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Egyptian Female Labor Force Participation and the Future of Economic Empowerment

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About the Book

According to the United Nations' agenda for 2030 for sustainable development, namely, the fifth goal "Achieve gender equality and empower all women and girls," (UN,2015), one of the women empowerment components is the economic empowerment. This book sheds light on the Egyptian females' participation in the labor force during the last three decades up to 2030. The primary objective is to study trends in females' participation in the labor force and to predict the future participation.

This book consists of five chapters. The first chapter entitled "History of Women's Economic Empowerment" sheds light on the history of the importance of the women's economic empowerment and the national, international conventions and strategies that promote the women's economic empowerment.

The second chapter entitled "Demographic Profile of Egypt" provides a background on the trends of the most important demographic characteristics during the last decades, for example, age and sex distributions, population distribution by place of residence among the main regions in Egypt, fertility and mortality levels, demographic transition, and demographic window.

The third chapter entitled "Trends in Egyptian Female Participation in Labor Force" studies the trends of female's participation in the labor force in Egypt during the last three decades, using descriptive analysis, in addition to working life tables to provide indicators for female's participation in the labor force.

The fourth chapter entitled "Future of Egyptian Female Participation in Labor Force" provides different scenarios to predict female participation in the labor force in Egypt in 2030.

The fifth chapter "Summary and Recommendations to Policy Makers" provides the conclusion of all chapters, and open the dissection on some main topics that needed to be raised and discussed to improve Egyptian females' participation in the labor force and to support the decision and policy makers.

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About the Author

Dr. Huda has over fifteen years of experience as a statistician and demographer. Her main areas of interest include projection of human capital stock, women's economic empowerment, agent-based models, and reproductive health and family planning. She has been a part of many international collaborative works, such as The International Institute for Applied Systems Analysis (IIASA), Max Plank Institute for Demographic Research (MPIDR), World Health Organization (WHO), The United Nations Children's Fund (UNICEF), and International Institute for Educational Planning (IIEP), UNESCO.

Chapter 1

History of Women's Economic Empowerment

Introduction

Women's empowerment has main five components: (1) Women's sense of self-worth. (2) Women's right to have and to determine choices. (3) Women's right to have access to opportunities and resources. (4) Women's right to have the power to control their lives, both within and outside the home. (5) Women's ability to influence the direction of social change to create a more just social and economic order, nationally and internationally (UN, <http://www.un.org/popin/unfpa/taskforce/guide/iatfwemp.gdl.html>).

The last decades have seen growing increasing recognition of women's empowerment, and it has been receiving attention and being in focus by the policy and decision makers, governmental organizations, nongovernmental organizations, private sectors, and civil society.

Women's economic empowerment combines the concepts of empowerment and economic advancement. Economic empowerment concentrates on factors that help women succeed and advance in the marketplace, through increasing skills and access to productive resources, improving the enabling and institutional environments, and assisting women in their ability to make and act upon decisions to benefit from economic growth and development.

The economic empowerment is intertwined with social and political empowerment. Taking into account the underlying social and cultural factors that limit women's ability to interact with and benefit from markets; such as unpaid and inequitably distributed domestic and care work, limited mobility, and the prevalence of sexual and gender-based violence, is essential if initiatives are to address the full range of constraints to women's economic empowerment. (The Department of Foreign Affairs, Trade and Development- Canada, 2013).

The United Nations has organized many conferences and adopted plan of actions to promote the women empowerment and emphasize the full and equal participation

of women in civil, economic, political and social life at the national, regional and international levels, and eradication of all forms of discrimination on the grounds of sex are priority objectives of the international community (UNFPA, 2004), hence, most of the countries are part of universal conventions to assure the implementations of the plan of actions, at the same time many countries issued laws and included women empowerment in its social development plans.

This chapter presents the history of the women's economic empowerment in the world in general and produces a summary of the main international conventions, that Egypt commitments to them, and laws and strategies in Egypt in particular which support women's economic empowerment. It reviews the most relevant agreements, agreements and national strategies that focus on women's economic empowerment.

History of Women's Economic Empowerment in the World

The women empowerment has been an important issue for all countries around the world; the United Nations has organized four world conferences on women between 1975 and 1995.

In 1975, international women's year, the first world conference on women took place in Mexico City, the conference defined a World Plan of Action for the United Nations Decade for Women: Equality, Development, and Peace 1976–1985, this is considered as the first UN Decade for Women.

