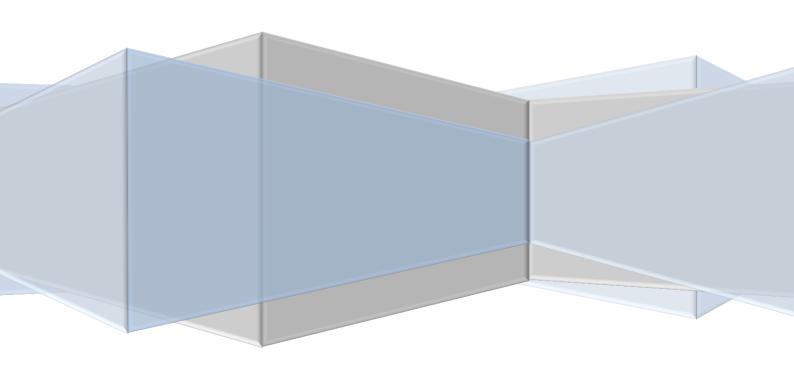


# Population Projections for the Kingdom's Residents during the Period

2015-2050

**Department of Statistics** 



### 1 - EXECUTIVE SUMMARY

The importance of providing future population data of the Kingdom increases with the increasing demand by the governmental and international institutions, as well as the researchers and specialists. Hence, the Department of Statistics (DoS) endeavours to provide the latest data through censuses and population projections. The extrapolation of the population's future, change in its size, its composition and distribution is fundamental to the overall economic and social planning of any modern society. These projections are calculated through assuming a set of trends affecting the demographic variables of the population size, which in light of their results can determine the population opportunity and thus maximize the benefit of the future composition of the population.

The report includes population projections for Jordanians in the Kingdom. These projections were prepared on the basis of the General Population and Housing Census – 2015 and the total fertility rates from the Population and Family Health Survey (PFHS). Data of the Public Security Directorate (PSD) covering the number of Jordanian arrivals and departures were also used to calculate the net Jordanian migration as an input in the projections' assumptions. The projections did not include Jordanians abroad due to non-availability of comprehensive data on them.

The report also included population projections for non-Jordanians in the Kingdom by main nationalities. These projections were prepared using the population estimates method based on the results of the General Population and Housing Census - 2015 after considering several assumptions in conformity with the data and information of each nationality seperately. Three assumptions for each nationality have been appoved for calculating the population of the Kingdom.

The projections were carried out on the basis of three scenarios: the High-Basic Scenario (continuation of current situation), the Medium Scenario and the Low Scenario for the period 2015-2050. The assumptions concerning the Jordanian and non-Jordanian population categories in the Kingdom were approved by the Population Projections Committee that has repersentatives from the concerned institutions dealing with data and population issues in the Kingdom.

Table (1 – 1): Summary of projections assumptions for the Jordanian population in the Kingdom according to the three Scenarios for 2015-2050

Projection Elements	Period	High-basic scenario (continuation of the current situation)	Medium scenario	Low scenario
Reproduction rate	2015 2030	Stability of the total fertility rate at (2.1) children	The total fertility rate decreased and reached (2.4) child whch is the desired reproduction rate according to the results of the Population and Family Health Survey 2012.	<ul> <li>The total fertility rate decreased to (2.1) child, which is the replacement rate, and represents number of children that every woman should bear during her lifetime, so that the population in the community remains unchanged over the coming years and decades.</li> </ul>
	2030 2050	50	The overall fertility rate decreased and reached (2.2) child	Stability in the total fertility rate at (2.1) children.
Life expectancy	2015-2030	<ul> <li>Stability of the life expectancy values of males and females</li> </ul>		<ul> <li>Life Expectancy Rate for both males and females increased by two years.</li> </ul>
at birth	2030-2050	(72.87 years for males and 74.27 years for females).	Life Expectancy Rate for both males and females increased by 0.5 years.	Life Expectancy Rate for both males and females increased by 0.5 years.
Immigration	Immigration		2015 - 2024	<ul> <li>Assuming that net migration of Jordanians is stable (11,863 for males, 1.318 for females).</li> </ul>
g			2025 - 2050	Net migration of Jordanians decreased by half (5.932 for males, 659 for females).

Table (1 - 2) Summary of Estimates of Non-Jordanian Population Living in the Kingdom by the Three Scenarios during 2015-2050

Estimation elements	High-basic scenario (continuation of the current situation)	Medium scenario	Low scenario
Syrian nationality	Population growth rate of Syrians is 2.9% during the projection period 2015-2050 (the situation remains unchanged).	Assuming a voluntary return of Syrians in regular numbers to reach their number before the asylum (assuming return of Syrian refugees after 17 years) so their number by end of the projection period reaches half of what they were in 2015.)	Assuming return of about quarter of Syrians during 2015-2030 and return of the third during 2030- 2050.
Palestinian,Iraqi,Yemeni and Libyan nationalities	Stability of the population growth rate of Palestinians, Iraqis, Yemenis and Libyans at 2.2% during 2015-2025 and then decreases to 2.1% during 2025-2030 and another decrease to 1.9% during 2030-2050.	Stability of the population growth rate of Palestinians, Iraqis, Yemenis and Libyans at 2.0% during 2015-2025 and then decreases to 1.6% during 2025-2030 and another decrease to 1.2% during 2030-2050.	Stability of the population growth rate of Palestinians, Iraqis, Yemenis and Libyans at 1.9% during 2015-2025 and then decreases to 1.4% during 2025-2030 and another decrease to 1.0% during 2030-2050.
Egyptian and other nationalities	Stability of Egyptian nationality holders and other nationalities during 2015- 2050.	Gradual decrease in number of Eg reach half by 2050 and stability of	gyptian nationality holders in 2015 to other nationalities during 2015-2050.

### Main results of the population projections:

- Results of the population projections indicate that the population of the Kingdom will increase during 2015-2050 according to the High-Basic Scenario (continuation of the current situation) , where the population is expected to rise from about 9.4 million in mid-2015 to about 12.9 million by mid 2030, an increase of 3.5 million people and to about 19 million by mid 2050. According to the Medium and Low Scenarios, population of Jordan is expected to rise to 13.4 and 12.9 million by mid-2050, an increase of 43% and 37.2% respectively.
- The results indicate that the Jordanian population will double according to the High-Basic Scenario (continuation of current situation) from 6.5 million in mid-2015 to 13.1 million in 2050. Their numbers will increase by 4.4 million and 4 million according to the Medium And Low Scenarios to 10.9 and 10.5 million respectively in 2050.
- Growth rate of the Jordanian population in the age group 15-64 (man power) is expected to grow in a manner that exceeds growth of the dependent population under the age of 15 and above 64 years, where the ratio of the population in the first category is 66% in accordance with the "Low Scenario in 2030" compared with 61% in 2015. As for the *Dependency Ratio* which represents the number of dependents (young people + old people) divided by the total man power, it is expected to decline from 64 individuals per 100 persons in the man power age in 2015 to 52 individuals per 100 persons in the man power age in 2030 according to the "Low Scenario", therefore the rise in population percentage in the working age to the level indicated and also the decreasing dependency rates are indicators of the emergence of the **Demographic Opportunity**, which requires development of appropriate policies to maximize utilization of its positive impacty.
- The results show an increase in the number of non-Jordanians during 2015 2050 according to the High-Basic Scenario (continuation of the current situation) where their number will rise from about 2.9 in mid-2015 to 3.9 million in mid-2030 and to about 5.9 million in the middle In 2050 (i.e., an increase of 3 million compared with 2015). Their numbers will be decrease by 390 and 483 thousand people according to the Medium and Low Scenarios respectively during 2015-2050.

Table (1- 3): Estimated population of the Kingdom during (2015-2050) By the High- Basic Scenario (continuation of current situation)

	-		
Total	Nationality		Year
	Non-Jordanians	Jordanians	rear
9,401,993	2,890,138	6,511,855	2015
10,466,345	3,178,857	7,287,488	2020
11,641,209	3,508,885	8,132,324	2025
12,919,279	3,880,622	9,038,657	2030
14,275,995	4,292,926	9,983,069	2035
15,727,857	4,763,274	10,964,583	2040
17,306,979	5,300,094	12,006,885	2045
19,042,373	5,913,070	13,129,303	2050

Table (1-4): Estimated population of the Kingdom during (2015-2050)

By the Medium Scenario

Total	Nationality		Year
	Non-Jordanians	Jordanians	rear
9,401,992	2,890,137	6,511,855	2015
10,294,911	3,054,097	7,240,814	2020
11,188,353	3,239,395	7,948,958	2025
11,995,549	3,385,627	8,609,922	2030
12,394,488	3,157,883	9,236,605	2035
12,778,164	2,934,233	9,843,931	2040
13,136,053	2,714,931	10,421,122	2045
13,447,942	2,500,244	10,947,698	2050

Table (1 -5): Estimated population of the Kingdom during (2015-2050)

