Total	*1.9*	*2.0*	*1.8*	*1.3*	*1.6*	*1.7*	*1.8*	*1.6*	*1.4*	*1.5*	*1.9*
Real Est. & Bus. Serv.	**Public**	1.7	1.8	0.7	0.5	1.2	1.5	1.7	1.4	1.4	0.6	0.2
	Private	3.1	3.6	3.8	2.7	2.9	3.9	4.5	4.8	4.2	4.8	5.7
	Foreign	0.0	1.0	0.0	0.0	4.7	8.0	6.6	1.3	3.5	0.0	0.0
	Total	*2.6*	*3.0*	*2.7*	*1.8*	*2.3*	*3.0*	*3.6*	*3.7*	*3.2*	*3.3*	*3.7*

Annex Table 7: Male Employment Distribution by Sector and Economic Activity, Ages 15-64, 1995-2006 (Column Percent) (contn'd)

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2005	2006
Public Administration	**Public**	34.8	37.5	59.1	61.0	55.2	53.9	53.3	53.7	54.8	57.8	59.4
	Private	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total	*11.4*	*11.1*	*20.7*	*24.4*	*21.0*	*19.3*	*17.8*	*18.1*	*18.7*	*20.1*	*21.0*
Education	**Public**	19.8	21.0	15.0	11.8	13.5	14.8	15.5	15.8	16.0	15.0	15.5
	Private	1.5	1.7	2.3	2.2	1.8	2.2	2.1	2.2	2.2	2.2	2.2
	Foreign	20.0	40.2	27.3	53.3	25.2	24.7	31.2	39.6	33.3	30.6	34.4
	Total	*7.6*	*7.7*	*6.9*	*6.3*	*6.4*	*6.9*	*6.8*	*7.0*	*7.1*	*6.8*	*7.1*
Health & Soc. Serv.	**Public**	7.0	7.2	5.7	5.2	5.5	5.6	5.8	5.8	5.7	6.2	5.8
	Private	1.6	1.6	1.8	1.5	1.5	1.5	1.7	1.7	1.8	1.8	1.8
	Foreign	1.3	3.9	3.1	10.0	4.7	4.0	7.1	6.7	6.0	11.3	5.1
	Total	*3.3*	*3.3*	*3.2*	*3.0*	*3.1*	*3.0*	*3.1*	*3.1*	*3.2*	*3.4*	*3.2*
Other Community, Personal & Soc. Serv.	**Public**	9.1	10.3	7.8	8.0	8.8	9.6	10.6	10.0	10.7	10.5	10.2
	Private	2.2	2.9	2.2	3.2	3.2	3.0	3.0	3.1	3.2	3.2	3.4
	Foreign	0.0	2.0	0.9	0.0	2.4	2.9	1.0	2.1	0.7	0.0	0.0
	Total	*4.4*	*5.1*	*4.1*	*5.1*	*5.3*	*5.4*	*5.5*	*5.4*	*5.7*	*5.7*	*5.8*
Households hiring domestic workers	**Public**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Private	0.3	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2
	Foreign	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.2	0.0	0.0	0.0
	Total	*0.2*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.1*	*0.1*
Intl & Foreign Organizations	**Public**	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Private	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Foreign	70.7	46.1	55.2	23.3	28.3	22.8	27.1	26.6	37.6	55.8	60.5
	Total	*0.6*	*0.4*	*0.3*	*0.1*	*0.3*	*0.2*	*0.2*	*0.2*	*0.3*	*0.3*	*0.4*
Total	**Public**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Private	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Foreign	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Annex Table 8: Female Employment Distribution by Sector and Economic Activity, Ages 15-64, 1995-2006 (Column Percent)

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2005	2006
Agriculture & Hunting	**Public**	0.3	0.2	0.6	0.8	0.4	0.9	0.7	1.2	0.6	0.9	1.0
	Private	8.2	17.0	9.5	14.6	12.0	6.6	4.8	3.9	3.3	2.9	2.8
	Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total	3.6	7.9	5.0	7.6	5.8	3.7	2.8	2.6	2.1	1.9	1.9
Mining & Quarrying	**Public**	0.1	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0
	Private	0.3	0.3	0.4	0.3	0.4	0.6	0.4	0.5	0.5	0.5	0.3
	Foreign	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0
	Total	*0.2*	*0.1*	*0.3*	*0.2*	*0.3*	*0.3*	*0.2*	*0.3*	*0.3*	*0.2*	*0.1*
Manufacturing	**Public**	0.2	0.2	0.5	0.1	0.3	0.4	0.2	0.1	0.2	0.0	0.0
	Private	25.3	18.0	20.6	18.0	18.4	20.3	21.6	18.6	20.2	18.5	19.9
	Foreign	0.0	0.0	0.0	3.3	0.0	0.0	0.0	1.1	1.5	0.0	0.0
	Total	*10.6*	*8.4*	*10.5*	*9.0*	*8.7*	*10.2*	*11.5*	*9.8*	*10.8*	*9.3*	*10.1*
Electricity, Gas & Water	**Public**	0.7	0.7	0.5	0.7	0.8	0.7	0.4	0.4	0.6	0.3	0.5
	Private	0.3	0.1	0.1	0.5	0.7	0.6	0.4	0.2	0.3	0.9	0.5
	Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total	*0.5*	*0.4*	*0.3*	*0.6*	*0.7*	*0.6*	*0.4*	*0.3*	*0.4*	*0.6*	*0.5*
Construction	**Public**	0.1	0.3	0.5	0.2	0.2	0.4	0.4	0.3	0.2	0.2	0.4
	Private	1.5	1.5	1.2	1.4	1.0	1.5	1.6	1.5	1.9	1.9	0.6
	Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total	*0.7*	*0.9*	*0.8*	*0.8*	*0.5*	*0.9*	*1.0*	*0.9*	*1.1*	*1.1*	*0.5*
Wholesale & Retail Trade	**Public**	0.4	0.4	1.3	0.5	0.6	0.3	0.4	0.3	0.2	0.4	0.7
	Private	9.4	10.8	10.2	10.8	10.7	13.5	11.5	12.6	10.4	12.1	12.4
	Foreign	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total	*4.1*	*5.2*	*5.8*	*5.6*	*5.3*	*6.8*	*6.2*	*6.8*	*5.6*	*6.3*	*6.6*
Restaurants & Hotels	**Public**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Private	0.6	0.9	1.0	0.8	0.8	1.6	0.8	1.0	1.4	0.6	1.5
	Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total	*0.2*	*0.4*	*0.5*	*0.4*	*0.4*	*0.8*	*0.4*	*0.5*	*0.8*	*0.3*	*0.7*
Transport, Storage & Communic.	**Public**	2.4	4.3	2.0	2.2	3.3	1.6	1.9	1.8	2.4	0.6	0.8
	Private	2.2	2.4	3.6	3.6	3.0	3.4	3.9	4.8	3.3	3.6	4.9
	Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total	*2.3*	*3.4*	*2.8*	*2.9*	*3.1*	*2.4*	*2.9*	*3.3*	*2.8*	*2.1*	*2.9*
Finance & Insurance	**Public**	0.6	0.7	0.2	0.3	0.6	0.9	0.8	0.6	0.8	0.8	0.1
	Private	7.3	5.4	6.0	5.0	4.4	5.5	6.8	5.2	7.1	5.3	6.0
	Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total	*3.4*	*2.8*	*3.1*	*2.6*	*2.4*	*3.2*	*3.9*	*3.0*	*4.1*	*3.0*	*3.1*
Real Est. & Bus. Serv.	**Public**	1.3	0.4	0.4	0.2	0.7	0.8	1.3	0.9	1.7	1.2	0.5
	Private	5.3	4.8	5.9	6.2	5.7	6.3	7.3	8.7	8.9	9.6	9.3
	Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total	*2.9*	*2.4*	*3.1*	*3.2*	*3.0*	*3.5*	*4.4*	*5.0*	*5.5*	*5.4*	*5.0*
Public Administration	**Public**	12.3	12.2	13.4	12.9	9.3	10.5	11.4	12.3	11.3	13.7	13.9
	Private	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
	Foreign	0.0	0.0	0.0	6.7	2.6	0.0	0.0	0.0	1.3	0.0	0.0
	Total	*7.1*	*6.4*	*6.5*	*6.4*	*4.9*	*5.1*	*5.3*	*5.6*	*5.2*	*6.6*	*6.7*

Annex Table 8: Female Employment Distribution by Sector and Economic Activity, Ages 15-64, 1995-2006 (Column Percent) (contn'd)

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2005	2006
Education	**Public**	62.4	62.1	60.8	60.8	64.4	62.0	61.5	60.1	59.6	58.6	58.4
	Private	20.6	18.6	23.6	20.1	25.1	22.0	21.1	25.0	23.9	24.3	22.0
	Foreign	85.7	69.0	61.8	70.0	66.7	54.0	67.8	50.4	52.4	59.4	64.4
	Total	*45.4*	*42.1*	*42.2*	*40.7*	*46.1*	*42.1*	*40.3*	*41.5*	*40.7*	*41.3*	*39.9*
Health & Soc. Serv.	**Public**	17.1	15.9	17.2	17.5	16.0	17.1	16.4	18.3	17.8	18.4	18.6
	Private	11.8	12.0	11.2	9.4	10.6	10.7	10.9	10.7	10.3	11.5	12.4
	Foreign	0.0	3.4	10.9	10.0	17.9	18.7	12.8	10.1	6.9	0.5	10.6
	Total	*14.7*	*13.9*	*14.1*	*13.3*	*13.5*	*13.9*	*13.4*	*14.1*	*13.7*	*14.7*	*15.4*
Other Community, Personal & Soc. Serv.	**Public**	1.9	2.6	2.3	3.6	3.3	4.4	4.5	3.8	4.5	4.8	5.3
	Private	5.8	5.6	5.2	8.1	6.1	6.2	6.1	5.6	5.4	5.7	6.4
	Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0
	Total	*3.5*	*4.0*	*3.7*	*5.8*	*4.5*	*5.2*	*5.3*	*4.7*	*4.9*	*5.2*	*5.8*
Households hiring domestic workers	**Public**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Private	1.5	2.3	1.4	1.2	1.2	1.2	2.9	1.6	2.5	2.6	0.9
	Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total	*0.6*	*1.1*	*0.7*	*0.6*	*0.6*	*0.6*	*1.5*	*0.8*	*1.3*	*1.3*	*0.5*
Intl & Foreign Organizations	**Public**	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Private	0.0	0.3	0.1	0.0	0.0	0.1	0.0	0.1	0.4	0.0	0.0
	Foreign	14.3	27.6	22.4	10.0	12.8	25.7	19.4	34.2	37.9	40.2	25.1
	Total	*0.2*	*0.5*	*0.3*	*0.2*	*0.2*	*0.5*	*0.3*	*0.7*	*0.7*	*0.6*	*0.3*
Total	**Public**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Private	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Foreign	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Annex Table 9: Male Employment by Sector and Economic Activity, 1994-1998 & 2000-2003 (ES)