“Equality” included not only legal equality, the elimination of de jure discrimination, but also equality of rights, responsibilities, and opportunities for the participation of women in development and “development” meant total development, including development in the political, economic, social, culture and other dimensions of human life (UN, 1976).

The conference promulgated 30 principles on the empowerment of women, which all support the role of women beside men to achieve development and peace for the world; some of those principles are mainly to support the women economic empowerment (see Box 1.1).

The second world conference on women took place in Copenhagen in 1980 for the mid -decade of the United Nations Decade for Women, to review progress in implementing the goals of the first world conference, according to the conference report, the lessons learnt for the future from this review could be concluded in three main lessons: (1) It proves that any measures for women isolated from the major priorities, strategies and sectors of development cannot result in any substantial progress toward attaining the goals of the decade. (2) Legislative and development action, unless accompanied by positive and concerted action to change attitudes and prejudices, cannot be fully effective. (3) The mere provision of equal rights, development services, and opportunities will not, by themselves, help women to benefit from them without simultaneous special supportive measures, e.g. legal aid, earmarking of benefits, information and knowledge, institutional innovation (UN 1980).

Box 1.1: Declaration of Mexico on the Equality of Women and their Contribution to Development and Peace, 1975**“Principles relevant to women’s economic empowerment”**

- Equality between women and men means equality in their dignity and worth as human beings as well as equality in their rights, opportunities and responsibilities.
- It is the responsibility of the State to create the necessary facilities so that women may be integrated into society while their children receive adequate care.
- Women and men have equal rights and responsibilities in the family and in society. Equality between women and men should be guaranteed in the family, which is the basic unit of society and where human relations are nurtured. Men should participate more actively, creatively and responsibly in family life for its sound development in order to enable women to be more intensively involved in the activities of their communities and with a view to combining effectively home and work possibilities of both partners.
- The right of women to work, to receive equal pay for work of equal value, to be provided with equal conditions and opportunities for advancement in work, and all other women’s rights to full and satisfying economic activity are strongly reaffirmed. Review of these principles for their effective implementation is now urgently needed, considering the necessity of restructuring world economic relationships. This restructuring offers greater possibilities for women to be integrated into the stream of national economic, social, political and cultural life.
- The issue of inequality, as it affects the vast majority of the women of the world, is closely linked with the problem of under-development, which exists as a result not only of unsuitable internal structures but also of a profoundly unjust world economic system.
- The full and complete development of any country requires the maximum participation of women as well as of men in all fields: the under-utilization of the potential of approximately half of the world’s population is a serious obstacle to social and economic development.
- In order to integrate women into development, States should undertake the necessary changes in their economic and social policies because women have the right to participate and contribute to the total development effort.
- The present state of international economic relations poses serious obstacles to a more efficient utilization of all human and material potential for accelerated development and for the improvement of living standards in developing countries aimed at the elimination of hunger, child mortality, unemployment, illiteracy, ignorance and backwardness., which concern all of humanity and women in particular. It is therefore essential to establish

(continued)

Box 1.1 (continued)

and implement with urgency the New International Economic Order, of which the Charter of Economic Rights and Duties of States constitutes a basic element, founded on equity, sovereign equality, interdependence, common interest, co-operation among all States irrespective of their social and economic systems, on the principles of peaceful coexistence and on the promotion by the entire international community of economic and social progress of all countries, especially developing countries, and on the progress of States comprising the international community

- The principle of the full and permanent sovereignty of every State over its natural resources, wealth and all economic activities, and its inalienable right of nationalization as an expression of this sovereignty constitute fundamental prerequisites in the process of economic and social development.
- The attainment of economic and social goals, so basic to the realization of the rights of women, does not, however, of itself bring about the full integration of women in development on a basis of equality with men unless specific measures are undertaken for the elimination of all forms of discrimination against them. It is therefore important to formulate and implement models of development that will promote the participation and advancement, of women in all fields of work and provide them with equal educational opportunities and such services as would facilitate housework.
- It must be emphasized that, given the required economic, social and legal conditions as well as the appropriate attitudes conducive to the full and equal participation of women in society, efforts and measures aimed at a more intensified integration of women in development can be successfully implemented only if made an integral part of over-all social and economic growth. Full participation of women in the various economic, social, political and cultural sectors is an important indication of the dynamic progress of peoples and their development. Individual human rights can be realized only within the framework of total development.