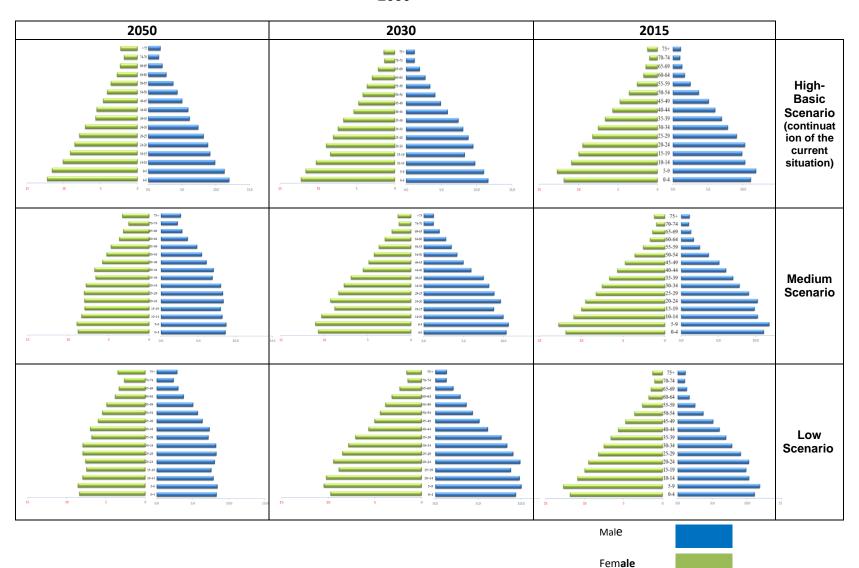
By the Low Scenario

Total	Nationality		Year
iotai	Non-Jordanians	Jordanians	i eai
9,401,992	2,890,137	6,511,855	2015
10,044,153	2,817,574	7,226,579	2020
10,644,336	2,753,048	7,891,288	2025
11,145,040	2,670,790	8,474,250	2030
11,614,924	2,600,609	9,014,315	2035
12,077,487	2,533,184	9,544,303	2040
12,515,598	2,468,661	10,046,937	2045
12,901,390	2,407,186	10,494,204	2050

Table (1-6): Population of the Kingdom according to the three scenarios during (2015-2050)

	Scenario		
Low	Medium	High – Basic(continuation of present situation)	Year
9,401,992	9,401,992	9,401,993	2015
10,044,153	10,294,911	10,466,345	2020
10,644,336	11,188,353	11,641,209	2025
11,145,040	11,995,549	12,919,279	2030
11,614,924	12,394,488	14,275,995	2035
12,077,487	12,778,164	15,727,857	2040
12,515,598	13,136,053	17,306,979	2045
12,901,390	13,447,942	19,042,373	2050

Figure (1 - 1): Population pyramid of the Kingdom according to the three scenarios for 2015, 2030 and 2050



### 2 - FOREWORD

The process of drafting and implementing comprehensive development plans is based on the availability of statistical data and information. Population projections and censuses are the main sources of statistical data that countries seek to make available because they constitute the basis for the planning and policy-making process in the economic, social, health and educational fields. These projections provide data on the development of population size, age structure and quality in addition to many demographic indicators.

In view of the demographic changes in the Kingdom in recent years, most notably the waves of asylum and forced migration by Iraqi, Syrian and other nationalities as a result of the prevailing circumstances in neighbouring countries. The declining reproduction rates contributed to opening the way for the emergence of the signs of the population opportunity and consequently a significant decline in the proportion of young people and an increase in the proportion of the population in the productive ages. This requires drafting of policies necessary to invest this opportunity and to utilize the productive manpower for increasing the rates of economic growth and for improving the level of savings and investment of financial surpluses arising therefrom. But if this opportunity is not utilized, it may pose a challenge to the state institutions in health, social services and other areas.

This report aims to present a diagnosis of the population structure in Jordan and the factors affecting population growth rates. It also reviews the results of population projections for 2015-2050 for Jordanians residing in the Kingdom according to several scenarios. Estimates of numbers of non-Jordanian, Syrians, Iraqis, Libyans and Yemenis for the same period will be included. These scenarios are based on scientific assumptions expected to reflect changes in the main components of population growth (reproduction, mortality and net migration).

The Department of Statistics (DoS) hopes that this report will serve as an input to national programs and plans such as the "Jordan Vision 2025", the "Executive Development Plan for 2016-2018" as well as the "Demographic Opportunity Report in the Kingdom" and its policies and plans of action.

Dr. Qasem Al-Zoubi
Chairman, Population Projections Committee /
Director General, Department of Statistics

# 3 - Formation of the Population Estimates and Projections Committee and its work reference:

The Population Estimates and Projections Committee was formed by virtue of a decision of the Council of Ministers (letter No. 3/4/1/198636 dated 29/4/2015) addressed to H.E. the Minister of Planning and International Cooperation which provides for preparing a mechanism to determine the numbers of Jordanians and non-Jordanians residing in Jordan accurately and periodically through the Department of Statistics (DoS) and in coordination with the concerned authorities. The letter of H.E. the Prime Minister stated that the committee is to be headed by H.E. the Director General of the Department of Statistics and representatives of the following institutions as members:

	Name	Institution
1	Dr. Qasem Al-Zoubi	Committee Chairman/
		Director General of
		Statistics
2	Administrator, Basem Al-	Ministry of Interior
	Dahamsheh	
3	Colonel, Jamal Al Nsour	Public Security Directorate
4	Major, Maamoun	Directorate of General
	Alhalahleh	Intelligence
5	Mr. Uqlah al-Tahat	Department Civil Status
	·	and Passports
6	Dr. Ali Al- Mutlaq	Highr Population Council
7	Dr. Ibrahim Elaywat	Ministry of Planning and
		International Cooperation
8	Dr. Raghda Al-Faouri	Ministry of Labor
	-	
9	Dr. Jamal Al - Masri	Central Bank
10	Mr. Ahmad Al-Momani	Department of Statistics
11	Ms. Manar Al- Jokh	Department of Statistics
12	Ms. Abeer Al-Rahil	Department of Statistics

The following specialists have participated in the work of the Committee:

	Name	Institution	
1	Dr. Sawsan Al-Majali	Former Secretary General,	
		Higher population Council	
2	Dr. Maysoun Al-	Current Secretary General, Higher Population Council	
	Zou'bi	Higher Population Council	
3	Dr. Abdullah Al- Zou'bi	Executive Director of	
		Population Census	
4	Mr. Kamal Saleh	Demographic expert	

The Committee began its work in mid-June 2015 and met eight times in the headquarters of the Department of Statistics (DoS) during which the following tasks were carried out:

- Developing a methodology that included a mechanism for calculating the numbers of Jordanians and non-Jordanians living in the Kingdom.
- Identifying the sources of statistical data that assist in estimating population numbers through the administrative records of some institutions such as: Civil Status Department, Directorate of General Intelligence, Residence and Borders Department, Ministry of Education, UNRWA, Department of Palestinian Affairs, Communications Commission, communications companies (Umniyah, Zain and Orange).
- Drafting and sending the necessary correspondence to many institutions and related parties.
- Preparing the population estimates document of the Kingdom at the end of 2015.

Following the implementation of the General Population and Housing Census - 2015, it was inevitable to prepare the population projections based on the census results. Consequently, the Committee continued to pursue its tasks. Several meetings were held during which the committee discussed the mechanism of preparing a set of assumptions for several scenarios for calculating the projections during 2015-2050 in line with the prevailing demographic and political conditions, future changes and national policies of receiving the migrants and expat workers.

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### 4 - Importance of projections

Population projections are considered to be an effective tool that can be used to forecast future population situations that are seen as the result of changes in the population growth elements (births, deaths and migration), especially with regard to the size, age structure and to determine the date of any expected demographic change and the resulting demographic opportunities that have impacts on the economic and social conditions in the country. On the other hand, it represents the increase in the number of economically active population and low dependency ratio, thus increases the investment rates ... etc. which pose challenges in the absence of appropriate policies to deal with their impacts such as the increasing number of entrants to the labor market, the need to provide services for the elderly and other challenges.

The report aims at estimating the number of Jordanians and non-Jordanians residing in the Kingdom by nationality, their characteristics and their gender and age structure through implementing several scenarios based on the results of the General Population and Housing Census - 2015.

### 5 - Terms used in the projections

- **Projections:** It is the calculation process of future population changes (in their numbers) based on certain assumptions concerning the future trends in fertility, mortality and net migration rates.
- **Estimates:** These are the calculations of the current or previous value of a variable based on the trends of the indicators related to that variable and the changes in those indicators.
- **Census:** It is defined as the largest statistical process through which the listing, counting and identifying of the population characteristics process in a particular area.
- Elements of population growth: These are the three following components that lead to population change (births, deaths and net migration).
- Age and gender population structure: The age and population structure of the population represents the number of males and females in each age group. This structure is a result of the cumulative effect of fertility, mortality and migration.
- **Life table:** Theses are display tables of life and death expectancy for a particular population by the detailed prevailing mortality rates and sex for a certain period of time. The life table provides a regular picture of the prevailing death pattern in society.
- Annual population growth rate: Annual population change.
- Sex ratio: Number of males per 100 females.