Male		1994	1995	1996	1997	1998	2000	2001	2002	2003
Mining & Quarrying	Public	1951	6389	6553	6708	7006	7051	6884	5535	5442
	Private	538	898	899	1364	1510	1426	1163	939	1223.11
	Foreign									
	Total	*2489*	*7287*	*7452*	*8072*	*8516*	*8477*	*8047*	*6474*	*6665*
Manufacturing	Public	1001	1365	1331	1297	1299	4508	4387	4846	4925
	Private	30350	50061	58813	58743	59146	90877	88130	85082	98705.1
	Foreign						327	858		
	Total	*31351*	*51426*	*60144*	*60040*	*60445*	*95712*	*93375*	*89928*	*103630*
Electricity, Gas & Water	Public	7011	10742	11115	10613	10640	11196	11107	10439	10849
	Private	2897	2082	2132	2204	2259	2307	2293	2436	2513
	Foreign									
	Total	*9908*	*12824*	*13247*	*12817*	*12899*	*13503*	*13400*	*12875*	*13362*
Construction	Public		52	53	53	10		45	48	9
	Private	6861	8067	10135	9231	9325	16079	17457	16604	13719
	Foreign						163	540		
	Total	*6861*	*8119*	*10188*	*9284*	*9335*	*16242*	*18042*	*16652*	*13728*
Wholesale & Retail Trade	Public	635	625	691	650	667	833	774	817	820
	Private	14490	15176	16420	16656	17135	134147	128397	131661	151838
	Foreign						548			
	Total	*15125*	*15801*	*17111*	*17306*	*17802*	*135528*	*129171*	*132478*	*152658*
Restaurants & Hotels	Public	1002	933	1059	970	929	659	411	474	463
	Private	4086	6111	6883	6750	7008	18850	17259	16092	22733.7
	Foreign						82			
	Total	*5088*	*7044*	*7942*	*7720*	*7937*	*19591*	*17670*	*16566*	*23197*
Transport, Storage & Communic.	Public	10206	16951	20406	19186	18895	13028	12353	11654	11295
	Private	3635	4316	4934	4697	5337	12915	10007	13964	11165.3
	Foreign						88			
	Total	13841	21267	25340	23883	24232	26031	22360	25618	22460
Finance & Insurance	Public	1175	1373	1403	1567	1560	1268	1546	1594	1598
	Private	8846	10491	10915	10121	10330	12289	13265	11149	11137.7
	Foreign						581	56		
	Total	10021	11864	12318	11688	11890	14138	14867	12743	12736
Real Est. & Bus. Serv.	Public	640	652	687	1189	1210	731	790	909	940
	Private	3289	5144	6532	6406	7265	21162	20830	21175	26385.6
	Foreign						226	117		
	Total	3929	5796	7219	7595	8475	22119	21737	22084	27326
Public Administration	Public	39489	56331	56504	56312	58929	61911	64449	68336	68163
	Private									
	Foreign									
	Total	39489	56331	56504	56312	58929	61911	64449	68336	68163
Education	Public	19314	38973	42124	44102	45777	47258	48049	47717	52594
	Private	2019	6092	7079	7429	7773	9760	11946	10661	13745.9
	Foreign						19	37		
	Total	21333	45065	49203	51531	53550	57037	60032	58378	66340
Health & Soc. Serv.	Public		11632	11909	12460	13111	13014	14128	13295	13235
	Private	67	3019	3813	4155	4481	8386	8180	9890	10767.9
	Foreign						189	33		
	Total	67	14651	15722	16615	17592	21590	22341	23185	24003

Annex Table 9: Male Employment Size by Sector and Economic Activity, 1994-1998 & 2000-2003 (ES) (contn'd)

		1994	1995	1996	1997	1998	2000	2001	2002	2003
Other Community, Personal & Soc. Serv.	Public	112	2999	3352	3273	3332	2434	2062	2001	1725
	Private	34	1497	1935	2053	2169	11166	11100	10701	14274.7
	Foreign						48			
	Total	146	4496	5287	5326	5501	13648	13162	12702	16000
Total	**Public**	**82536**	**149017**	**157187**	**158380**	**163365**	**163891**	**166985**	**167665**	**172058**
	Private	**77113**	**112954**	**130490**	**129808**	**133738**	**339364**	**330027**	**330354**	**378209**
	Foreign	**0**	**0**	**0**	**0**	**0**	**2272**	**1642**	**0**	**0**
	Total	***159649***	***261971***	***287677***	***288188***	***297103***	***505527***	***498654***	***498019***	***550267***

Source: ES 1994-1998 & ES 2000-2003

Annex Table 10: Male Employment Distribution by Sector and Economic Activity, 1994-1998 & 2000-2003 (ES) (Column Percent)

		1994	1995	1996	1997	1998	2000	2001	2002	2003
Mining & Quarrying	Public	2.4	4.3	4.2	4.2	4.3	4.3	4.1	3.3	3.2
	Private	0.7	0.8	0.7	1.1	1.1	0.4	0.4	0.3	0.3
	Foreign						0.0	0.0		
	Total	1.6	2.8	2.6	2.8	2.9	1.7	1.6	1.3	1.2
Manufacturing	Public	1.2	0.9	0.8	0.8	0.8	2.8	2.6	2.9	2.9
	Private	39.4	44.3	45.1	45.3	44.2	26.8	26.7	25.8	26.1
	Foreign						14.4	52.2		
	Total	*19.6*	*19.6*	*20.9*	*20.8*	*20.3*	*18.9*	*18.7*	*18.1*	*18.8*
Electricity, Gas & Water	Public	8.5	7.2	7.1	6.7	6.5	6.8	6.7	6.2	6.3
	Private	3.8	1.8	1.6	1.7	1.7	0.7	0.7	0.7	0.7
	Foreign						0.0	0.0		
	Total	*6.2*	*4.9*	*4.6*	*4.4*	*4.3*	*2.7*	*2.7*	*2.6*	*2.4*
Construction	Public	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Private	8.9	7.1	7.8	7.1	7.0	4.7	5.3	5.0	3.6
	Foreign						7.2	32.9		
	Total	*4.3*	*3.1*	*3.5*	*3.2*	*3.1*	*3.2*	*3.6*	*3.3*	*2.5*
Wholesale & Retail Trade	Public	0.8	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5
	Private	18.8	13.4	12.6	12.8	12.8	39.5	38.9	39.9	40.1
	Foreign						24.1	0.0		
	Total	*9.5*	*6.0*	*5.9*	*6.0*	*6.0*	*26.8*	*25.9*	*26.6*	*27.7*
Restaurants & Hotels	Public	1.2	0.6	0.7	0.6	0.6	0.4	0.2	0.3	0.3
	Private	5.3	5.4	5.3	5.2	5.2	5.6	5.2	4.9	6.0
	Foreign						3.6	0.0		
	Total	*3.2*	*2.7*	*2.8*	*2.7*	*2.7*	*3.9*	*3.5*	*3.3*	*4.2*
Transport, Storage & Communic.	Public	12.4	11.4	13.0	12.1	11.6	7.9	7.4	7.0	6.6
	Private	4.7	3.8	3.8	3.6	4.0	3.8	3.0	4.2	3.0
	Foreign						3.9	0.0		
	Total	8.7	8.1	8.8	8.3	8.2	5.1	4.5	5.1	4.1
Finance & Insurance	Public	1.4	0.9	0.9	1.0	1.0	0.8	0.9	1.0	0.9
	Private	11.5	9.3	8.4	7.8	7.7	3.6	4.0	3.4	2.9
	Foreign						25.6	3.4		
	Total	6.3	4.5	4.3	4.1	4.0	2.8	3.0	2.6	2.3
Real Est. & Bus. Serv.	Public	0.8	0.4	0.4	0.8	0.7	0.4	0.5	0.5	0.5
	Private	4.3	4.6	5.0	4.9	5.4	6.2	6.3	6.4	7.0
	Foreign						9.9	7.2		
	Total	2.5	2.2	2.5	2.6	2.9	4.4	4.4	4.4	5.0
Public Administration	Public	47.8	37.8	35.9	35.6	36.1	37.8	38.6	40.8	39.6
	Private	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Foreign						0.0	0.0		
	Total	24.7	21.5	19.6	19.5	19.8	12.2	12.9	13.7	12.4
Education	Public	23.4	26.2	26.8	27.8	28.0	28.8	28.8	28.5	30.6
	Private	2.6	5.4	5.4	5.7	5.8	2.9	3.6	3.2	3.6
	Foreign						0.8	2.3		
	Total	13.4	17.2	17.1	17.9	18.0	11.3	12.0	11.7	12.1

Annex Table 10: Male Employment Distribution by Sector and Economic Activity, 1994-1998 & 2000-2003 (ES) (Column Percent) (contn'd)

		1994	1995	1996	1997	1998	2000	2001	2002	2003
Health & Soc. Serv.	Public	0.0	7.8	7.6	7.9	8.0	7.9	8.5	7.9	7.7
	Private	0.1	2.7	2.9	3.2	3.4	2.5	2.5	3.0	2.8
	Foreign						8.3	2.0		
	Total	0.0	5.6	5.5	5.8	5.9	4.3	4.5	4.7	4.4
Other Community, Personal & Soc. Serv.	Public	0.1	2.0	2.1	2.1	2.0	1.5	1.2	1.2	1.0
	Private	0.0	1.3	1.5	1.6	1.6	3.3	3.4	3.2	3.8
	Foreign						2.1	0.0		
	Total	0.1	1.7	1.8	1.8	1.9	2.7	2.6	2.6	2.9
Total	**Public**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Private	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Foreign						**100.0**	**100.0**		
	Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Source: ES 1994-1998 & ES 2000-2003