Source: United Nations, “Report of the world conference of the international women’s year,” Mexico City, 19 June–2 July 1975. New York, 1976

In 1985, the third World Conference was conducted to review and appraise the achievements of the United Nations Decade for Women: Equality, Development, and Peace, it took place in Nairobi; the conference’s mandate was to establish concrete measures to overcome obstacles to achieving the Decade’s goals. Governments adopted the Nairobi Forward-Looking Strategies for the Advancement of Women, which outlined measures for achieving gender equality at the national level and for promoting women’s participation in peace and development efforts (UN 1986).

The fourth world conference on women took place in Beijing in 1995, considered as a turning point for the global agenda for women's. The Beijing Declaration and the Platform for Action are considered as the key global policy document on gender equality; it determined 12 critical areas of concern regarding women empowerment:

- (1) Women and poverty
- (2) Education and training of women
- (3) Women and health
- (4) Violence against women
- (5) Women and armed conflict
- (6) Women and the economy
- (7) Women in power and decision-making
- (8) Institutional mechanism for the advancement of women
- (9) Human rights of women
- (10) Women and the media
- (11) Women and the environment
- (12) The girl-child

For each critical area of concern, the problem was diagnosed, and strategic objectives were proposed with concrete actions to be taken by various actors to achieve those objectives. One of the critical areas of concern was “Women and the economy,” six strategic objectives were proposed with specific actions to be taken (UNWOMEN 2014) (See Box 1.2).

**Box 1.2: Beijing Declaration and Platform for Action
“Strategic objectives for Women and the Economy”**

- Promote women's economic rights and independence, including access to employment, appropriate working conditions and control over economic resources.
- Facilitate women's equal access to resources, employment, markets and trade
- Provide business services, training and access to markets, information and technology, particularly to low-income women
- Strengthen women's economic capacity and commercial networks
- Eliminate occupational segregation and all forms of employment discrimination
- Promote harmonization of work and family responsibilities for women and men

Source: UNWOMEN, “Beijing Declaration and Platform for Action-Beijing + 5 Political Declaration and Outcome”, 2014

The World Conference on Women in Beijing was followed by a series of 5-year reviews which all conducted as a follow-up and a 5-year review and appraisal of the implementation of the Beijing Platform for Action, and to agree on future actions and initiatives.

In 2000 in New York, the UN General Assembly conducted the 23rd special session, "Women 2000: Gender Equality, Development, and Peace for the Twenty-First Century", as a 5-year review and appraisal of the implementation of the Beijing Platform for Action, and to consider future actions and initiatives, it resulted in a political declaration and further actions and initiatives to implement the Beijing commitments.

The resolution adopted by the General Assembly included a part on the "Achievements in and obstacles to the implementation of the 12 critical areas of concern of the Beijing Platform for Action," for women and economy. It stated that the achievements were: the increasing in participation of women in the labour market and subsequent gain in economic autonomy, increasing the awareness of the need to reconcile employment and family responsibilities and of the positive effect of such measures as maternity and paternity leave and also parental leave, and child and family care services and benefits. Some of the obstacles were: The importance of a gender perspective in the development of macroeconomic policy is still not widely recognized, gender discrimination in hiring and promotion and related to pregnancy, including through pregnancy testing, and sexual harassment in the workplace persist and In some countries, women's full and equal rights to own land and other property, including through the right to inheritance, is not recognized yet in national legislation (UNWOMEN, <http://www.un.org/womenwatch/daw/followup/beijing+5.htm>).

In September 2000 at the Millennium Summit, the largest gathering of world leaders adopted the UN Millennium Declaration which aimed to reduce extreme poverty and set out a series of time-bound targets, with a deadline of 2015, this summit have become known as the Millennium Development Goals (Mellinum project, <http://www.unmillenniumproject.org/goals/>).

The MDGs are 8 goals with 18 targets and 48 technical indicators to measure progress towards the Millennium Development Goals. The third goal was related to women empowerment; "Promote Gender Equality and Empower Women" (see Box 1.3).

In 2005, a 10-year review and appraisal of the implementation of the Beijing Declaration and Platform for Action and the outcome of the 23rd special session of the General Assembly held during the 49th session of the CSW The Commission considered two themes: (1) "Review of the implementation of the Beijing Platform for Action and the outcome documents of the 23rd special session of the General Assembly"; and (2) "Current challenges and forward-looking strategies for the advancement and empowerment of women and girls".