- Crude birth rate: number of births in a given year per 1,000 of the population.
- **Crude mortality rate:** number of deaths in a given year per 1,000 of the population.
- Total reproduction rate (fertility): number of children expected to be born by a female 15-49 years of age according to prevailing levels of reproduction.
- **Infant mortality rate:** number of child deaths under one year of age in a given year for every 1,000 births in that year.
- **Life Expectancy at Birth:** number of years the infant is expected to live at any age in the death pattern of the population group to which that person belongs.
- **Demographic dependency ratio:** The percentage of the population (below 15 years and 65 years of age and above) to the total population aged 15-64 years.

# 6 - Kingdom's Population Projection Scenarios for the Jordanians 2015 - 2050

The population size, growth and distribution in any region are influenced by three main elements namely: <u>"reproduction, mortality and net migration"</u>, which in turn are, directly and indirectly, affect and are affected by many demographic, economic and social factors. These factors are the main component of future population projections, demographic and economic changes in population conditions.

The Population and Housing Census-2015 provided data on age and population composition that formed the basis for preparing the current population projections. These data were evaluated prior to their use in the implementation of population projections using several scientific demographic methods that showed high accuracy in age registration data, in addition to minor bias ending in zero and five, which is common in all developed and developing societies alike. For the purposes of implementing population projections, the population numbers were calculated in mid-2015 as shown in Table # (6 – 1).

Table No. (6-1): Total population and Jordanian population in the Kingdom by age group and sex as in mid- 2015

То	Total population		Jorda	anian popula	ition	Age
Total	Female	Male	Total	Female	Male	group
1,070,299	521,278	549,021	741,207	361,538	379,669	4-0
1,143,948	559,033	584,914	802,994	392,316	410,677	5-9
988,330	479,808	508,521	711,152	345,068	366,084	10-14
927,119	439,489	487,631	673,081	325,611	347,470	19-15
925,314	417,512	507,801	632,946	304,234	328,712	24-20
812,465	362,667	449,797	510,784	249,941	260,843	29-25
718,360	331,069	387,291	457,884	231,866	226,018	34-30
636,967	291,979	344,988	422,641	213,498	209,143	39-35
548,680	250,997	297,683	384,064	193,810	190,254	44-40
463,069	210,150	252,920	336,738	167,887	168,851	49-45
342,196	159,096	183,101	256,530	128,146	128,384	54-50
239,354	114,777	124,577	180,845	91,054	89,791	59-55
163,429	79,059	84,370	126,263	62,657	63,606	64-60
132,690	66,672	66,018	103,542	52,957	50,585	69-65
97,612	46,095	51,518	78,902	37,444	41,458	74-70
62,785	31,065	31,720	51,495	25,276	26,219	79-75
50,910	26,186	24,724	40,788	20,796	19,992	+80
9,323,527	4,386,932	4,936,595	6,511,856	3,204,099	3,307,756	Total

Based on the results of the General Population and Housing Census - 2015

# 7 - Scenarios' Assumptions of the Kingdom's Jordanian population projection 2015 - 2050

As noted earlier, population projections are based mainly on three main elements, namely:" *reproduction, mortality and migration*". Assumptions on each of these elements of the three scenarios will be addressed separately.

### **Fertility Assumptions**

Fertility assumptions which are represented by total fertility rates are considered to be the most important assumptions for population projections. The fertility assumptions were based on the data of the Population and Family Health Survey (PFHS) conducted by the Department of Statistics for the three scenarios in view of the specialized and accurate data provided by the survey. Table No. (7 -1) shows the Total Fertility Rate (TFR) during 1976-2012 based on the results of the Population and Family Health Survey (PFHS).

Table No. (7-1): Total Reproduction Rate 1976-2012

Preva	lence rate of	family	Total	
	lanning mean		Reproduction	Year
Overall	Traditional	Modern	•	i cai
rate	means	means	(TFR)Rate	
25.0			7.40	<sup>(1)</sup> 1976
25.7			7.29	1977
26.4			7.17	1978
27.1			7.06	1979
27.9			6.94	1980
28.6			6.83	1981
29.3			6.71	1982
30.0			6.60	<sup>(2)</sup> 1983
40.0	13.1	26.9	5.60	<sup>(3)</sup> 1990
41.9	13.4	28.5	5.43	1991
43.7	13.6	30.1	5.26	1992
45.6	13.9	31.7	5.09	1993
47.4	14.2	33.2	4.91	1994
49.3	14.5	34.8	4.74	1995
51.1	14.7	36.4	4.57	1996
53.0	15.0	38.0	4.40	<sup>(4)</sup> 1997
55.8	14.6	41.2	3.70	<sup>(5)</sup> 2002
56.1	14.7	41.4	3.68	2003
56.3	14.8	41.5	3.66	2004
56.5	14.8	41.7	3.64	2005
56.7	14.9	41.8	3.62	2006
57.0	15.0	42.0	3.60	<sup>(6)</sup> 2007
58.0	16.0	42.0	3.58	2008
59.0	17.0	42.0	3.80	<sup>(7)</sup> 2009
59.7	17.6	42.1	3.54	2010
60.5	18.3	42.2	3.52	2011
61.2	18.9	42.3	3.50	<sup>(8)</sup> 2012

<sup>(1)</sup> Jordan fertility survey1976.

(6) PFHS 2007.

(7) PFHS 2009. (8) PFHS 2012.

It should be noted that the rates for the years between demographic surveys in the years (1976, 1983, 1990, 1997, 2002, 2007 and 2012) were calculated using the following *Linear Completion Equation*:

$$Y ^ = yo + (yo-y1 / xo-x1) * (x ^ -xo)$$

Whereas:

Y ^ = the expected value of the total reproduction rate in a given year

Yo = the average value in the base year

Y1 = the value of the rate in the second year

Xo = base year

X1 = Second Year

X ^ = the year for which the average value is to be estimated

<sup>(5)</sup> PFHS 2001.

<sup>(2)</sup> Jordan fertility survey19 83.

<sup>(3)</sup> PFHS 1990.

<sup>(4)</sup> PFHS 1997.

The data show a decline in the total fertility rate between 1976 and 2002 by 50%, while it decreased by (5.4%) between 2002 and 2012. We notice also a slow decline in the total fertility rate during the period 2002-2012 and its tendency to stabilize during the last ten years. This decline is attributed to many demographic, social and economic factors. Most significant factor is the substantial increase in age at the time of first marriage for females from (21.1 years in 1979) to (24.7 in 1994) and (25.6 years in 2014), as well as the significant increase in the proportion of women who use family planning methods where this ratio has increased from 21.1% in 1972 to 25.0% in 1976 and to 26% in 1983 and to 35% in 1990. The ratio of women who used family planning methods during the 1990s and the subsequent years of the new millennium has increased reaching 53% in 1997, rose to 56% in 2002 \* 1 and to 61% in 2012 \* 2. Social factors contributed to the decline in reproduction levels, the most important of which was female enrollment and continued access to higher educational qualifications. The economic factors also played a role in this field, especially through the increase in the proportion of females in the labor force and their increasing tendency to join the labor market. There are also many other factors that have contributed to this decline but can not be discussed here.

Bongaarts pointed to some factors that have direct impact on the ratio of fertility and that the proportion of married women, use of contraceptives and their effectiveness and non-fertilization after birth are the most important factors in the interpretation of differences in the reproduction levels noting that these factors contributed to explaining about 96% of the change size in reproduction in many population communities \* 3.

The results of applying the Bongaarts model on Jordan's data indicate that non-marriage contributed more than one-third of the decline in human fertility in 2012. The results of the Population and Family Health Survey (PFHS) 2012 show that 42.9% of women aged 15-49 years were "Never Married" where the median age of women at time of first marriage in the age group 25-49 was 22.4 years. This means a substantial increase in the value of the median compared to 1990, which was 19.6 years. Use of family planning methods contributed substantially to the decline in human fertility rate in 2012 by one third, thus underlining the importance of family planning in reducing fertility levels. In contrast, despite the high duration of breastfeeding in Jordan in 2012 (12.5 months), this factor contributed to the lowest decline in human fertility rate by about 20%. It becomes clear from the results that the three intermediate factors contributed significantly to the decline in the human fertility rate of about 87% of the total decline, while the social and economic factors contributed to the remaining ratio of about 13%.

Table No. (7 -2): Relative contribution of the interermediate factors in the decline of human fertility rate in 2012

Non-marriage	% 34.0
Family planning methods	% 33.4
Breastfeeding	% 19.7
Total influence of	% 87.1
intermediate factors	70 07.1
Effect of social and	% 12.9
economic factors	/0 12.9
Total	% 100.0

The correlation coefficient between the total fertility rate and the rate of using modern methods of family planning during the period 1990-2012 shows that there is a very strong inverse correlation between the two variants (value: -0.98). This means that the higher the rate of using contraceptive means, the lower the overall fertility rate and vice versa.