Annex Table 11: Female Employment by Sector and Economic Activity, 1994-1998 & 2000-2003 (ES)

Female		1994	1995	1996	1997	1998	2000	2001	2002	2003
Mining & Quarrying	Public	69	175	177	204	247	229	221	229	212
	Private	4	4	4	18	16	27	16	11	22
	Foreign						2			
	Total	*73*	*179*	*181*	*222*	*263*	*258*	*237*	*240*	*234*
Manufacturing	Public	88	116	128	117	127	186	210	213	216
	Private	4296	6486	7948	8265	8920	14399	12667	13131	15596
	Foreign						471	1117		
	Total	*4384*	*6602*	*8076*	*8382*	*9047*	*15056*	*13994*	*13344*	*15812*
Electricity, Gas & Water	Public	232	464	455	439	390	543	417	543	606
	Private	107	79	86	96	103	107	110	117	116
	Foreign									
	Total	*339*	*543*	*541*	*535*	*493*	*650*	*527*	*660*	*722*
Construction	Public		2	2	2	2	1	2	2	
	Private	208	387	406	438	395	801	682	735	653
	Foreign						7	17		2
	Total	*208*	*389*	*408*	*440*	*397*	*809*	*701*	*737*	*655*
Wholesale & Retail Trade	Public	164	186	216	210	194	218	249	222	219
	Private	1368	1435	1507	1641	1466	9413	9647	7955	9095
	Foreign						39			
	Total	*1532*	*1621*	*1723*	*1851*	*1660*	*9670*	*9896*	*8177*	*9314*
Restaurants & Hotels	Public	110	75	84	73	64	48	23	26	26
	Private	336	340	400	313	328	638	711	642	1053
	Foreign						3			
	Total	*446*	*415*	*484*	*386*	*392*	*689*	*734*	*668*	*1079*
Transport, Storage & Communic.	Public	1632	1731	2263	2613	2699	1478	1492	1443	1262
	Private	356.818	505.015	492.271	550.554	615.857	1662.66	1191.39	2038.31	1286.58
	Foreign						20			
	Total	*1989*	*2236*	*2755*	*3164*	*3315*	*3161*	*2683*	*3481*	*2549*
Finance & Insurance	Public	534	596	593	635	642	605	592	687	694
	Private	2780	3537	3726	3523	3911	4402	4875	4283	4540
	Foreign						321	49		
	Total	*3314*	*4133*	*4319*	*4158*	*4553*	*5328*	*5516*	*4970*	*5234*
Real Est. & Bus. Serv.	Public	131	132	131	272	250	164	218	253	278
	Private	583	623	789	969	918	4825	4799	7151	6887
	Foreign						45	45		
	Total	*714*	*755*	*920*	*1241*	*1168*	*5035*	*5062*	*7404*	*7165*
Public Administration	Public	6061	7244	7529	7243	7410	8679	8871	9804	11169
	Private									
	Foreign									
	Total	*6061*	*7244*	*7529*	*7243*	*7410*	*8679*	*8871*	*9804*	*11169*
Education	Public	16835	38950	41947	44592	46429	49619	50896	52667	50965
	Private	3060	8757	10457	11002	11180	15830	15072	18581	21828
	Foreign						149	125		
	Total	*19895*	*47707*	*52404*	*55594*	*57609*	*65598*	*66093*	*71248*	*72793*

Annex Table 11: Female Employment by Sector and Economic Activity, 1994-1998 & 2000-2003 (ES) (contn'd)

		1994	1995	1996	1997	1998	2000	2001	2002	2003
Health & Soc. Serv.	Public		9270	9642	10178	10595	11317	11353	10852	10630
	Private	90	2773	4053	4139	4124	8472	9187	10011	10808
	Foreign						216			
	Total	*90*	*12043*	*13695*	*14317*	*14719*	*20005*	*20540*	*20863*	*21438*
Other Community, Personal & Soc. Serv.	Public	20	358	373	363	401	347	332	318	320
	Private		302.583	258.976	300.883	404.642	4604.39	3409.04	3727	6311.28
	Foreign						25			
	Total	*20*	*661*	*632*	*664*	*806*	*4976*	*3741*	*4045*	*6631*
Total	**Public**	**25876**	**59299**	**63540**	**66941**	**69450**	**73434**	**74876**	**77259**	**76597**
	Private	**13188**	**25229**	**30125**	**31255**	**32382**	**65181**	**62367**	**68383**	**78197**
	Foreign	**0**	**0**	**0**	**0**	**0**	**1299**	**1353**	**0**	**2**
	Total	***39064***	***84528***	***93665***	***98196***	***101832***	***139914***	***138597***	***145642***	***154796***

Source: ES 1994-1998 and ES 2000-2003

Annex Table 12: Female Employment Distribution by Sector and Economic Activity, 1994-1998 & 2000-2003 (ES) (Column Percent)

		1994	1995	1996	1997	1998	2000	2001	2002	2003
Mining & Quarrying	Public	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3
	Private	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
	Foreign						0.2	0.0		0.0
	Total	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2
Manufacturing	Public	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
	Private	32.6	25.7	26.4	26.4	27.5	22.1	20.3	19.2	19.9
	Foreign						36.3	82.6		0.0
	Total	*11.2*	*7.8*	*8.6*	*8.5*	*8.9*	*10.8*	*10.1*	*9.2*	*10.2*
Electricity, Gas & Water	Public	0.9	0.8	0.7	0.7	0.6	0.7	0.6	0.7	0.8
	Private	0.8	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1
	Foreign						0.0	0.0		0.0
	Total	*0.9*	*0.6*	*0.6*	*0.5*	*0.5*	*0.5*	*0.4*	*0.5*	*0.5*
Construction	Public	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Private	1.6	1.5	1.3	1.4	1.2	1.2	1.1	1.1	0.8
	Foreign						0.6	1.3		100.0
	Total	*0.5*	*0.5*	*0.4*	*0.4*	*0.4*	*0.6*	*0.5*	*0.5*	*0.4*
Wholesale & Retail Trade	Public	0.6	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	Private	10.4	5.7	5.0	5.2	4.5	14.4	15.5	11.6	11.6
	Foreign						3.0	0.0		0.0
	Total	*3.9*	*1.9*	*1.8*	*1.9*	*1.6*	*6.9*	*7.1*	*5.6*	*6.0*
Restaurants & Hotels	Public	0.4	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
	Private	2.5	1.3	1.3	1.0	1.0	1.0	1.1	0.9	1.3
	Foreign						0.2	0.0		0.0
	Total	*1.1*	*0.5*	*0.5*	*0.4*	*0.4*	*0.5*	*0.5*	*0.5*	*0.7*
Transport, Storage & Communic.	Public	6.3	2.9	3.6	3.9	3.9	2.0	2.0	1.9	1.6
	Private	2.7	2.0	1.6	1.8	1.9	2.6	1.9	3.0	1.6
	Foreign						1.6	0.0		0.0
	Total	*5.1*	*2.6*	*2.9*	*3.2*	*3.3*	*2.3*	*1.9*	*2.4*	*1.6*
Finance & Insurance	Public	2.1	1.0	0.9	0.9	0.9	0.8	0.8	0.9	0.9
	Private	21.1	14.0	12.4	11.3	12.1	6.8	7.8	6.3	5.8
	Foreign						24.7	3.6		0.0
	Total	*8.5*	*4.9*	*4.6*	*4.2*	*4.5*	*3.8*	*4.0*	*3.4*	*3.4*
Real Est. & Bus. Serv.	Public	0.5	0.2	0.2	0.4	0.4	0.2	0.3	0.3	0.4
	Private	4.4	2.5	2.6	3.1	2.8	7.4	7.7	10.5	8.8
	Foreign						3.5	3.3		0.0
	Total	*1.8*	*0.9*	*1.0*	*1.3*	*1.1*	*3.6*	*3.7*	*5.1*	*4.6*
Public Administration	Public	23.4	12.2	11.8	10.8	10.7	11.8	11.8	12.7	14.6
	Private	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Foreign						0.0	0.0		0.0
	Total	*15.5*	*8.6*	*8.0*	*7.4*	*7.3*	*6.2*	*6.4*	*6.7*	*7.2*
Education	Public	65.1	65.7	66.0	66.6	66.9	67.6	68.0	68.2	66.5
	Private	23.2	34.7	34.7	35.2	34.5	24.3	24.2	27.2	27.9
	Foreign						11.5	9.2		0.0
	Total	*50.9*	*56.4*	*55.9*	*56.6*	*56.6*	*46.9*	*47.7*	*48.9*	*47.0*

Annex Table 12: Female Employment Distribution by Sector and Economic Activity, 1994-1998 & 2000-2003 (ES) (Column Percent) (contn'd)

		1994	1995	1996	1997	1998	2000	2001	2002	2003
Health & Soc. Serv.	Public	0.0	15.6	15.2	15.2	15.3	15.4	15.2	14.0	13.9
	Private	0.7	11.0	13.5	13.2	12.7	13.0	14.7	14.6	13.8
	Foreign						16.6	0.0		0.0
	Total	*0.2*	*14.2*	*14.6*	*14.6*	*14.5*	*14.3*	*14.8*	*14.3*	*13.8*
Other Community, Personal & Soc. Serv.	Public	0.1	0.6	0.6	0.5	0.6	0.5	0.4	0.4	0.4
	Private	0.0	1.2	0.9	1.0	1.2	7.1	5.5	5.5	8.1
	Foreign						1.9	0.0		0.0
	Total	*0.1*	*0.8*	*0.7*	*0.7*	*0.8*	*3.6*	*2.7*	*2.8*	*4.3*
Total	**Public**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Private	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Foreign						**100.0**	**100.0**		**100.0**
	Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Source: ES 1994-1998 and ES 2000-2003

Annex Table 13: Male Employment Size and Distribution by Occupation, Ages 15-64, 1995-2006