The review and appraisal focused on implementation at national level and identified achievements, gaps, and challenges and provided an indication of areas where actions and initiatives, within the framework of the Platform for Action and the outcome of the special session (Beijing + 5), are most urgent to further implementation (UNWOMEN, <http://www.un.org/womenwatch/daw/Review/english/49sess.htm>).

Box 1.3: Millennium Development Goals**Goal (1)** Eradicate extreme poverty and hunger**Goal (2)** Achieve universal primary education**Goal (3)** Promote gender equality and empower women**Goal (4)** Reduce child mortality**Goal (5)** Improve maternal health**Goal (6)** Combat HIV/AIDS, malaria and other diseases**Goal (7)** Ensure environmental sustainability**Goal (8)** Develop a global partnership for development**Goal 3. Promote Gender Equality and Empower Women**

Target: Eliminate gender disparity in primary and secondary education, preferably by 2005, and to all levels of education no later than 2015

Indicators:

- Ratio of girls to boys in primary, secondary and tertiary education
- Ratio of literate females to males of 15-to- 24-year-olds
- Share of women in wage employment in the non-agricultural sector
- Proportion of seats held by women in national parliament

Source: UN General Assembly, “Road map towards the implementation of the United Nations Millennium Declaration” Report of the Secretary-General, [2001](#)

In 2010 and during the 54th session of the Commission on the Status of Women, Economic and Social Council, UN, a 15-year review and appraisal of the Beijing Platform for Action was conducted, and the Member States adopted a declaration on the occasion of the fifteenth anniversary of the fourth World Conference on Women, the declaration welcomed the progress made towards achieving gender equality and the empowerment of women, pledge to undertake further action to ensure their full and accelerated implementation and emphasized that the full and effective implementation of the Beijing Declaration and Platform for Action is essential to achieve the internationally agreed development goals (UN [2010](#)).

During the same year, in July 2010, the United Nations General Assembly created the UN Women as an entity for Gender Equality and the Empowerment of Women. The main roles of the UN Women are:

- To support inter-governmental bodies, such as the Commission on the Status of Women, in their formulation of policies, global standards, and norms.
- To help the Member States to implement these standards, standing ready to provide suitable technical and financial support to those countries that request it, and to forge effective partnerships with civil society.

- To lead and coordinate the UN system's work on gender equality as well as promote accountability, including through regular monitoring of system-wide progress (UNWOMEN, <http://www.unwomen.org/en/about-us/about-un-women>).

In 2015, the 20th anniversary of the Fourth World Conference on Women and Adoption of the Beijing Declaration and Platform for Action, the UN Women and the People's Republic of China co-hosted a "Global Leaders' Meeting on Gender Equality and Women's Empowerment: A Commitment to Action", which was held in conjunction with the United Nations Summit for the adoption of the post-2015 development agenda. Member States' Heads of State or Government were invited to make concrete commitments to accelerate implementation of the Beijing Declaration and Platform for Action and achieve gender equality and the empowerment of women no later than 2030, (UNWOMEN 2015).

In September 2015, the UN general assembly adopted the post-2015 development agenda entitled "Transforming our world: the 2030 Agenda for Sustainable Development, the sustainable development goals are 17 goals to be achieved by 2030. The 5th goal was "Achieve gender equality and empower all women and girls," and it had two sub-goals that concentrated on the economic women empowerment as following:

5.4: Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate 5.5: Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life (UN 2015) (See Box 1.4).

In addition to the UN role in promoting women's economic empowerment, the international labor organization has played a significant role in promoting gender equality since its creation in 1919, it adopted multiple conventions that concerning women's economic empowerment; for example, Conventions on fundamental principles and rights at work, conventions on maternity protection work and family, conventions on employment promotion, working conditions, and conventions on working conditions (See Box 1.5).

History of Women's Economic Empowerment in Egypt

In addition to being committed to many global and international conventions that promoting women's economic empowerment, Egypt has taken many steps to prompt women's economic empowerment, some of them were laws and others national strategies.

Egypt has supported the participation of women in social and economic life and ensured that in the documents of national policies and strategy.