Figure (7-1): Total fertility rate in the Kingdom during (1976-2012)

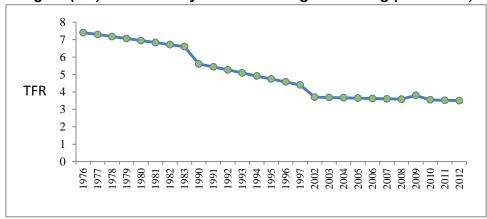
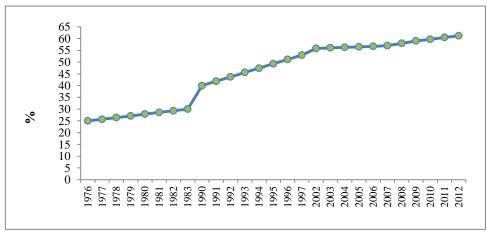


Figure (7-2): Prevalence rate of family planning methods in the Kingdom during 1976-2012.



Based on the above, the fertility assumptions represented by the total fertility rate are summarized as follows:

- a) The High-basic scenario (continuation of current situation): Assuming that the estimated *total fertility rate* for 2015 remains stable at 3.38 during the projection period (2015-2050).
- b) The Medium scenario: Assuming a decline in the *total fertility rate* for 2015 to reach the desired fertility rate value according to the results of the Population and Family Health Survey (PFHS) 2012 which reached 2.4 children for women in the reproduction age (15-49 years) in 2030 and decreased to 2.2 children for women in the reproduction age (15-49 years) in 2050.
- c) The Low scenario: Assuming a decline in the *total fertility rate* from its estimated level in 2015 to reach the planned fertility rate in 2030 (2.1 child for women in the reproduction age 15-49 years) and its stability until 2050.

Table (7- 3) shows values of the predicted total fertility rate by the three assumptions.

Table (7 - 3): Values of the predicted total fertility rate by fertility assumptions and scenarios

	and Scenarios				
Low	Medium	High	Year		
3.38	3.38	3.38	2015		
3.29	3.31	3.38	2016		
3.21	3.25	3.38	2017		
3.12	3.18	3.38	2018		
3.04	3.12	3.38	2019		
2.95	3.05	3.38	2020		
2.87	2.99	3.38	2021		
2.78	2.92	3.38	2022		
2.70	2.86	3.38	2023		
2.61	2.79	3.38	2024		
2.53	2.73	3.38	2025		
2.44	2.66	3.38	2026		
2.36	2.60	3.38	2027		
2.27	2.53	3.38	2028		
2.19	2.47	3.38	2029		
2.10	2.40	3.38	2030		
2.10	2.39	3.38	2031		
2.10	2.38	3.38	2032		
2.10	2.37	3.38	2033		
2.10	2.36	3.38	2034		
2.10	2.35	3.38	2035		
2.10	2.34	3.38	2036		
2.10	2.33	3.38	2037		
2.10	2.32	3.38	2038		
2.10	2.31	3.38	2039		
2.10	2.30	3.38	2040		
2.10	2.29	3.38	2041		
2.10	2.28	3.38	2042		
2.10	2.27	3.38	2043		
2.10	2.26	3.38	2044		
2.10	2.25	3.38	2045		
2.10	2.24	3.38	2046		
2.10	2.23	3.38	2047		
2.10	2.22	3.38	2048		
2.10	2.21	3.38	2049		
2.10	2.20	3.38	2050		

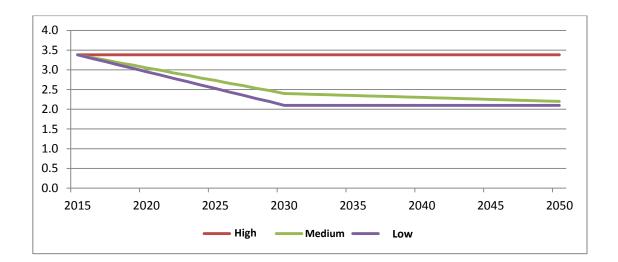


Figure (7 – 3): Predicted total reproduction rates by different assumptions

### Life Expectancy Assumptions

The *Life Expectancy Assumptions* at birth for both males and females were based on <u>life expectancy estimates</u> for males and females which were calculated using the *detailed mortality rates* by age and sex based on the data obtained from the Population and Housing Census 2015. The assumptions related to the life expectancy for males and females during the projections period (2015-2050) are as follows:

- a. <u>The High-basic scenario (continuation of current situation)</u>: Stability of the life expectancy values for males and females calculated for 2015 based on the data of the Population and Housing Census 2015 (72.87 years for males and 74.27 years for females) during the period of population projections (2015-2050).
- b. <u>The Medium scenario:</u> A rise in the life expectancy values for both males and females calculated for 2015 based on the data of the Population and Housing Census 2015 (72.87 years for males and 74.27 years for females) by 1.5 years in 2030 and 0.5 years in 2050.
- c. <u>The Low scenario:</u> A rise in the life expectancy values for both males and females calculated for 2015 based on the data of the Population and Housing Census 2015 (72.87 years for males and 74.27 years for females) by two years in 2030 and 0.5 years in 2050.

Table (7 - 4) shows the life expectancy values at birth for males and females during the population projections years 2015-2050 by the three assumptions.

Table (7- 4): Life Expectancy values at birth for males and females during 2015-2015 by the three assumptions

	Female			Male	)	
Low	Medium	High-basic scenario (continuation of current situation	Low	Medium	High-basic scenario (continuation of current situation)	Year
74.27	74.27	74.27	72.87	72.87	72.87	2015
74.40	74.37	74.27	73.00	72.97	72.87	2016
74.54	74.47	74.27	73.14	73.07	72.87	2017
74.67	74.57	74.27	73.27	73.17	72.87	2018
74.80	74.67	74.27	73.40	73.27	72.87	2019
74.94	74.77	74.27	73.54	73.37	72.87	2020
75.07	74.87	74.27	73.67	73.47	72.87	2021
75.20	74.97	74.27	73.80	73.57	72.87	2022
75.34	75.07	74.27	73.94	73.67	72.87	2023
75.47	75.17	74.27	74.07	73.77	72.87	2024
75.60	75.27	74.27	74.20	73.87	72.87	2025
75.74	75.37	74.27	74.34	73.97	72.87	2026
75.87	75.47	74.27	74.47	74.07	72.87	2027
76.00	75.57	74.27	74.60	74.17	72.87	2028
76.14	75.67	74.27	74.74	74.27	72.87	2029
76.27	75.77	74.27	74.87	74.37	72.87	2030
76.30	75.80	74.27	74.90	74.40	72.87	2031
76.32	75.82	74.27	74.92	74.42	72.87	2032
76.35	75.85	74.27	74.95	74.45	72.87	2033
76.37	75.87	74.27	74.97	74.47	72.87	2034
76.39	75.90	74.27	74.99	74.50	72.87	2035
76.42	75.92	74.27	75.02	74.52	72.87	2036
76.44	75.95	74.27	75.04	74.55	72.87	2037
76.47	75.97	74.27	75.07	74.57	72.87	2038
76.50	76.00	74.27	75.10	74.60	72.87	2039
76.52	76.02	74.27	75.12	74.62	72.87	2040
76.54	76.05	74.27	75.14	74.65	72.87	2041
76.57	76.07	74.27	75.17	74.67	72.87	2042
76.59	76.10	74.27	75.19	74.70	72.87	2043
76.62	76.12	74.27	75.22	74.72	72.87	2044
76.65	76.15	74.27	75.25	74.75	72.87	2045
76.67	76.17	74.27	75.27	74.77	72.87	2046
76.69	76.20	74.27	75.29	74.80	72.87	2047
76.72	76.22	74.27	75.32	74.82	72.87	2048
76.74	76.25	74.27	75.34	74.85	72.87	2049
76.77	76.27	74.27	75.37	74.87	72.87	2050

### **Migration Assumptions**

The migration assumptions for Jordanians are calculated after computing cumulative net migration. This indicator was calculated on the basis of the data from the Public Security Directorate during 2000-2014. The cumulative migration of Jordanians was (- 197,718) which is a <u>negative migration</u> (meaning that number of Jordanian migrants leaving the Kingdom is higher than entrants). The mean / average net migration for the same period was (- 13,181). For the purpose of preparing the population projections, stability of

this mean / average was adopted (i.e., assuming stability of the average net migration of Jordanians for the period 2015-2024 and then decreased by half during 2025-2050), in addition to assuming that the proportion of male migrants is 90% and female immigrants is 10%.

Table (7 -5): Number of Jordanian Arrivals and Departures to the Kingdom during 2000-2014.

Net Migration	Departures	Arrivals	Year
-27499	1625049	1597550	2000
-31725	1754988	1723263	2001
-100017	1726355	1626338	2002
-122505	1532902	1410397	2003
-80740	1320234	1239494	2004
194797	2303493	2498290	2005
-84483	2755332	2670849	2006
-36535	2286751	2250216	2007
198280	2286751	2485031	2008
87520	2530729	2618249	2009
-30860	3615084	3584224	2010
-23109	2522148	2499039	2011
-36512	2435774	2399262	2012
-65889	27070541	27004652	2013
-38441	2490288	2451847	2014
-197718	Cum	ulative Net Migrat	ion
Net migrati	on for Jordanians	2015-2025	-13181
Net migrati	on for Jordanians	2025-2050	-6591
	2024-2015	Males	-11863
	2024-2015	Females	-1318
	2050-2025	Males	-5932
	2050-2025	Females	-659

Source: Public Security Directorate

Based on the above, assumptions related to population projection scenarios for Jordanians residing in the Kingdom are summarized as follows:

- A <u>The High-basic scenario Assumptions (continuation of current situation):</u>
- 1- Stability of the estimated *Total Fertility Rate* (TFR) for 2015 (3.38 children for females in the reproduction age: 15 49 years during the population projections period 2015-2050).
- 2 Stability of the estimated *life expectancy* predictions at birth for males and females in 2015 calculated on the basis of the data of the General Population and Housing Census 2015 (72.87 years for males and 74.27 years for females) during the population projections period (2015-2050).
- 3 Stability of the sex ratio at birth at the level of (105 males per 100 females) during the population projections period (2015-2050).
- 4 Assuming stability of the net migration during 2015 2024 (-11,863 for males and -1,318 for females) and also assuming that it will decrease during 2025-2050 (- 5,932 for males and 659 for females).