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2005	2006
Legislators, snr. Officials	Public	5312	7844	8205	4975	5178	2572	2768	1981	1263	130	387
		2.7	4.2	3.2	2.0	1.8	1.0	1.1	0.8	0.5	0.0	0.1
	Private	6005	12265	12567	3666	2989	4723	2501	1141	813	460	115
		1.5	2.8	2.7	1.0	0.6	1.0	0.5	0.2	0.2	0.1	0.0
	Total	*11549*	*20393*	*21306*	*8798*	*8328*	*7406*	*5269*	*3122*	*2076*	*590*	*387*
		1.9	*3.3*	*2.9*	*1.4*	*1.1*	*1.0*	*0.7*	*0.4*	*0.3*	*0.1*	*0.1*
Professionals	Public	36668	43449	39547	36241	45802	49780	47448	51531	57339	65501	67930
		18.8	23.5	15.4	14.5	15.7	18.4	18.5	19.5	20.6	21.9	21.9
	Private	24830	33656	36492	25453	33898	43018	50936	54443	52875	57617	64754
		6.2	7.8	7.7	6.8	7.2	9.0	10.1	10.5	10.0	10.4	11.5
	Total	*62768*	*78436*	*76938*	*62846*	*81462*	*95515*	*100934*	*108470*	*112684*	*125761*	*135290*
		10.5	*12.6*	*10.5*	*10.0*	*10.6*	*12.6*	*13.2*	*13.8*	*13.9*	*14.6*	*15.4*
Technicians & assoc. Profs.	Public	30316	24672	37643	30847	32243	35612	33559	34809	32241	31849	31126
		15.6	13.3	14.6	12.3	11.1	13.2	13.1	13.2	11.6	10.7	10.0
	Private	16746	18825	30473	21263	26371	33625	34896	39309	39623	42613	41677
		4.2	4.3	6.5	5.7	5.6	7.0	6.9	7.6	7.5	7.7	7.4
	Total	*47697*	*44542*	*68810*	*53000*	*59575*	*70416*	*69297*	*74588*	*72924*	*75103*	*73308*
		8.0	*7.1*	*9.4*	*8.4*	*7.8*	*9.3*	*9.1*	*9.5*	*9.0*	*8.7*	*8.3*
Clerks	Public	30605	35605	36680	30061	39396	35006	32304	32223	29298	29034	27010
		15.7	19.2	14.3	12.0	13.5	13.0	12.6	12.2	10.6	9.7	8.7
	Private	18305	22247	25203	14716	21033	22052	23686	25209	27196	24126	21493
		4.6	5.1	5.3	3.9	4.5	4.6	4.7	4.9	5.1	4.3	3.8
	Total	*49429*	*58185*	*62528*	*44935*	*61230*	*57706*	*56519*	*57927*	*57034*	*53483*	*48964*
		8.3	*9.3*	*8.5*	*7.2*	*8.0*	*7.6*	*7.4*	*7.4*	*7.0*	*6.2*	*5.6*
Service & sales workers	Public	8315	7511	10664	6127	15641	17110	13760	12059	8236	7704	8024
		4.3	4.1	4.2	2.5	5.4	6.3	5.4	4.6	3.0	2.6	2.6
	Private	78879	83095	93921	73006	89096	102299	112384	114343	119106	130119	124163
		19.8	19.2	19.9	19.5	19.0	21.4	22.3	22.1	22.5	23.4	22.0
	Total	*88349*	*90891*	*104813*	*79290*	*105377*	*120006*	*126313*	*126823*	*127489*	*137895*	*132339*
		14.8	*14.6*	*14.3*	*12.6*	*13.7*	*15.9*	*16.5*	*16.1*	*15.7*	*16.1*	*15.0*
Skld. Agric. & fish. Workers	Public	2079	1236	1516	262	1281	869	508	369	374	301	372
		1.1	0.7	0.6	0.1	0.4	0.3	0.2	0.1	0.1	0.1	0.1
	Private	34704	43211	40890	31318	47511	23485	18588	20002	18099	16613	16958
		8.7	10.0	8.7	8.4	10.1	4.9	3.7	3.9	3.4	3.0	3.0
	Total	*36841*	*44495*	*42535*	*31580*	*48952*	*24391*	*19096*	*20420*	*18473*	*16914*	*17330*
		6.2	*7.1*	*5.8*	*5.0*	*6.4*	*3.2*	*2.5*	*2.6*	*2.3*	*2.0*	*2.0*
Craft & related trades workers	Public	25639	18302	20322	21577	24076	21317	19689	17665	16950	14451	13033
		13.2	9.9	7.9	8.6	8.3	7.9	7.7	6.7	6.1	4.8	4.2
	Private	115893	117179	118990	93169	119470	123515	125294	128361	134891	138869	146713
		29.1	27.0	25.2	24.9	25.5	25.8	24.9	24.8	25.5	25.0	26.0
	Total	*142282*	*135528*	*139591*	*114903*	*144453*	*145622*	*145586*	*146489*	*152264*	*153441*	*159883*
		23.8	*21.7*	*19.0*	*18.3*	*18.8*	*19.2*	*19.0*	*18.6*	*18.7*	*17.9*	*18.2*
Plant & machinery operators & assemblers	Public	28641	24006	22916	25662	30962	28137	25235	26595	25906	25620	24780
		14.7	13.0	8.9	10.3	10.6	10.4	9.9	10.1	9.3	8.6	8.0
	Private	79341	75061	82528	71854	93473	88907	93216	101177	98389	105421	104703
		20.0	17.3	17.5	19.2	19.9	18.6	18.5	19.6	18.6	19.0	18.5
	Total	*108444*	*99447*	*105728*	*97725*	*125449*	*117624*	*118970*	*127955*	*124474*	*131220*	*129756*
		18.1	*16.0*	*14.4*	*15.6*	*16.4*	*15.5*	*15.5*	*16.3*	*15.3*	*15.3*	*14.7*

Annex Table 13: Male Employment Size and Distribution by Occupation, Ages 15-64, 1995-2006 (contn'd)

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2005	2006
Elementary occupations	Public	27024	22628	79750	94478	96516	79911	80697	87098	106216	123931	138059
		13.9	12.2	31.0	37.8	33.2	29.6	31.5	33.0	38.2	41.5	44.4
	Private	23040	27857	30541	39750	34966	37587	42545	33119	38090	40273	44257
		5.8	6.4	6.5	10.6	7.5	7.8	8.4	6.4	7.2	7.2	7.8
	Total	*50700*	*51720*	*111231*	*134804*	*132068*	*118153*	*123492*	*120680*	*144953*	*164950*	*183280*
		8.5	*8.3*	*15.2*	*21.5*	*17.2*	*15.6*	*16.1*	*15.3*	*17.8*	*19.2*	*20.8*
Total	**Public**	**194598**	**185252**	**257242**	**250231**	**291095**	**270314**	**255968**	**264329**	**277823**	**298521**	**310721**
		100.0	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Private	**397743**	**433395**	**471606**	**374194**	**468806**	**479210**	**504047**	**517104**	**529082**	**556109**	**564832**
		100.0	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Total	***598058***	***623638***	***733479***	***627882***	***766894***	***756837***	***765477***	***786475***	***812371***	***859357***	***880651***
		100.0	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Annex Table 14: Female Employment Size and Distribution by Occupation, Ages 15-64, 1995-2006

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2005	2006
Legislators, snr. Officials	Public	404	523	582	262	374	179	143	84	213		29
		0.7	1.0	1.0	0.5	0.6	0.3	0.3	0.1	0.4	0.0	0.0
	Private	289	475	1272	471	267	110	50	245	153		
		0.7	1.0	2.2	0.9	0.5	0.2	0.1	0.3	0.2	0.0	0.0
	Total	*693*	*998*	*1855*	*733*	*694*	*402*	*193*	*329*	*366*	*56*	*29*
		0.7	*1.0*	*1.6*	*0.7*	*0.6*	*0.3*	*0.2*	*0.2*	*0.3*	*0.0*	*0.0*
Professionals	Public	18247	16638	20054	16916	23542	26702	27099	27918	28891	33439	35580
		33.2	30.4	35.0	34.2	38.2	42.8	46.8	44.5	47.8	52.6	54.4
	Private	5255	7796	11416	7123	9822	13117	14230	17687	18051	21118	24186
		13.3	16.3	19.5	14.1	17.5	20.9	21.5	24.5	26.1	31.8	35.0
	Total	*24022*	*24719*	*32132*	*24562*	*34165*	*40796*	*42396*	*47215*	*48006*	*55899*	*60771*
		25.1	23.7	27.4	24.2	28.5	32.0	33.7	34.3	36.6	42.4	44.7
Technicians & assoc. Profs.	Public	22174	23388	23896	19692	25250	23592	20321	24162	21935	21017	21464
		40.4	42.7	41.7	39.8	40.9	37.8	35.1	38.5	36.3	33.0	32.8
	Private	7276	9032	13787	11260	15161	15377	16932	17758	18438	17101	14431
		18.4	18.8	23.6	22.4	27.1	24.4	25.6	24.6	26.7	25.7	20.9
	Total	*29969*	*33228*	*38044*	*31685*	*41478*	*39751*	*37752*	*42678*	*40932*	*38423*	*36224*
		31.3	31.9	32.5	31.3	34.6	31.2	30.0	31.0	31.2	29.1	26.7
Clerks	Public	8835	9650	8032	7280	7847	7134	5913	6123	5365	5099	4697
		16.1	17.6	14.0	14.7	12.7	11.4	10.2	9.8	8.9	8.0	7.2
	Private	7160	7273	9166	7280	6780	8526	8303	9690	8440	6691	6096
		18.1	15.2	15.7	14.5	12.1	13.6	12.5	13.4	12.2	10.1	8.8
	Total	*16111*	*17256*	*17412*	*14821*	*14734*	*15882*	*14415*	*16141*	*13842*	*11883*	*10793*
		16.8	16.6	14.9	14.6	12.3	12.5	11.4	11.7	10.5	9.0	8.0
Service & sales workers	Public	1213	951	718	1047	641	1222	391	1024	1277	571	517
		2.2	1.7	1.3	2.1	1.0	2.0	0.7	1.6	2.1	0.9	0.8
	Private	5717	5847	6465	7384	7260	9010	8885	11148	8372	8049	10042
		14.5	12.2	11.0	14.7	13.0	14.3	13.4	15.5	12.1	12.1	14.5
	Total	*6929*	*6798*	*7256*	*8432*	*7901*	*10296*	*9307*	*12184*	*9696*	*8628*	*10559*
		7.2	6.5	6.2	8.3	6.6	8.1	7.4	8.9	7.4	6.5	7.8
Skld. Agric. & fish. Workers	Public		48	71		53						
		0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
	Private	3118	7939	5308	4556	6192	2791	1293	2116	1784	616	585
		7.9	16.6	9.1	9.0	11.1	4.4	2.0	2.9	2.6	0.9	0.9
	Total	*3118*	*7986*	*5379*	*4556*	*6246*	*2791*	*1293*	*2116*	*1784*	*616*	*585*
		3.3	7.7	4.6	4.5	5.2	2.2	1.0	1.5	1.4	0.5	0.4
Craft & related trades workers	Public	520	523	369	157	320	272	426	401	263	169	
		1.0	1.0	0.6	0.3	0.5	0.4	0.7	0.6	0.4	0.3	0.0
	Private	7622	5704	7177	6389	7047	8459	9204	8685	8798	7032	7743
		19.3	11.9	12.3	12.7	12.6	13.5	13.9	12.0	12.7	10.6	11.2
	Total	*8257*	*6275*	*7546*	*6546*	*7367*	*8802*	*9670*	*9086*	*9061*	*7201*	*7743*
		8.6	6.0	6.4	6.5	6.2	6.9	7.7	6.6	6.9	5.5	5.7
Plant & machinery operators & assemblers	Public	58	48	142	105	214	42	32	15			
		0.1	0.1	0.3	0.2	0.4	0.1	0.1	0.0	0.0	0.0	0.0
	Private	1213	951	884	838	1174	1343	1302	1276	956	98	137
		3.1	2.0	1.5	1.7	2.1	2.1	2.0	1.8	1.4	0.2	0.2
	Total	*1270*	*998*	*1026*	*943*	*1388*	*1385*	*1334*	*1291*	*956*	*98*	*137*
		1.3	1.0	0.9	0.9	1.2	1.1	1.1	0.9	0.7	0.1	0.1