In 1973, the first national population policy 1973–1982 was issued by Supreme Council for Family Planning and Population with its set of goals, including the

Box 1.4: Sustainable Development Goals

<u>Goal 1</u> : End poverty in all its forms everywhere	<u>Goal 9</u> : Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
<u>Goal 2</u> : End hunger, achieve food security and improved nutrition and promote sustainable agriculture	<u>Goal 10</u> : Reduce inequality within and among countries
<u>Goal 3</u> : Ensure healthy lives and promote well-being for all at all ages	<u>Goal 11</u> : Make cities and human settlements inclusive, safe, resilient and sustainable
<u>Goal 4</u> : Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	<u>Goal 12</u> : Ensure sustainable consumption and production patterns
<u>Goal 5</u> : Achieve gender equality and empower all women and girls	<u>Goal 13</u> : Take urgent action to combat climate change and its impacts
<u>Goal 6</u> : Ensure availability and sustainable management of water and sanitation for all	<u>Goal 14</u> : Conserve and sustainably use the oceans, seas and marine resources for sustainable development
<u>Goal 7</u> : Ensure access to affordable, reliable, sustainable and modern energy for all	<u>Goal 15</u> : Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
<u>Goal 8</u> : Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	<u>Goal 16</u> : Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
<u>Goal 17</u> : Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	
Source: UN, General Assembly, Resolution adopted by the General Assembly on 25 September 2015	

reduction of population growth, and explained that one of the key factors affecting the speed up of the reduction of the population growth, is the employment of women since the employment of women leads to:

- The acquisition of a new women's position in society
- Higher family income
- Achieve security for women
- Low dependency ratio
- Changing the economic pattern of the family and consequently, change the psychology of the family toward excessive reproduction (Supreme Council for Family Planning and Population 1973).

Box 1.5: Examples of Key Conventions on Women Economic Empowerment Adopted by the ILO

Fundamental principles and rights at work

- Forced Labor Convention, 1930, No. 29, and Recommendation No. 35
- Freedom of Association and Protection of the Right to Organize Convention, 1948, No. 87
- Right to Organize and Collective Bargaining Convention, 1949, No. 98
- Equal Remuneration Convention, 1951, No. 100, and Recommendation No. 90
- Abolition of Forced Labor Convention, 1957, No. 105
- Discrimination (Employment & Occupation) Convention, 1958, No. 111, and Recommendation No. 111
- Minimum Age Convention, 1973, No. 138, and recommendation No. 146
- Worst Forms of Child Labor Convention, 1999, No. 182, and Recommendation No. 190

Maternity protection work and family

- Workers with Family Responsibilities Convention, 1981, No. 156, and Recommendation No. 165.
- Maternity Protection Convention, 2000, No. 183, and Recommendation No. 191

Employment promotion and working conditions

- Employment Policy Convention, 1964, No. 122, and Recommendation No. 122
- Human Resources Development Convention, 1975, No. 142, and revised by Recommendation No. 195, 2004
- Termination of Employment Convention, 1982, No. 158, and Recommendation No. 166
- Employment Policy (Supplementary Provision) Recommendation, 1984, No. 169
- Job Creation in Small and Medium-Sized Enterprises Recommendation, 1998, No. 189
- Employment Relationship Recommendation, 2006, No. 198

Working conditions

- Night Work (Women) Convention (Revised), 1948, No 89, Protocol of 1990 to the Night Work (Women) Convention No. 89
- Night Work Convention, 1990, No. 171, and Recommendation No. 178
- Part-time Work Convention, 1994, No. 175, and Recommendation No. 182
- Home Work Convention, 1996, No. 177 and Recommendation No. 184

Source: International Labor Organization, “Gender Equality and Decent Work-Selected ILO Conventions and Recommendations that Promote Gender Equality as of 2012”, [2012](#)

In 1986, the National Population Council issued the second national population policy, in the policy document it was stated that the most important methods of achieving the policy goals, specifically the goal of upgrading the demographic characteristics, is to promote women's welfare by expanding the employment of women and increase the number of productive families (National Population Council 1986).

In 2000, National Council for Women was established as an important step to support Egyptian women and to boost its position in the community.

The National Council for women vision is to improve the human and socio-economic conditions of Egyptian women and to increase the ratio of their participation in the development of their local communities and hence the development of

society as a whole and the mission is: to have an effective partnership and role in formulating policies and programs related to women's advancement and the sustainability of their development, as well as defining their active roles which support their participation in bringing about the positive transformation of their society at all levels (UN, <http://www1.uneca.org/ngm/NCWIntroductionVisionMission.aspx>).