### B - The Medium Scenario Assumptions:

- 1 Assuming a decrease in the estimated *total fertility rate* for 2015 to reach the *desired fertility rate* value according to the results of the Population and Family Health Survey 2012 (2.4 children for women in the reproduction age 15-49 years) in 2030 and a further decrease to reach 2.2 children for females in the reproduction age 15-49 years) in 2050.
- 2 A rise in the *estimated life expectancy* for males and females in 2015 calculated on the basis of the Population and Housing Census 2015 by 1.5 years during 2015-2030 and then another rise by 0.5 years during 2030-2050.
- 3 Stability of the sex ratio at birth at the level of 105 males per female during the population projections period (2015-2050).
- 4 Assuming stability of the net migration during 2015 2024 (- 11,863 for males and 1,318 for females) and also a decrease by half during 2025-2050 (- 5,932 for males and 659 for females).

#### C -The Low scenario:

1 - Assuming a decrease in the *total fertility rate* from its estimated level in 2015 to reach to the value of the *planned reproduction rate* in 2030(2.1 for women in the reproduction 15-49 years) in 2030 and that it remains stable till 2050.

- 2 A rise in the *life expectancy values* for males and females calculated for 2015 on the basis of the Population and Housing Census 2015 (72.87 years for males and 74.27 years for females) by two years in 2030 and 0.5 years in 2050.
- 3 Stability of the sex ratio at birth at the level of 105 males per female during the population projections period (2015-2050).
- 4 Assuming stability of the net migration during 2015-2024 (- 11,863 for males and 1,318 for females) and then decreasing by half during 2025-2050 (- 5,932 for males and 659 for females).

# 8 - Results of population projections for Jordanians residing in the Kingdom

Table (8 - 1) shows the number of Jordanians residing in the Kingdom by the three scenarios during the population projections period (2015-2050).

Table (8 - 1): Number of Jordanians residing in the Kingdom by the three scenarios during the population projections period (2015-2050).

	scenario		
Low	Medium	High-basic scenario (continuation of current situation)	year
6,511,855	6,511,855	6,511,855	2015
7,226,579	7,240,814	7,287,488	2020
7,891,288	7,948,958	8,132,324	2025
8,474,250	8,609,922	9,038,657	2030
9,014,315	9,236,605	9,983,069	2035
9,544,303	9,843,931	10,964,583	2040
10,046,937	10,421,122	12,006,885	2045
10,494,204	10,947,698	13,129,303	2050

Table (8 - 2) shows the number of Jordanians aged 15-64 years by the three scenarios during the population projections period (2015-2050).

Table (8 - 2): Number of Jordanians aged 15-64 years by the three scenarios during the population projections period (2015-2050).

	scenario		
Low	Medium	High-basic scenario (continuation of current situation)	Year
3,981,776	3,981,776	3,981,776	2015
4,523,800	4,523,254	4,521,616	2020
5,106,870	5,104,850	5,098,452	2025
5,559,116	5,554,609	5,540,293	2030
6,049,932	6,057,816	6,083,248	2035
6,464,104	6,515,357	6,674,931	2040
6,779,889	6,911,109	7,318,276	2045
7,047,416	7,268,169	7,997,875	2050

Table (8 - 3) shows the predicted number of Jordanians below 15 years of age and those aged 65 years and above by the three scenarios during the population projections period (2015-2050).

Table (8 - 3): Predicted number of Jordanians below 15 years of age and those aged 65 years and above by the three scenarios during the population projections period (2015-2050).

Low s	cenario	Medium	scenario	(continuatio	c scenario on of current ution)	Year
65 years and above	Less than 15 years	65 years and above	Less than 15 years	65 years and above	Less than 15 years	
274,727	2,255,351	274,727	2,255,352	274,727	2,255,352	2015
310,039	2,392,740	309,733	2,407,827	308,821	2,457,052	2020
377,389	2,407,029	376,083	2,468,025	372,448	2,661,423	2025
490,814	2,424,318	487,502	2,567,810	478,293	3,020,070	2030
644,601	2,319,782	638,422	2,540,367	620,654	3,279,167	2035
798,558	2,281,644	789,065	2,539,509	760,525	3,529,126	2040
938,120	2,328,929	925,171	2,584,842	884,236	3,804,373	2045
1,059,762	2,387,025	1,043,490	2,636,039	989,379	4,142,049	2050

Table (8 - 4) shows the percentage of young people (under 15 years) and percentage of old people (65 years and above) by the three scenarios during the population projections period (2015-2050).

Table (8 – 4): Percentage of young people (under 15 years) and percentage of old people (65 years and above) by the three scenarios during the population projections period (2015-2050).

Low sc	enario	Medium scenario		(continuation	High-basic scenario (continuation of current situation)	
65 years and above	Less than 15 years	65 years and above	Less than 15 years	65 years and above	Less than 15 years	Year
4.2	34.6	4.2	34.6	4.2	35.0	2015
4.3	33.1	4.3	33.3	4.2	34.0	2020
4.8	30.5	4.7	31.1	4.6	33.0	2025
5.8	28.6	5.7	29.8	5.3	33.0	2030
7.2	25.7	6.9	27.5	6.2	33.0	2035
8.4	23.9	8.0	25.8	6.9	32.0	2040
9.3	23.2	8.9	24.8	7.4	32.0	2045
10.1	22.7	9.5	24.1	7.5	32.0	2050

Based on the above information, the results show that growth rate of the Jordanian population in the age group 15-64 (manpower) exceeds growth of the dependent population under the age of 15 and over 64 years, where percentage of the population in the first category is 65.6% according to the Low Scenario in 2030 compared with 61% in 2015. As for the Age Dependency Ratio, which represents the number of dependents (young people under the age of 15 plus (+) older than 64 years) divided by total manpower in the age group (15-64), it is expected to decline from 64 individual per 100 persons in 2015 to 52 individuals in 2030 according to the Low Scenario ... Accordingly, the rise in the percentage of the population in the working age to the referenced level and also the decline in the percentage of age dependency are among the indicators showing the emergence of the population opportunity noting that the population opportunity will start to emerge as of 2030 to reach the peak in 2040 at the rate of 47 individuals per 100 persons when the percentage of Jordanians in the Jordanian population in the age of manpower exceeds the ratio of dependents significantly. This requires appropriate policies to maximize utilization of the positive effects of this opportunity.

Table (8 - 5): Age dependency ratios by the three scenarios during the population projections period (2015-2050)

Low	Medium	High	Year
63.5	63.5	63.5	2015
59.7	60.1	61.2	2020
54.5	55.7	59.5	2025
52.4	55.0	63.1	2030
49.0	52.5	64.1	2035
47.7	51.1	64.3	2040
48.2	50.8	64.1	2045
48.9	50.6	64.2	2050

Figure (8- 1): Population pyramid for Jordanians by the three scenarios for the years 2015, 2030 and 2050 2030 2015 2050 High scenario Medium scenario Low scenario

### 9 - Estimations Assumptions of the Number of Non-Jordanians by Nationality during 2015-2050

Total number of non-Jordanians living in the Kingdom was 2,918,125 according to the results of the General Population and Housing Census – 2015. The results have shown that 2,720,740 of them are Syrians, Egyptians, Palestinians, Iraqis, Yemenis and Libyans (93.2%). Table number (9-1) shows the non-Jordanian population by nationality based on the results of the General Population and Housing Census – 2015.

Table (9-1): Non - Jordanian population by nationality based on the results of the General Population and Housing Census - 2015

Total -	Ş	Sex	Nationality
	Female	Male	<ul> <li>Nationality</li> </ul>
1,265,514	637,288	628,226	Syrians
636,270	112,636	523,634	Egyptians
634,182	285,120	349,062	Palestinians
130,911	64,892	66,019	Iraqis
31,163	12,407	18,756	Yemenis
22,700	9,125	13,575	Lybians
197,385	117,875	79,510	Other nationalities
2,918,125	1,239,343	1,678,782	Total

For estimating the non-Jordanian population, their numbers were calculated by age group, sex and nationality in mid-2015. Table number (9-2) shows the distribution of non-Jordanian population in mid-2015 by age group and sex. Also, table number (9-3) shows numbers of Syrian, Egyptians, Palestinians, Iraqis, Yemenis and Libyans by age group in mid-2015.