Annex Table 14: Female Employment Size and Distribution by Occupation, Ages 15-64, 1995-2006 (contn'd)

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2005	2006
Elementary occupations	Public	3465	2995	3433	3980	3470	3227	3533	3011	2446	3309	3127
		6.3	5.5	6.0	8.1	5.6	5.2	6.1	4.8	4.1	5.2	4.8
	Private	1848	2947	3073	5080	2349	4178	6040	3570	4153	5736	5871
		4.7	6.1	5.3	10.1	4.2	6.6	9.1	5.0	6.0	8.6	8.5
	Total	*5428*	*5990*	*6506*	*9113*	*5872*	*7431*	*9603*	*6604*	*6648*	*9174*	*8999*
		5.7	5.8	5.6	9.0	4.9	5.8	7.6	4.8	5.1	7.0	6.6
Total	**Public**	**54915**	**54763**	**57296**	**49439**	**61710**	**62370**	**57858**	**62737**	**60391**	**63605**	**65415**
		100.0	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Private	**39497**	**47965**	**58549**	**50381**	**56052**	**62910**	**66239**	**72175**	**69145**	**66442**	**69091**
		100.0	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Total	***95798***	***104249***	***117156***	***101391***	***119844***	***127537***	***125962***	***137644***	***131291***	***131977***	***135839***
		100.0	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Source : EUS 1995-2006

Annex Table 15: Annual Nominal Hourly Wage Index Growth Rate by Sector of Ownership and Nationality, 1994-1998 & 2000-2003:

Sector of Ownership	Nationality	1994-95	1995-96	1996-97	1997-98	2000-01	2001-02	2002-03
Public sector	Jordanians	-6.01	2.93	3.51	3.22	9.14	0.10	1.91
Private sector	Jordanians	2.69	5.70	5.65	0.87	5.51	1.38	0.96
	Foreigners	8.15	1.19	3.69	7.40	13.15	7.10	0.85

Source: ES

Annex Table 16: Annual Nominal Hourly Wage Index Growth Rate by Sector of Ownership and Gender, 1994-1998 & 2000-2003:

Sector of	Gender	1994-95	1995-96	1996-97	1997-98	2000-01	2001-02	2002-03
Public sector	Males	-5.69	2.95	3.16	3.89	12.13	-0.32	-0.85
	Females	-6.87	2.84	4.47	1.38	2.14	1.38	8.05
Private sector	Males	3.12	5.82	5.66	1.52	5.71	1.26	1.51
	Females	0.43	5.37	5.60	-2.05	5.05	1.94	-2.52

Annex Table 17: Nominal Hourly Wage by Economic Activity in the public Sector among Jordanians

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Mining & Quarrying	1.31	1.49	1.70	1.72	1.68	1.64	1.93	1.79	1.84
Manuf.	0.89	0.86	1.00	1.06	0.98	1.34	1.59	1.55	1.62
Elect, Gas & Water	1.25	0.98	0.99	0.99	1.06	1.06	1.31	1.06	1.08
Construction	-	-	-	-	0.95	-	1.31	-	1.16
Wholesale & Retail Trade	0.70	0.69	0.72	0.79	0.78	0.89	0.95	0.95	0.92
Restaurants & Hotels	0.66	0.74	0.65	0.77	0.75	0.99	1.07	0.88	1.00
Transport, Storage & Communic.	1.24	1.26	1.24	1.22	1.23	1.32	1.49	1.43	1.57
Finance & Insurance	1.27	1.35	1.30	1.56	1.84	1.39	2.03	1.89	1.82
Real Est. & Bus. Serv.	1.62	1.67	1.62	1.38	1.39	1.63	2.07	2.50	2.02
Public Administration	1.03	0.92	0.97	0.98	1.01	0.96	1.03	1.05	1.00
Education	1.21	1.17	1.19	1.26	1.31	1.26	1.31	1.38	1.46
Health & Soc. Serv.	-	0.90	0.94	1.00	1.04	1.22	1.42	1.25	1.25
Other Community, Personal & Soc.	0.89	1.13	0.97	1.01	1.04	1.25	1.23	1.22	1.26

Annex Table 18: Nominal Hourly Wage Index by Economic Activity in the public Sector among Jordanians

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Mining & Quarrying	100.0	113.9	129.6	131.1	127.9	100.0	117.7	109.0	112.4
Manuf.	100.0	97.6	112.9	119.9	111.1	100.0	119.2	116.1	121.0
Elect, Gas & Water	100.0	77.9	78.7	78.7	84.7	100.0	124.0	99.8	101.8
Construction	-	-	-	-	-	-	-	-	-
Wholesale & Retail Trade	100.0	98.7	102.4	112.7	111.3	100.0	106.7	107.2	103.5
Restaurants & Hotels	100.0	111.5	99.1	117.1	113.7	100.0	108.6	89.2	101.2
Transport, Storage & Communic.	100.0	101.7	100.6	99.0	99.8	100.0	112.8	108.3	119.2
Finance & Insurance	100.0	106.4	102.3	123.1	145.6	100.0	145.3	135.3	130.7
Real Est. & Bus. Serv.	100.0	103.4	100.4	85.2	85.7	100.0	126.9	153.0	123.7
Public Administration	100.0	90.1	94.8	95.9	98.5	100.0	107.4	109.7	104.2
Education	100.0	96.8	98.8	104.7	109.0	100.0	104.0	109.7	115.9
Health & Soc. Serv.	-	-	-	-	-	100.0	117.0	103.0	102.6
Other Community, Personal & Soc.	100.0	127.5	109.0	113.7	116.5	100.0	98.5	97.8	100.7

Annex Table 19: Real Hourly Wage Index by Economic Activity in the public Sector among Jordanians

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Mining & Quarrying	100.0	111.3	118.9	116.7	110.5	100.0	115.7	105.2	106.8
Manuf.	100.0	95.3	103.6	106.7	96.0	100.0	117.1	112.0	114.8
Elect, Gas & Water	100.0	76.1	72.2	70.1	73.1	100.0	121.9	96.3	96.6
Construction									
Wholesale & Retail Trade	100.0	96.5	94.0	100.4	96.1	100.0	104.8	103.5	98.2
Restaurants & Hotels	100.0	109.0	90.9	104.2	98.2	100.0	106.7	86.1	96.1
Transport, Storage & Communic.	100.0	99.4	92.3	88.2	86.2	100.0	110.9	104.5	113.1
Finance & Insurance	100.0	103.9	93.9	109.6	125.8	100.0	142.8	130.5	124.1
Real Est. & Bus. Serv.	100.0	101.0	92.1	75.8	74.1	100.0	124.7	147.7	117.5
Public Administration	100.0	88.1	87.0	85.4	85.1	100.0	105.5	105.8	98.9
Education	100.0	94.6	90.6	93.2	94.2	100.0	102.2	105.9	110.1
Health & Soc. Serv.	0.0	0.0	0.0	0.0	0.0	100.0	115.0	99.4	97.5
Other Community, Personal & Soc.	100.0	124.6	100.0	101.2	100.6	100.0	96.8	94.4	95.6

Annex Table 20: Nominal Hourly Wage by Economic Activity in the private Sector among Jordanians

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Mining & Quarrying	0.63	0.74	0.78	0.81	0.79	0.87	0.93	1.12	1.00
Manuf.	0.63	0.67	0.70	0.73	0.74	0.69	0.70	0.71	0.75
Elect, Gas & Water	1.13	1.02	1.02	1.19	1.28	1.45	1.55	1.61	1.35
Construction	0.87	0.93	0.93	0.93	0.98	1.03	1.09	1.14	1.15
Wholesale & Retail Trade	0.75	0.82	0.84	0.90	0.91	0.61	0.65	0.60	0.66
Restaurants & Hotels	0.55	0.57	0.57	0.68	0.70	0.56	0.58	0.63	0.66
Transport, Storage & Communic.	0.87	0.95	0.99	1.04	1.06	1.05	1.23	1.25	1.22
Finance & Insurance	1.50	1.37	1.62	1.76	1.77	2.03	2.07	2.11	1.94
Real Est. & Bus. Serv.	0.81	0.87	0.86	0.83	0.90	0.99	0.99	1.03	1.02
Public Administration									
Education	0.96	1.00	1.04	1.06	1.03	0.79	0.92	0.98	0.86
Health & Soc. Serv.	0.66	0.79	0.85	0.92	0.97	0.79	0.86	0.86	0.90
Other Community, Personal & Soc.	0.35	0.82	0.87	0.91	0.83	0.56	0.59	0.54	0.63