The National population plan 2007–2017 developed by the National Population Council to reinforce the country efforts in solving the overpopulation problem by adopting some strategies, one of them was a strategy to support the link between population trends and overall development, to reinforce the social and economic development of women (The National Population Council 2007).

In 2015, “Sustainable Development Strategy: The Ministry of Planning developed Egypt Vision 2030”, Follow- up and Administrative Reform. It has three strategic dimensions with some pillars for each dimension; economic dimension, social dimension and environmental dimension, one of the key performance indicators for economic development until 2030 was to raise the female labor force participation from 22.8% to 25% by 2020 and 35% by 2030 (The Ministry of Planning, Follow-up and Administrative Reform 2015) (See Box 1.6).

Box 1.6: The Sustainable Development Strategy (SDS): Egypt Vision 2030

By 2030, the new Egypt will achieve a competitive, balanced, diversified and knowledge based economy, characterized by justice, social integration and participation, with a balanced and diversified ecosystem, benefiting from its strategic location and human capital to achieve staineable development for a better life to all Egyptians.

Dimensions and Pillars of Sustainable Development strategy:

Social dimension: Social justice – Health – Education and training – Culture.

Environmental dimension: Environment – Urban development

Economic development: Economic development – Energy – Knowledge, innovation and scientific research – Transparency and efficient government institutions

Key Performance Indicators for the Economic Dimension Relevant to Women:

Indicator	Current value	2020 target	2030 target
Female labor force participation (%)	22.8	25	35

Source: Ministry of Planning, Follow- up and Administrative Reform, “Sustainable Development Strategy: Egypt Vision 2030”, 2015

In accordance with the “Sustainable Development Strategy: Egypt Vision 2030”, the National Council for women is currently preparing new strategy entitled, “Egyptian women’s empowerment strategy 2016–2030: Towards a homeland free of discrimination and inequality” in order to promote women economic, social and political empowerment at both levels; central and decentralized.

Conclusion

The women’s economic empowerment has been in focus of national and international development’s agenda.

This chapter presents the history of the women’s economic empowerment in the world in general and produces a summary of the main international conventions, that Egypt commitments to them, and laws and strategies in Egypt in particular which support women’s economic empowerment. It reviews the most important conventions, agreements and national strategies that focus on women’s economic empowerment.

The United Nations conducted four main international conferences on women empowerment since during the period 1975–1995. Then the UN conducted a 5-year, 10-year and 15-year, and 20-year review and appraisal of the implementation of the Beijing Platform for Action. In addition to the world summit in 2000 and the post-2015 development agenda, both included goals that support and promote women’s economic empowerment.

The United Nations General Assembly created the UN Women as an entity for Gender Equality and the Empowerment of Women to support inter-governmental bodies, such as the Commission on the Status of Women, in their formulation of policies, global standards and norms, to help Member States to implement these standards, and to coordinate the UN system’s work on gender equality as well as promote accountability, including through regular monitoring of system-wide progress.

Egypt as a member of the UN has signed many conventions on women’s economic empowerment, in addition to a national strategy that promotes women’s economic empowerment since 1973, the National Population Policy 1973–1982, which stated the importance of women’s economic empowerment.

Since 1973 till now, many national strategic documents have been issued to promote and support Women’s economic empowerment in Egypt. The Ministry of Planning issued one of them, Follow-up and Administrative Reform, “Sustainable Development Strategy: Egypt Vision 2030.”

Currently, In accordance with the “Sustainable Development Strategy: Egypt Vision 2030”, the National Council for women is preparing new strategy entitled, “Egyptian women’s empowerment strategy 2016–2030: Towards a homeland free of discrimination and inequality” in order to promote women economic, social and political empowerment at both levels; central and decentralized.

In 2000, National Council for Women was established to improve the human and socio-economic conditions of Egyptian women and to increase the ratio of their participation in the development of their local communities and hence the development of society as a whole and the mission is: to have an effective partnership and role in formulating policies and programs related to women's advancement and the sustainability of their development, as well as defining their active roles which support their participation in bringing about the positive transformation of their society at all levels.

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Chapter 2

Demographic Profile of Egypt

Introduction

Demographic profile plays a significant role in all plans and strategies which are produced to promote women's economic empowerment; it is very important for the decision and policy makers to know population distribution by age and sex, as the economic empowerment is intertwined with the demographic and social profile.