Table (9-2): Distribution of non-Jordanian population in mid-2015 by age group and sex

Total	S	A	
	Female	Male	Age group
340,031	165,086	174,945	4-0
353,037	172,627	180,409	9-5
287,465	139,739	147,726	14-10
262,254	118,187	144,067	19-15
297,816	117,088	180,728	24-20
304,801	115,778	189,023	29-25
265,195	102,286	162,909	34-30
219,829	81,401	138,428	39-35
169,459	59,622	109,837	44-40
130,247	44,194	86,053	49-45
88,272	32,390	55,882	54-50
60,403	24,811	35,592	59-55
38,527	17,180	21,348	64-60
30,438	14,409	16,028	69-65
19,687	9,124	10,563	74-70
22,676	11,813	10,863	+75
2,890,137	1,225,735	1,664,401	Total

Table (9- 3): Number of Syrians, Egyptians, Palestinians, Iraqis, Yemenis, and Libyans by age group in mid-2015

			Nationa	ality			Age		
Other	Lybians	Yemenis	Iraqis	Palestinians	Egyptians	Syrians	group		
10,027	2,450	2,594	10,218	76,090	33238	205,414	4-0		
9,942	2,501	2,475	12,402	87,621	40330	197,766	9-5		
8,310	1,941	2,222	11,925	74,058	34155	154,854	14-10		
11,043	1,775	2,531	12,337	70,091	36674	127,803	19-15		
28,356	2,177	5,328	12,813	68,208	79325	101,610	24-20		
34,729	1,610	4,375	10,151	45,839	112076	96,022	29-25		
27,693	1,659	2,992	8,060	40,967	90464	93,360	34-30		
21,421	1,943	2,397	7,870	39,180	72096	74,923	39-35		
14,395	1,828	1,600	8,066	32,231	54184	57,156	44-40		
10,465	1,640	1,215	7,827	23,723	41403	43,974	49-45		
7,190	1,151	963	7,012	18,844	21603	31,509	54-50		
5,262	678	746	5,726	13,028	11913	23,050	59-55		
3,281	405	548	4,573	8,897	5449	15,374	64-60		
1,973	260	364	3,889	11,179	2243	10,530	69-65		
1,112	198	215	2,950	8,383	611	6,218	74-70		
2,186	215	225	3,530	8,280	506	7,733	+75		
197,385	22,429	30,791	129,349	626,617	636270	1,247,296	Total		

Assumptions to estimate number of non-Jordanians residing in Jordan were made after classifying them into <u>four groups</u> by the main nationalities - in view of different reasons for their residence - as follows:

- Assumptions for estimating the numbers of Syrians.
- Assumptions for estimating the numbers of Palestinians.
- Assumptions for estimating the numbers of Iraqis, Yemenis and Libyans.
- Assumptions for estimating the numbers of Egyptians and other nationalities.

### Assumptions for estimating the numbers of Syrians

Six assumptions were adopted for the Syrians residing in the Kingdom on the basis of the current situation and the possibility of returning at varying proportions during 2015-2050 based on the results of the *General Population* and *Housing Census* – 2015 and data of the Ministry of Interior. Collective views of the United Nations High Commissioner for Refugees (UNHCR) staff which include "the return possibility of Syrian refugees after 17 years noting that their return is linked to security situation in their country and the reconstruction of infrastructure" were taken into consideration.

- **1 Assumption (A):** Stability of the population growth rate of Syrians at 2.9% during the projections period 2015-2050 (continuation of the current situation). The results of this assumption are considered as an alert.
- **2 Assumption (B):** Assuming a voluntary return of the Syrians in regular numbers till the number becomes as it was before the influx (based on data of the Ministry of Interior).
- **3 Assumption (C):** Assuming return of about <u>a quarter</u> of the Syrians during 2015-2030 and return of <u>the third</u> during 2030-2050.
- **4 Assumption (D):** Assuming a decline in the number of Syrians during the population projections period 2015-2030 by 40% and return of one <u>third</u> during 2030-2050.
- **5 Assumption (E):** Assuming return of about <u>half</u> of the Syrians during 2015-2030 and return of one <u>third</u> during 2030-2050.
- **6 Assumption (F):** Assuming a steady growth rate (1.9%) during 2015-2025 and then decreases to (1.4%) during 2025-2030 according to the growth rates of Jordanians which were shown by the *low scenario* of population projections, and the start of their return after 2030 regularly (Assuming return of Syrian refugees after 17 years) so that their number at the end of the projections period reaches half of their number in 2015.

Table (9- 4): Estimated number of Syrians by assumptions as in the middle of the years during (2015-2050)

Assumption (F)	Assumption (E)	Assumption (D)	Assumption (C)	Assumption (B)	Assumption (A)	Year
1,247,296	1,247,296	1,247,296	1,247,296	1,247,296	1,247,296	2015
1,371,600	1,040,069	1,078,712	1,139,538	1,054,153	1,441,924	2020
1,508,292	832,841	910,127	1,031,779	890,918	1,666,921	2025
1617656	625,614	741,543	924,020	752,960	1,927,027	2030
1369154	572,437	678,512	845,478	746,752	2,227,719	2035
1120652	519,260	615,481	766,937	740,595	2,575,332	2040
872150	466,082	552,450	688,395	734,489	2,977,185	2045
623648	412,905	489,419	609,853	728,433	3,441,744	2050

### **Assumptions of estimating the numbers of Palestinians**

It has been assumed that growth rate of the Palestinian population is in accordance with the Jordanians growth rate as shown in the population projections scenarios for Jordanians during 2015-2050.

- 1 **Assumption (A):** The growth rate of 2.2% was assumed to be steady during 2015-2025 and to decrease to 2.1% during 2025-2030 and to decrease to 1.9% during 2030-2050.
- **2 Assumption (B):** The growth rate of 2% was assumed to be steady during 2015-2025 and to decrease to 1.6% during 2025-2030 and to decrease to 1.2% during 2030-2050.
- **3 Assumption (C):** The growth rate of 1.9% was assumed to be steady during 2015-2025 and to decrease to 1.4% during 2025-2030 and to decrease to 1% during 2030-2050.

Table (9- 5): Estimated number of Palestinians by the assumptions as in the middle of the years during (2015-2050)

Assumption (C)	Assumption (B)	Assumption (A)	Year
626,617	626,617	626,617	2015
689,065	692,519	699,479	2020
757,737	765,352	780,813	2025
812,679	829,096	867,258	2030
854,346	880,364	953,687	2035
898,149	934,803	1,048,731	2040
944,198	992,608	1,153,246	2045
992,608	1,053,988	1,268,177	2050

#### Assumptions of estimating the numbers of Iraqis, Yemenis and Libyans

It has been assumed that growth rate of the Iraqis, Yemenis and Libyans is in accordance with the growth rate of Jordanians as shown in the population projection scenarios for Jordanians during 2015-2050, with the exception of Assumption (D). We have refered to the data of the General Population and Housing Census – 2015 to determine the number of people from these nationalities, then we have assumed that their number will decrease successively till end of the population projections period to reach <u>half</u> which conforms to their previous data.

**1 – Assumption (A):** The growth rate of 2.2% was assumed to be steady during 2015-2025 and to decrease to 2.1% during 2025-2030 and to decrease to 1.9% during 2030-2050.

- **2 Assumption (B):** The growth rate of 2% was assumed to be steady during 2015-2025 and to decrease to 1.6% during 2025-2030 and to decrease to 1.2% during 2030-2050.
- **3 Assumption (C):** The growth rate of 1.9% was assumed to be steady during 2015-2025 and to decrease to 1.4% during 2025-2030 and to decrease to 1% during 2030-2050.
- **4 Assumption (D):** Assuming a gradual decline in their number successively till end of the population projections period till it reaches <u>half</u> (based on their number in 2004).

Table (9- 6): Estimated number of Iraqi, Yemeni and Libyan population by assumptions as in the middle of the years during (2015-2050)

As	Assumption (D)		Assumption (C)		Assumption (B)		Assumption (A)		(A)	Voor		
Libyan	Yemeni	Iraqi	Libyan	Yemeni	Iraqi	Libyan	Yemeni	Iraqi	Libyan	Yemeni	Iraqi	Year
22,429	30,791	129,349	22,429	30,791	129,349	22,429	30,791	129,349	22,429	30,791	129,349	2015
19,551	27,191	123,238	24,664	33,860	142,240	24,788	34,030	142,953	25,037	34,372	144,390	2020
16,673	23,591	117,127	27,123	37,234	156,416	27,395	37,609	157,988	27,949	38,368	161,179	2025
13,795	19,991	111,016	29,089	39,934	167,757	29,677	40,741	171,146	31,043	42,616	179,024	2030
10,917	16,391	104,905	30,581	41,982	176,358	31,512	43,260	181,729	34,136	46,863	196,865	2035
8,038	12,791	98,794	32,148	44,134	185,400	33,460	45,935	192,967	37,538	51,533	216,484	2040
5,160	9,191	92,683	33,797	46,397	194,906	35,530	48,776	204,899	41,279	56,669	238,059	2045
2,282	5,591	86,572	35,530	48,776	204,899	37,727	51,792	217,569	45,393	62,317	261,783	2050

## Assumptions of estimating the numbers of Egyptians and other nationalities

Data of the *Public Security Directorate* for previous years have shown stability in the number of population residing in the Kingdom from the Egyptian nationality and other nationalities. Data of the Ministry of Labor have shown that most of them are expatriate workers who arrive alone without their families. The ministry seeks to legalize numbers of the Egyptian expatriates by restricting some professions (limited to Jordanians only). Based on the above, two assumptions have been adopted as shown below:

- 1 **Assumption** (A): It has been assumed that numbers of Egyptians and other nationalities are stable during the population projections period (2015-2050).
- **2 Assumption (B)**: It has been assumed that numbers of Egyptians decreases by half til end of the projection period.