Annex Table 21: Nominal Hourly Wage Index by Economic Activity in the private Sector among Jordanians

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Mining & Quarrying	100.0	118.5	105.1	103.8	97.4	100.0	107.5	128.8	115.5
Manuf.	100.0	107.1	104.7	104.7	101.2	100.0	101.7	103.4	109.6
Elect, Gas & Water	100.0	90.3	100.1	117.0	107.3	100.0	107.3	111.5	93.3
Construction	100.0	106.7	99.6	100.1	105.8	100.0	105.9	110.7	111.8
Wholesale & Retail Trade	100.0	108.4	102.8	107.4	100.5	100.0	105.5	98.5	107.8
Restaurants & Hotels	100.0	103.0	101.0	118.9	102.8	100.0	103.7	112.9	117.6
Transport, Storage & Communic.	100.0	109.1	104.0	104.7	101.9	100.0	117.9	119.6	116.4
Finance & Insurance	100.0	91.5	117.9	109.2	100.3	100.0	102.1	104.0	95.6
Real Est. & Bus. Serv.	100.0	107.3	99.3	96.0	108.2	100.0	100.4	104.2	103.7
Public Administration									
Education	100.0	104.4	103.2	102.8	97.0	100.0	115.9	124.1	109.0
Health & Soc. Serv.	100.0	119.9	107.6	108.3	105.1	100.0	108.9	110.1	114.5
Other Community, Personal & Soc.	100.0	237.3	106.3	103.6	91.9	100.0	104.9	95.4	112.1

Annex Table 22: Real Hourly Wage Index by Economic Activity in the private Sector among Jordanians

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Mining & Quarrying	100.0	115.8	96.4	92.4	84.1	100.0	105.6	124.2	109.6
Manuf.	100.0	104.6	96.0	93.2	87.4	100.0	99.9	99.8	104.1
Elect, Gas & Water	100.0	88.2	91.8	104.2	92.7	100.0	105.4	107.6	88.6
Construction	100.0	104.2	91.3	89.1	91.3	100.0	104.1	106.8	106.2
Wholesale & Retail Trade	100.0	105.9	94.3	95.7	86.8	100.0	103.6	95.1	102.3
Restaurants & Hotels	100.0	100.7	92.6	105.9	88.8	100.0	101.9	108.9	111.6
Transport, Storage & Communic.	100.0	106.6	95.4	93.2	88.0	100.0	115.8	115.4	110.6
Finance & Insurance	100.0	89.4	108.1	97.2	86.6	100.0	100.3	100.4	90.7
Real Est. & Bus. Serv.	100.0	104.9	91.1	85.5	93.5	100.0	98.7	100.5	98.5
Public Administration									
Education	100.0	102.0	94.7	91.5	83.7	100.0	113.9	119.8	103.5
Health & Soc. Serv.	100.0	117.2	98.7	96.4	90.8	100.0	107.0	106.2	108.8
Other Community, Personal & Soc.	100.0	231.8	97.5	92.2	79.4	100.0	103.1	92.1	106.4

Table 23: Nominal Hourly Wage by Occupation in the public Sector among Jordanians

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Clerks	0.89	0.92	0.94	0.96	0.98	0.95	1.00	1.00	1.04
Craft & related trades workers	0.93	0.94	0.99	1.01	1.07	1.07	1.17	1.09	1.14
Elementary occupations	0.63	0.66	0.67	0.68	0.74	0.65	0.77	0.69	0.77
Legislators, snr. Officials	1.87	2.01	2.06	2.21	2.21	3.25	3.19	3.34	2.95
Plant & machinery operators &	0.93	0.95	1.00	1.02	1.01	1.00	1.06	1.06	1.07
Professionals	1.32	1.29	1.31	1.39	1.45	1.36	1.49	1.52	1.64
Service & sales workers	0.99	0.84	0.86	0.89	0.90	0.95	1.07	0.96	0.97
Skld. Agric. & fish. Workers	0.59	0.41	0.59	0.44	0.44	-	0.69	0.52	0.68
Technicians & assoc. profs.	1.53	1.00	1.06	1.03	1.04	1.08	1.17	1.09	1.13

Table 24: Nominal Hourly Wage Index by Occupation in the public Sector among Jordanians

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Clerks	100.0	102.6	105.3	107.4	109.3	100.0	105.1	104.6	109.9
Craft & related trades workers	100.0	101.2	106.4	108.8	115.5	100.0	109.9	102.4	107.3
Elementary occupations	100.0	105.5	106.2	108.5	117.6	100.0	118.3	105.8	118.2
Legislators, snr. Officials	100.0	107.5	109.9	117.7	118.1	100.0	98.3	102.9	90.8
Plant & machinery operators & assemblers	100.0	102.1	107.3	109.8	109.0	100.0	106.0	105.4	106.5
Professionals	100.0	98.0	99.7	105.7	110.4	100.0	110.0	111.8	120.6
Service & sales workers	100.0	85.0	87.0	89.8	91.0	100.0	111.8	101.3	101.8
Skld. Agric. & fish. Workers	100.0	69.2	100.6	75.2	74.4	-	-	-	-
Technicians & assoc. profs.	100.0	65.0	69.3	67.3	68.1	100.0	108.2	100.7	104.6

Annex Table 25: Real Hourly Wage Index by Occupation in the public Sector among Jordanians

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Clerks	100.0	100.2	96.6	95.6	94.4	100.0	103.2	101.0	104.3
Craft & related trades workers	100.0	98.9	97.6	96.8	99.8	100.0	108.0	98.8	101.9
Elementary occupations	100.0	103.1	97.4	96.6	101.6	100.0	116.2	102.1	112.3
Legislators, snr. Officials	100.0	105.0	100.8	104.8	102.0	100.0	96.6	99.3	86.2
Plant & machinery operators & assemblers	100.0	99.8	98.4	97.8	94.2	100.0	104.2	101.7	101.1
Professionals	100.0	95.8	91.5	94.1	95.4	100.0	108.1	107.9	114.5
Service & sales workers	100.0	83.1	79.8	80.0	78.6	100.0	109.8	97.7	96.7
Skld. Agric. & fish. Workers	100.0	67.6	92.3	67.0	64.2	-	-	-	-
Technicians & assoc. profs.	100.0	63.5	63.6	59.9	58.8	100.0	106.3	97.1	99.3

Annex Table 26: Nominal Hourly Wage by Occupation in the private Sector among Jordanians

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Clerks	0.82	0.85	0.95	0.97	1.00	0.73	0.81	0.80	0.81
Craft & related trades workers	0.53	0.55	0.58	0.58	0.59	0.52	0.53	0.53	0.59
Elementary occupations	0.45	0.47	0.49	0.49	0.51	0.44	0.45	0.44	0.49
Legislators, snr. Officials	2.07	2.09	2.13	2.56	2.56	3.00	3.17	3.31	2.96
Plant & machinery operators & assemblers	0.61	0.62	0.67	0.68	0.68	0.61	0.58	0.60	0.63
Professionals	1.21	1.29	1.33	1.36	1.36	1.14	1.28	1.30	1.29
Service & sales workers	0.55	0.54	0.57	0.59	0.58	0.47	0.49	0.47	0.56
Skld. Agric. & fish. Workers	0.42	-	-	-	0.44	-	0.66	-	0.66
Technicians & assoc. profs.	0.77	0.80	0.83	0.87	0.90	0.97	1.05	1.01	0.97

Annex Table 27: Nominal Hourly Wage Index by Occupation in the private Sector among Jordanians

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Clerks	100.0	103.3	115.5	118.2	121.6	100.0	110.3	109.2	111.0
Craft & related trades workers	100.0	104.4	110.1	111.1	112.9	100.0	100.8	100.4	111.9
Elementary occupations	100.0	103.7	107.9	109.6	113.9	100.0	102.7	99.5	112.3
Legislators, snr. Officials	100.0	100.9	103.1	123.9	124.0	100.0	105.6	110.6	98.9
Plant & machinery operators & assemblers	100.0	101.5	109.9	111.9	111.8	100.0	94.8	97.8	103.4
Professionals	100.0	106.9	110.4	113.0	112.7	100.0	112.1	114.1	113.2
Service & sales workers	100.0	97.7	102.6	105.9	105.1	100.0	103.6	100.0	119.4
Skld. Agric. & fish. Workers	100.0	-	-	-	103.5	-	-	-	-
Technicians & assoc. profs.	100.0	102.7	106.9	112.4	115.9	100.0	107.3	103.6	99.8

Annex Table 28: Real Hourly Wage Index by Occupation in the private Sector among Jordanians

	1994	1995	1996	1997	1998	2000	2001	2002	2003
Clerks	100.0	100.9	106.0	105.3	105.0	100.0	108.4	105.3	105.4
Craft & related trades workers	100.0	102.0	101.0	98.9	97.5	100.0	99.1	96.9	106.2
Elementary occupations	100.0	101.3	99.0	97.5	98.4	100.0	101.0	96.0	106.6
Legislators, snr. Officials	100.0	98.6	94.6	110.3	107.1	100.0	103.8	106.7	93.9
Plant & machinery operators & assemblers	100.0	99.2	100.8	99.6	96.6	100.0	93.2	94.3	98.2
Professionals	100.0	104.4	101.3	100.6	97.4	100.0	110.2	110.1	107.5
Service & sales workers	100.0	95.4	94.1	94.3	90.8	100.0	101.8	96.5	113.4
Skld. Agric. & fish. Workers	100.0	-	-	-	89.4	-	-	-	-
Technicians & assoc. profs.	100.0	100.4	98.1	100.0	100.1	100.0	105.5	100.0	94.8

Annex 29: List of Variables in the Various Rounds of the EUS and the Corresponding Questions Numbers each Year

Variable Name	Variable definition	Needed Range	2006 round3	2006 round 1 & 2	2005	2003	2002	2001	2000	1999	1998 round 1	1998 round2	1997	1996	1995
file name											emp98112	emp98212			
year	survey year	str4	year1	year1	year1	year1	year1	missing	missing	missing	missing		year		missing
round	round of the survey	str1	q115	q115	q115	q112	q112	q112	q112 [1,4]	missing	missing	rec	round		missing
hhnum	household number		qst [1,2490]	qst [1,2490]	qst [1,2490]	qst	qst	qst	qst [1,8800]	missing	missing		na		missing
gov	governorate	[11-34] str2	q101 [11,34]	q101 [11,34]	q101 [11,34]	q101	q101	q101	q101 [11;34]	e101 (12) [11;34]	e101 (12) [11;34]	e101	e101 [11-34]	e101 (12) [11-34]	e101 (12) [11-34]
district	district		q102 [1,9]	q102 [1,9]	q102 [1,9]	q102	q102	q102	q102 [1,9]	e102 [1-9]	missing	e102	na		
subdist	subdistrict		q103 [1,5]	q103 [1,5]	q103 [1,5]	q103	q103	q103	q103 [1,5]	e103 [1-5]	missing	e103	na		
locality	locality		q104 [11,116]	q104 [11,116]	q104 [11,116]	q104	q104	q104	q104 [11,232]	e104 [11-26;32]	missing	e104	na		
area	area		q105 [1,20]	q105 [1,20]	q105 [1,20]								na		
neighbrd	neighborhood		q106 [1,28]	q106 [1,28]	q106 [1,28]								na		
repeat							q106								
block	block		q107 [1,123]	q107 [1,146]	q107 [1,146]	q107	q107	q106	q106 [xxxxx] str5	e106 [xxxxx]	e106 [xxxxx]	e106	e106 [xxxxx]		
stratum	stratum	[1-9]	q108 [1,5]	q108 [1,7]	q108 [1,7]	q105	q105	q105	q105 [1,7]	e105 [1-7]	e105 [1-7]	e105	e105 [1-7]	e106 (9) [1-9]	e106 (9) [1-9]
group	group		q109 [64;83;112;121]	q109 [1,91]	q109 [1,91]	q106									
replicate & round n°															
cluster	cluster	[xxxx]						q109 [1,799]	q109 [1,796]	e109 [xxxxx]	e109 [xxxxx]	e109	e109 [xxxx]	e110 (752) [xxxx]	e110 (599) [xxxx]
hhpsu	household PSU		q113 [1,15]	q113 [1,15]	q113 [1,15]	q110	q110	q110	q110 [1,20]	e110 [1-20]	e110 [01-20]	e110	e110 [01-20]	e111 [01-39]	e111 (30) [01-30]
hsize	household size		q232	q232	q232	q232									
pn	personal number		q201 [1,22]	q201 [1,23]	q201 [1,24]	q201	q201	q201	q201 [1,23]	e201 [1-27]	e201 [01-28]	e201	e202 [01-23]	e202 [01-31]	e202 (28) [01-28]
reltohd	relation to head of household		q203 [0,8]	q203 [0,8]	q203 [0,8]	q203	q203	q203	q203 [0-8;9]	e203 [0-8]	e203 [0-8]	e203	e204 [0-8]	e204 (10) [0-8;9]	e204 (10) [0-8;9]
sex	sex		q204 [1,2]	q204 [1,2]	q204 [1,2]	q204	q204	q204	q204 [1,2]	e204 [1;2]	e204 [1;2]	e204	e205 [1;2]	e205 (2) [1,2]	e205 (2) [1,2]
bthmth	birth month		q205m [0-12;99]	q205m [0-12;99]	q205m [0-12;99]	q205m	q205m	q205m	q205m [0,12]	e205m [0-12;99]	e205m [0-12;99]	e205m	e206m [0-12;99]	e206m [0-12;99]	e206m [0-12;99]
bthyr	birth year		q205y [1909,2006;9999]	q205y [1896,2006;9999]	q205y [1900,2005;9999]	q205y	q205y	q205y	q205y [xxxx;9999]	e205y [xxxx;9999]	e205y [0-99;99]	e205y	e206y [0_97;99]	e206y [1-96;99]	e206y [0,99]
age	age in completed years		q206 [0,99]	q206 [0,98]	q206 [0,98]	q206	q206	q206	q206 [0,99]	e206 [0-99]	e206 [0-99]	e206	e207 [0-98]	e207 [0,99]	e207 [0,99]
nationty	nationality 1										e207 [xxx]	missing	e208 [xxx]	e208 (42) [xxx;999]	e208 (54) [xxx]
natlity	nationality 2		q207 [1,6]	q207 [1,6]	q207 [1,6]	q207	q207	q207	q207 [1,6]	e207 [1-6]					
ftheduc	father educational level														
motheduc	mother educational level														
Resid	inside/outside Jordan												e201 [1;2]	e201 (2) [1-2]	e201 (2) [1-2]
rsnabrd	main reason of residency outside Jordan														
rsnresid	reason of residency in Jordan (for foreigners)									e208 [1-6]	e208 [1-6;9]	e207	e209 [1-6;9]	e209 (7) [1-6;9]	e209 (7) [1-6;9]
inschool	currently or ever been in school	str1	q208 [1,3]	q208 [1,3]	q208 [1,3]	q208	q210	q210	q210 [1,3]	e209 [1-3;9]	e209 [1;2]	e208	e210 [1;2]	e210 (2) [1;2]	e210 (2) [1;2]
rgschool	regularly enrolled in school												e211 [1;2]	e211 (2) [1;2]	e211 (2) [1;2]
grade	grade												e212 [01-10;99]	e212 (11) [01-10;99]	e212 (11) [01-10;99]
schlvl	school level												e213 [0-8;9]	e213 (10) [0-9]	e213 (10) [0-9]
yrseduc	completed years of education	byte	q209 [0,24]	q209 [0,25]	q209 [0,25]	q209	q211	q211	q211 [0-34;99]	e210 [1-25]	e210 [1-27]	e209	e215 [0-24]	e215 [0,25]	e215 [0,25]
schauth	authority/institution												e214 [1-8;9]	e214 (9) [1-9]	e214 (9) [1-9]
rsnnosch	reason for being out of school												e216 [01-14;99]	e216 (14) [01-13;99]	e216 (14) [01-13;99]
drpschyr	in which year he/she dropped school														
schoolyr	years in school														

Annex 29 (Contn'd)

List of Variables in the Various Rounds of the EUS and the Corresponding Questions Numbers each Year

Variable Name	Variable definition	Needed Range	2006 round3	2006 round 1 & 2	2005	2003	2002	2001	2000	1999	1998 round 1	1998 round2	1997	1996	1995
evrtrain	main reason for training (in last 3 years)												e217 [1-4;9]	e217 (5) [1-4;9]	e217 (5) [1-4;9]
trainauth	training institution/authority												e218 [1-5;9]	e218 (6) [1-5;9]	e218 (6) [1-5;9]
educ	educational level	str2	q210 [1,12]	q210 [1,12]	q210 [1,12]	q210	q212	q212	q212 [1-12;99]	e211 [01-12;99]	e211 [01-11]	e210	e219 [.;0-8;9]	e219 (6) [.;0-8;9]	e219 (6) [.;0-8;9]
educspec	education speciality	str4	q211 [xxxxx;99999]	q211 [xxxxx;99999]	q211 [xxxxx;99999]	q211	q213	q213	q213 [1-8999;9999]	e212 [xxxx]	e212 [xxxx;9999]	misssing	e220 [xxx;999]	e220 [xxxx]	e220 [xxxx]
marital	marital status	str1	q212 [1,5]	q212 [1,5]	q212 [1,5]	q212	q214	q214	q214 [1,5]	e213 [1-5]	e221 [1-5]		e221 [1-5]	e221 (6) [1-5;9]	e221 (6) [1-5;9]
crwkst	current working status	str1	q213 [1,2]	q213 [1,2]	q213 [1,2]	q213	q215	q215	q215 [1,2]	e214 [1;2]	e213 [1;2]	e211	e222 [1;2]	e222 (2) [1;2]	e222 (2) [1;2]
attach	attached to work	str1	q214 [1,2]	q214 [1,2]	q214 [1,2]	q214	q216	q216	q216 [1,2]	e215 [1;2]	e214 [1;2]	e212	e223 [1;2]	e223 (2) [1;2]	e223 (2) [1;2]
rsnnowrk	unemp worked before/new entrant and reason Out of the Labor force												e224 [1-7]	e224 (8) [1-7;9]	e224 (8) [1-7;9]
srchevwk	search for work (last week) and ever worked									***e216***	e215 [1-3]	e213			
absent	reason for being absent from work	str1	q215 [1,6]	q215 [1,6]	q215 [1,6]	q215	q217	q217	q217 [1,6]						
crwkhrs	current total working hours	byte	q216 [1,98]	q216 [1,98]	q216 [1,98]	q216	q218	q218	q218 [1-99]						
dsrchgwk	or additional work (last 4 weeks)	str1	q217 [1,2]	q217 [1,2]	q217 [1,2]	q217	q219	q219	q219 [1-2;9]						
rsnchg	main reason for desire in changing work	str1	q218 [1,9]	q218 [1,9]	q218 [1,9]	q218	q220	q220	q220 [1,9]						
sector	establishment name (sector of ownership)	str1	q219 [1,3]	q219 [1,3]	q219 [1,3]	q219	q221	q221	q221 [1,3]	e219 [1-3;9]	e217 [1-3]	**missing**	e225 [1-3]	e225 (4) [1-3;9]	e225 (4) [1-3;9]
Place of work	placewrk														
econact	current economic activity	str3	q220 [11,990]	q220 [11,990]	q220 [11,990]	q220	q222	q222	q222 [11-990;999]	e220 [xxx]	e218 [xxx;999]	**missing**	e226 [xxx]	e226 [xxx]	e226 [xxx]
occup	current occupation		q221 [112,933]	q221 [111,933]	q221 [111,933]	q221	q223	q223	q223 [xxx;999]	e221 [xxx]	e219 [xxx;xxx]	**missing**	e227 [xxx;999]	e227 [xxx]	e227 [xxx]
empst	current employment status		q222 [1,5]	q222 [1,5]	q222 [1,5]	q222	q224	q224	q224 [1-5;9]	e222 [1-5]	e220 [1-5]	**missing**	e228 [1-5;9]	e228 (6) [1-5;9]	e228 (6) [1-5;9]
trainspec	training in speciality ?														
mnthrev	monthly revenue in dinar														
yremp	duration of employment in last occupation in years	numeric								e223 [0-60]					
mthsal	salary per month		q223 [1,5]	q223 [1,5]	q223 [1,5]	q223	q225 [1-5;9]	q225	q225 [1-5;9]						
evrwrk	ever worked		q224 [1,2]	q224 [1,2]	q224 [1,2]	q224	q226	q226	q226 [1,2]						
avail	available for work		q225 [1,2]	q225 [1,2]	q225 [1,2]	q225	q227	q227	q227 [1,2]						
search	search for work (last 4 weeks)		q226 [1,2]	q226 [1,2]	q226 [1,2]	q226	q228	q228	q228 [1,2]						