Table (9- 7): Estimated number of Egyptians and other nationalities as in the middle of the year during (2015-2050)

Other nationalities	Egyptian nationals(B)	Egyptian nationals(A)	Year
197,385	636270	636,270	2015
197,385	590822	636,270	2020
197,385	545374	636,270	2025
197,385	499926	636,270	2030
197,385	454479	636,270	2035
197,385	409031	636,270	2040
197,385	363583	636,270	2045
197,385	318135	636,270	2050

# 10 – Estimation scenarios of the numbers of non – Jordanians in the middle of 2015, 2030 and 2050 by nationality and age group

On the basis of the population estimation results for the non-Jordanians and for preparing the tables of the total population in the Kingdom, part of the assumptions for the non-Jordanians were adopted by the main nationalities to reach the three main scenarios as follows:

### 1 – The High-basic scenario (continuation of current situation):

- Stability of the population growth rate of Syrians (2.9%) during the projection period 2015-2050 (the situation remains the same).
- Stability of the growth rate of Palestinians, Iraqis, Yemenis and Libyans (2.2%) during 2015-2025 and to decrease to 2.1% during 2025-2030 and to decrease to 1.9% during 2030-2050.
- Stability of the numbers of Egyptians and other nationalities during 2015-2050.

#### 2 - The Medium Scenario:

Stability of the growth rate (1.9%) during 2015-2025 and to decrease to 1.4% during 2025-2030 in accordance with the growth rates of Jordanians, including the low scenario of population projections, and beginning of their return after 2030 in regular numbers (assuming return of Syrians after 17 years) so that their number at the end of the projection period becomes half of their number in 2015.

- Stability of the growth rate of the Palestinians, Iraqis, Yemenis and Libyans (2%) during 2015-2025 and to decrease to 1.6% during 2025-2030 and to decrease to 1.2% during 2030-2050.
- Decrease in the number of Egyptians by half till end of the projection period.

### 3 - The Low scenario:

- Assuming return of <u>quarter</u> of the Syrians during 2015-2030 and return of one <u>third</u> during 2030-2050.
- Stability of the growth rate of the Palestinians, Iraqis, Yemenis and Libyans (1.9%) during 2015-2025 and to decrease to 1.4% during 2025-2030 and to decrease to 1.0% during 2030-2050.
- Decrease in the number of Egyptians by <u>half</u> till end of the projections period.

# 11 - Results of Resident Non-Jordanian Population Estimates in the Kingdom (2015-2050).

The High-basic scenario (continuation of current situation):

Table No. (11-1): Distribution of non-Jordanian population as in mid-2030 by the High Scenario (continuation of current situation), age group and sex.

Total	Se	Ago ground	
	Female	Male	Age group
487056	236548	250508	4-0
501135	245137	255998	9-5
406474	197759	208714	14-10
365211	167363	197848	19-15
387186	161257	225929	24-20
380930	155523	225407	29-25
336687	138160	198527	34-30
280395	110331	170063	39-35
217399	82161	135238	44-40
167423	61441	105982	49-45
116185	45275	70910	54-50
80713	34508	46205	59-55
52445	23924	28521	64-60
42202	20108	22095	69-65
27587	12890	14697	74-70
31595	16633	14962	+75
3880622	1709019	2171604	Total

Table (11-2): Distribution of non-Jordanian population as in mid-2050 by the high scenario (continuation of current situation), age group and sex.

Total	Se	Sex		
	Female	Male	Age group	
794959	386237	408722	4-0	
808482	395649	412832	9-5	
652205	317643	334562	14-10	
575909	268203	307706	19-15	
567221	251430	315791	24-20	
537191	237913	299278	29-25	
484408	212981	271427	34-30	
404261	170160	234100	39-35	
314785	128674	186111	44-40	
242837	96945	145892	49-45	
172345	71610	100734	54-50	
121615	54259	67356	59-55	
80343	37547	42797	64-60	
65030	31241	33789	69-65	
42654	20198	22456	74-70	
48825	25993	22832	+75	
5913070	2706684	3206386	Total	

The Medium Scenario:

Table (11- 3): Distribution of non-Jordanian population as in mid-2030 by the Medium scenario, age group and sex

Total	5	٨٥٥	
	Female	Male	Age
423421	205599	217822	4-0
437046	213710	223336	9-5
355256	172792	182463	14-10
320370	147366	173004	19-15
339594	143706	195888	24-20
329323	138601	190721	29-25
290877	122399	168478	34-30
243232	97976	145257	39-35
188948	72942	116006	44-40
145549	54480	91069	49-45
102037	40199	61838	54-50
71214	30650	40565	59-55
46585	21302	25283	64-60
38154	18167	19987	69-65
25198	11708	13491	74-70
28823	15135	13688	+75
3385626	1506731	1878895	Total

Table (11-4): Distribution of non-Jordanian population as in mid-2050 by the Medium scenario, age group and sex

Total	Sc	Sex		
	Female	Male	Age group	
283010	137212	145798	4-0	
305602	149168	156433	9-5	
254442	123350	131093	14-10	
239171	109753	129418	19-15	
267725	111894	155831	24-20	
243021	104023	138998	29-25	
209893	88916	120977	34-30	
181369	73260	108109	39-35	
143610	54584	89026	44-40	
111023	40868	70155	49-45	
80793	30872	49921	54-50	
56683	23826	32856	59-55	
37952	17043	20909	64-60	
34753	16277	18476	69-65	
24284	10772	13512	74-70	
26912	13924	12988	+75	
2500244	1105743	1394501	Total	

The Low scenario:

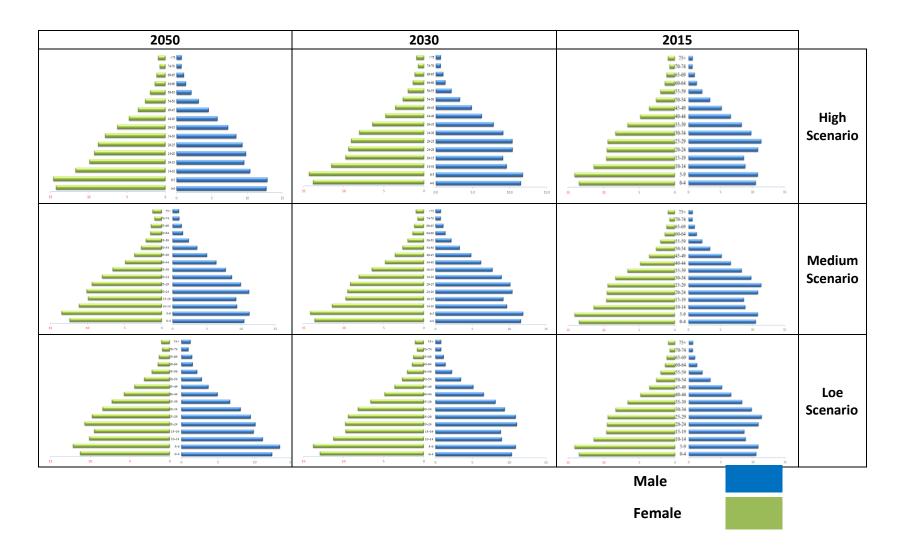
Table (11- 5): Distribution of non - Jordanian population as in mid - 2030 by Low scenario, age group and sex

Total	Se	Sex		
	Female	Male	Age group	
306794	148858	157936	4-0	
324315	158459	165856	9-5	
266778	129515	137262	14-10	
247025	111990	135036	19-15	
280768	112610	168159	24-20	
274300	108503	165797	29-25	
237551	94461	143091	34-30	
200221	76308	123913	39-35	
156018	56230	99788	44-40	
120193	41839	78354	49-45	
83782	31077	52704	54-50	
57867	23902	33965	59-55	
37657	16802	20856	64-60	
31887	15003	16884	69-65	
21433	9702	11730	74-70	
24201	12552	11649	+75	
2670790	1147812	1522979	Total	

Table (11- 6): Distribution of non - Jordanian population as in mid - 2050 by Low scenario, age group and sex

Total	Sex		Ago group
	Female	Male	Age group
271790	131772	140018	4-0
293129	143076	150053	9-5
243899	118245	125655	14-10
229261	105105	124157	19-15
257930	107552	150378	24-20
235888	100638	135251	29-25
203603	86051	117552	34-30
175507	70737	104770	39-35
138695	52576	86119	44-40
107167	39295	67872	49-45
77704	29617	48087	54-50
54451	22853	31598	59-55
36370	16319	20050	64-60
33100	15508	17592	69-65
23065	10242	12823	74-70
25627	13250	12377	+75
2407185	1062836	1344350	Total

Figure (11-1): Population pyramid for non-Jordanians by the three scenarios for the years 2015, 2030 and 2050



# 12 - Population of the Kingdom in the middle of 2030 and 2050 by the three scenarios, nationality and age group

The High-basic scenario (continuation of current situation):

Table (12- 1): Distribution of the Kingdom's estimated population by High-Basic Scenario (Continuation of Current Situation), age group and sex as in mid-2030

Total	Sex		A = 0 = = = = = = = = = = = = = = = = =
	Female	Male	- Age group
1587957	773360	814597	4-0
1508141	736114	772027	9-5
1318637	642534	676102	14-10
1101755	526714	575041	19-15
1184914	551319	633596	24-20
1085802	497901	587900	29-25
1002240	460369	541871	34-30
904753	410434	494318	39-35
719180	327545	391635	44-40
613363	287153	326210	49-45
521322	250149	271173	54-50
438907	216230	222678	59-55
352631	175607	177024	64-60
254472	128738	125735	69-65
159420	81704	77716	74-70
165786	87765	78020	+75
12,919,279	6,153,637	6,765,643	Total

Table (12- 2): Distribution of the Kingdom's estimated population by High-Basic Scenario (Continuation of Current Situation), and age and sex as in mid-2050

Total	Sex		A a a araun
	Female	Male	- Age group
2,309,252	1,124,625	1,184,628	4-0
2,181,275	1,064,969	1,116,305	9-5
1,907,168	929,569	977,599	14-10
1,744,400	838,109	906,292	19-15
1,657,799	783,587	874,213	24-20
1,533,806	724,373	809,434	29-25
1,384,605	652,358	732,248	34-30
1,128,541	523,688	604,852	39-35
1,095,430	510,271	585,159	44-40
926,382	428,794	497,588	49-45
806,742	378,994	427,746	54-50
699,236	333,361	365,875	59-55
521,849	256,398	265,452	64-60
425,734	218,458	207,276	69-65
326,812	169,748	157,064	74-70
393,342	213,561	179,781	+75
19,042,373	9,150,863	9,891,510	Total

### The Medium Scenario:

Table (12- 3): Distribution of the estimated population of the Kingdom by the Medium scenario, age group and sex as in mid-2030

Total	Sex		A
	Female	Male	- Age group
1,264,353	615,697	648,655	4-0
1,300,249	634,724	665,525	9-5
1,218,932	594,046	624,885	14-10
1,057,520	507,040	550,480	19-15
1,138,179	534,194	603,985	24-20
1,035,196	481,485	553,711	29-25
957,559	445,200	512,359	34-30
868,833	398,733	470,100	39-35
691,971	318,970	373,001	44-40
592,959	280,931	312,028	49-45
509,013	245,938	263,076	54-50
431,670	213,393	218,278	59-55
349,437	174,170	175,267	64-60
253,068	128,001	125,068	69-65
159,312	81,601	77,712	74-70
167,297	88,171	79,125	+75
11,995,548	5,742,295	6,253,253	Total

Table (12-4): Distribution of the estimated population of the Kingdom by the Medium scenario, age group and sex as in mid-2050

Tatal	S	Sex	
Total	Female	Male	Age group
1,173,101	571,210	601,891	4-0
1,190,183	580,474	609,708	9-5
1,115,809	543,392	572,419	14-10
1,074,379	517,143	557,236	19-15
1,103,101	519,563	583,538	24-20
1,099,886	522,360	577,526	29-25
1,065,512	506,614	558,898	34-30
909,710	428,795	480,915	39-35
929,701	438,864	490,837	44-40
800,748	375,690	425,058	49-45
722,876	341,834	381,042	54-50
643,859	307,219	336,639	59-55
489,637	240,497	249,140	64-60
407,192	209,047	198,146	69-65
321,480	166,637	154,843	74-70
400,767	215,853	184,915	+75
13,447,942	6,485,192	6,962,750	Total

### The Low scenario:

Table (12-5): Distribution of the estimated population of the Kingdom by the Low scenario, age group and sex as in mid-2030

Total	Sc	Sex	
Total	Female	Male	Age group
1,064,982	518,561	546,421	4-0
1,141,694	557,086	584,607	9-5
1,115,532	543,501	572,029	14-10
984,345	471,741	512,606	19-15
1,079,594	503,195	576,400	24-20
980,455	451,503	528,952	29-25
904,555	417,405	487,151	34-30
826,187	377,234	448,953	39-35
659,419	302,436	356,983	44-40
568,068	268,511	299,557	49-45
491,364	237,096	254,268	54-50
419,086	206,993	212,093	59-55
341,424	170,088	171,337	64-60
247,725	125,276	122,449	69-65
156,361	80,004	76,356	74-70
164,250	86,349	77,900	+75
11,145,041	5,316,980	5,828,061	Total

Table (12- 6): Distribution of the estimated population of the Kingdom by the Low scenario, age and sex as in mid-2050

Total	Sex		Ago group
Total	Female	Male	Age group
1,076,340	524,009	552,331	4-0
1,097,233	535,076	562,157	9-5
1,022,270	497,742	524,530	14-10
972,730	467,667	505,064	19-15
1,011,604	475,257	536,348	24-20
1,047,845	496,955	550,891	29-25
1,045,221	496,858	548,363	34-30
904,874	426,711	478,163	39-35
926,184	437,463	488,721	44-40
798,513	374,828	423,685	49-45
721,853	341,486	380,366	54-50
644,254	307,393	336,861	59-55
490,914	241,058	249,854	64-60
408,908	209,888	199,020	69-65
324,091	168,005	156,086	74-70
408,556	219,802	188,753	+75
12,901,389	6,220,198	6,681,191	Total

Number of Jordanian and non-Jordanian population in the Kingdom during the period (2015-2050) by the three scenarios, nationality and age group

Table (12- 7): Estimated population of the Kingdom by the High-Basic Scenario (Continuation of Current Conditions) during (2015-2050).

Total	Nationality		Year
iolai	Non-Jordanians	Jordanians	i eai
9,401,993	2,890,138	6,511,855	2015
10,466,345	3,178,857	7,287,488	2020
11,641,209	3,508,885	8,132,324	2025
12,919,279	3,880,622	9,038,657	2030
14,275,995	4,292,926	9,983,069	2035
15,727,857	4,763,274	10,964,583	2040
17,306,979	5,300,094	12,006,885	2045
19,042,373	5,913,070	13,129,303	2050

Table (12-8): Estimated population of the Kingdom by the Medium Scenario during (2015-2050)

Total	Nationality		Voor
	Non-Jordanians	Jordanians	Year
9,401,992	2,890,137	6,511,855	2015
10,294,911	3,054,097	7,240,814	2020
11,188,353	3,239,395	7,948,958	2025
11,995,549	3,385,627	8,609,922	2030
12,394,488	3,157,883	9,236,605	2035
12,778,164	2,934,233	9,843,931	2040
13,136,053	2,714,931	10,421,122	2045
13,447,942	2,500,244	10,947,698	2050

Table (12-9): Estimated population of the Kingdom by the Low Scenario during (2015-2050)

Total	Nationality		Year
	Non-Jordanians	Jordanians	Teal
9,401,992	2,890,137	6,511,855	2015
10,044,153	2,817,574	7,226,579	2020
10,644,336	2,753,048	7,891,288	2025
11,145,040	2,670,790	8,474,250	2030
11,614,924	2,600,609	9,014,315	2035
12,077,487	2,533,184	9,544,303	2040
12,515,598	2,468,661	10,046,937	2045
12,901,390	2,407,186	10,494,204	2050

Table (12- 10) shows a summary of the Kingdom's population by the three scenarios during 2015-2050.

Table (12- 10): Population of the Kingdom by the three scenarios during population projections period (2015-2050)

Scen	Scenario				
Low	Medium	High-Basic Scenario (Continuation of Current Conditions)	Year		
9,401,992	9,401,992	9,401,993	2015		
10,044,153	10,294,911	10,466,345	2020		
10,644,336	11,188,353	11,641,209	2025		
11,145,040	11,995,549	12,919,279	2030		
11,614,924	12,394,488	14,275,995	2035		
12,077,487	12,778,164	15,727,857	2040		
12,515,598	13,136,053	17,306,979	2045		
12,901,390	13,447,942	19,042,373	2050		

#### 13 - Recommendations of the Committee

- Continuation of the Population Projections Committee's work to ensure continuous cooperation among the participating institutions and departments for preparing population projections and also for providing the Committee with the required data and ideas in order to carry out the required updates on the population projections of the Jordanians.
- The Committee should make the population projections at the governorates' level in the next stage due to its importance and the urgent need by data users and for use in the planning processes, especially after the adoption of the decentralization law.
- To ask the Department of Statistics (DoS) to provide the Higher Population Council with a copy of the population projections results in view of its importance as a basic source for preparing the *Population Opportunity Document* and the related Action plans.
- Updating and reviewing the <u>Jordan Vision 2025</u> and the <u>Executive</u> <u>Development Plan of the Government for the years 2016-2018</u> in the light of the report results.