Annex 29 (Contn'd)

List of Variables in the Various Rounds of the EUS and the Corresponding Questions Numbers each Year

Variable Name	Variable definition	Needed Range	2006 round3	2006 round 1 & 2	2005	2003	2002	2001	2000	1999	1998 round 1	1998 round2	1997	1996	1995
mthsrch1	search method #1		q228_1 [1,6]	q228_1 [1,6]	q228_1 [1,6]	q228_1	q230_1	q230_1	q230_1 [1-6;8]						
mthsrch2	search method #2		q228_2 [1,5]	q228_2 [1,6]	q228_2 [1,6]	q228_2	q230_2	q230_2	q230_2 [1-6;8]						
mthsrch3	search method #3		q228_3 [1,5]	q228_3 [1,6]	q228_3 [1,6]	q228_3	q230_3	q230_3	q230_3 [1-6;8]						
mthsrch4	search method #4		q228_4 [1,5]	q228_4 [1,6]	q228_4 [1,6]	q228_4	q230_4	q230_4	q230_4 [1,5]						
lstsrch	last period of search for a job		q229 [1,4]	q229 [1,4]	q229 [1,4]	q229	q231	q331	q231 [1,4]						
durunemm	duration of unemployment in months		q230m [0,11]	q230m [0,11]	q230m [0,11]	q230m	q232m	q232m	q232m [0,11]				e229m [1-11]	e229m [0-11;99]	e229m [0-11;99]
durunemy	duration of unemployment in years		q230y [0,8]	q230y [0,8]	q230y [0,8]	q230y	q232y	q232y	q232y [0,8]				e229y [1-9]	e229y [0-10;99]	e229y [0-10;99]
rsnunemp	reason for being unemployed												e230 [0-8;9]	e230 [0-8;9]	e230 [08;-9]
rsnolf	reason for being out of the labor force		q231 [1,5]	q231 [1,5]	q231 [1,5]	q231	q233	q233	q233 [1,5]	e217 [1-5]	e216 [1-5]	e214			
retired	retired									e224 [1;2]			e231 [1;2]	e231 [1-2;9]	e231 [1-2;9]
pnunemp	line number unemployed									e225 [1;15]	e222 [01-14]				
pnfeduc	line number educated female										e223 [01-22]				
rsnosrch	Reason for unemployed for not searching for a job									e218 [7-10]					
Not identified			**pea, wt_prsn**	**pea, wt_prsn, number**					**pea**	**urrl**	**dis**	**e215m and e215y and cnt**			
weight	weight term					wt_prsn	wt_prsn	wt_prsn	wt_prsn	wt or wts	wt and wts the same /wt644	wts	wt	missng	missing
expan	expansion term		pea	pea	pea	pea	pea	pea		pea???	??	??			
file name					pop_2005	pop_2003	pop_2002	pop_2001	pop_2000	emp99112	emp98112	emp98212	emp97012	emp9600	emp95002

Notes:

In red : variables needed for the sorting

Annex 30: List of Variables in the Various Rounds of the ES and the Corresponding Questions Numbers each Year

Establishment Surveys

Variable Name		Final needed Range	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994
year	year	str(4)	year	year	year		year	yr	yr	yr	yr	
gov	governorate	[11, 34]	gov	gov	gov	gov	gov	e_101	e_101	e_101	e_101	e_101
district	district	[1,10]	dist	dist	dist	dist	dist					
subdist	subdistrict	[1,5]	sub	sub	sub	sub	sub					
locality	locality	[1,300]	loc	loc	loc	loc	loc					
est_nb	establishment number	[1,9904]	est_no	est_no	est_no	est_no	est_no	e_202	e_202	e_202	e_202	e_202
econact	main economic activty	xxxx	is3	is3	is3	is3	is3	e_203b	e_203b	e_203b	e_203b	economic
legalst	legal status	[01,10] str2	ls	ls	ls		ls	e_206	e_205	e_205	e_205	e_206
sector	sector of ownership	[1,3]	own	own	own		own	e_204	e_204	e_204	e_204	sector
empm	total male employment	int	em_m_m	em_m_m	em_m_m			e_2011m				e_211m
empf	total female employment	int	em_f_f	em_f_f	em_f_f			e_2011f				e_211f
emptot	total employment	int	em_t_t	em_t_t	em_t_t							
sn	serial number	[1,99999] 4or 5	sn	sn	sn		sn	e_301	e_301	e_301	e_301	e_301
occup	occupation	[1, 9999999] 7	occ	occ	occ	occ	occ	e_302	e_302	e_302	e_302	e_302
sex	sex	[1,2]	sex	sex	sex	sex	sex	e_303	e_303	e_303	e_303	e_303
nationlty	nationality	[1,5]	nat	nat	nat	nat	nat	e_304	e_304	e_304	e_304	e_304
educ	educational level	[1,6 or 9]	edu	edu	edu	edu	edu					
educspec	education speciality	[xxxxx]	edu_p	edu_p	edu_p	edu_p		e_305	e_305	e_305	e_305	e_305
stability	stability in work	[1,3]	pr_tmp	pr_tmp	pr_tmp	pr_tmp		e_306	e_306	e_306	e_306	e_306
paidwk	paid/unpaid worker	[1,2]	p_up	p_up	p_up	p_up		e_307	e_307	e_307	e_307	e_307
emp_occ	employment number by occupation	int	no_emp	no_emp	no_emp	no_emp	no_emp	e_308	e_308	e_308	e_308	e_308
wage	salary and wage	long	wag		wag	wag	cash_tot	e_311	e_311	e_311	e_311	e_311
regbonus	regular bonus and allowances	long	wag_reg		wag_reg		wag_reg	e_309	e_309	e_309	e_309	e_309
irgbonus	irregular bonuses and allowances	long	wag_nreg		wag_nreg		cash_nre	e_310	e_310	e_310	e_310	e_310
totnbhrs	total number of paid working hours	long	work_h		work_h	work_h	work_h	e_312	e_312	e_312	e_312	e_312
weight	weight	float (xxx.xxxxx)	rf	rf	rf	rf	rf		enlfrc	enlfrc	enlfrc	enlfrc

Annex 31: Coding of common variables in Jordan Population Census 2004 and EUS 2003 and 2005

Variable Name	Variable definition	Population Census 2004	EUS 2005	EUS 2003
year	survey year		year1	year1
round	round of the survey		q115	q112
hhnum	household number	hhser	qst	qst
gov	governorate	q101	q101	q101
district	district	q102	q102	q102
subdist	subdistrict	q103	q103	q103
locality	locality	q104	q104	q104
area	area	q105	q105	
neighbrd	neighboroud	q106	q106	
block	block	q107	q107	q107
stratum	stratum		q108	q105
group	group		q109	
hhpsu	household PSU		q113	q110
hhsize	household size		q232	q232
pn	personal number	q203	q201	q201
reltohd	relation to head of household	q205	q203	q203
sex	sex	q206	q204	q204
relig	religion	q207		
bthmth	birth month	q208_m	q205m	q205m
bthyr	birth year	q208_y	q205y	q205y
age	age in completed years	q209	q206	q206
healthins	health insurance	q210		
typhlth1	Type health insurance civilian	q211_1		
typhlth2	Type health insurance military	q211_2		
typhlth3	Type health insurance university	q211_4		

Annex 31 (Contn'd)

Coding of common variables in Jordan Population Census 2004 and EUS 2003 and 2005

typhealth4	Type health insurance private	q211_8		
typhltht	Type health insurance total	q211_t		
nationty	nationality	q212	q207	q207
natnumb	Discrete national number	q213		
residbth	Place of Residence at birth	q215		
residcur	Current place of usual residence	q216		
durresid	Duration of residence in current place (in years)	q217		
residprev	Previous place of usual residence	q218		
Resid	inside/outside Jordan	q202		
rsnreside	Reason for residing in Jordan (for Foreigners) or for residing abroad (for Jordanians)	q214		
inschool	currently or ever been in school	q219	q208	q208
rgschool	regularly enrolled in school			
grade	grade	q220		
schlvl	school level	q221		
yrseduc	completed years of education		q209	q209
educ	educational level	q222	q210	q210
educspec	education speciality	q223	q211	q211
marital	marital status	q224	q212	q212
crwkst	current working status	q225	q213	q213
attach	attached to work	q226	q214	q214
absent	reason for being absent from work		q215	q215
crwkhrs	current total working hours	q227	q216	q216
dsrchgwk	desire for changing work or additional work (last 4 weeks)		q217	q217

Annex 31 (Contn'd)

Coding of common variables in Jordan Population Census 2004 and EUS 2003 and 2005

rsnchg	main reason for desire in changing work		q218	q218
sector	establishment name (sector of ownership)	q228	q219	q219
econact	current economic activity	q229	q220	q220
occup	current occupation	q230	q221	q221
empst	current employment status	q231	q222	q222
mthsal	salary per month		q223	q223
evrwrk	ever worked		q224	q224
avail	available for work	q232	q225	q225
search	search for work (last 4 weeks)	q233	q226	q226
rsnosrch	main reason for not searching for work		q227	q227
mthsrch1	search method #1		q228_1	q228_1
mthsrch2	search method #2		q228_2	q228_2
mthsrch3	search method #3		q228_3	q228_3
mthsrch4	search method #4		q228_4	q228_4
lstsrch	last period of search for a job		q229	q229
durunemm	duration of unemployment in months		q230m	q230m
durunemy	duration of unemployment in years		q230y	q230y
rsnolf	reason for being out of the labor force	q234	q231	q231