This Chapter aims at presenting a descriptive analysis of the demographic situation in Egypt including males and females during the last three decades; it provides background on the trends of the most important female's characteristics during the last decades in comparison to males. It sheds light on the trends, during the last decades, of population size, growth rates, change in the population size by sex, age and sex composition, population distribution by place of residence and sex, the demographic transition in Egypt, female fertility, mortality and life expectancy by sex.

Population Size

The population of Egypt accounts for almost 8% of the population in Africa and about 22% of the Arab world (PRB 2016). The Egyptian population size almost doubled (increased by about 1.9 times during the last three decades), between 1986 and 2016, from about 48 million to about 91 million in 2016. Female population increased from about 24 million in 1986 to about 45 million in 2016, represented about 49% of total population, and male population increased from about 25 million in 1986 to about 46 million in 2016 (CAPMAS 2016) (Table 2.1) and (Fig. 2.1).

Table 2.1 Egypt population distribution by sex (1986–2016)

Year	Total population (In thousands)		
	Males	Females	Total
1986 ^a	24,709	23,545	48,254
1996 ^a	30,352	28,961	59,313
2006 ^a	37,219	35,579	72,798
2016 ^b	46,414	44,609	91,023

Source: Central Agency for Public Mobilization and Statistics (2017)

^aDecennial Census Population and Housing Counts

^bPopulation Estimates in Midyear

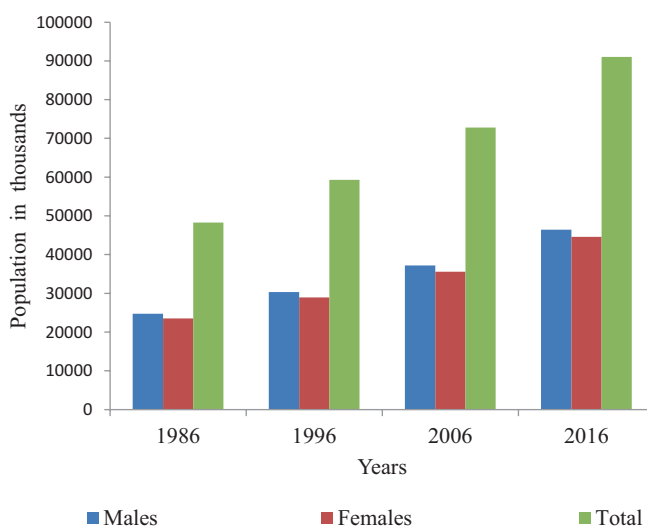


Fig. 2.1 Egypt population distribution by sex (1986–2016). (Source: Central Agency for Public Mobilization and Statistics 2017)

Population Distribution by Sex and Place of Residence

Egypt consists of 27 governorates, and these governorates are grouped into four main regions: Urban governorates, Lower Egypt governorates, Upper Egypt governorates, and Frontiers.

The population distribution by sex and place of residence did not change for males and females during the last three decades, between 1986 and 2016. In 1986, the majority of males were in Lower Egypt region with more than 43% of males in Egypt, and this was the case also in 2016, about 43% of males were in Lower Egypt. In 1986, the majority of females were in Lower Egypt, about 43% of females in Egypt, and the same percentage in 2016. Namely, Gharbia governorate was the most populated governorate in that region for both males and females in 1986, and

Table 2.2 Egypt population distribution by sex and place of residence in 1986 and 2016

Place of residence	Population size (in Thousands)					
	1986 ^{a(1)}			2016 ^{b(2)}		
	Males	Females	Total	Males	Females	Total
Cairo	3103	2950	6053	4804	4707	9511
Alexandria	1497	1420	2917	2512	2428	4939
Port-Said	206	194	400	347	336	683
Suez	170	157	327	326	317	643
Urban Governorates	4976	4721	9697	7989	7788	15,776
Damietta	279	266	544	699	673	1373
Dakahlia	1652	1605	3257	3108	3021	6129
Sharkia	380	362	741	3436	3274	6710
Kalyoubia	904	896	1800	2698	2566	5264
Kafr-el-Sheikh	1453	1418	2871	1661	1623	3284
Gharbia	1785	1716	3500	2481	2416	4897
Menoufia	1755	1666	3420	2091	1985	4077
Behera	1144	1083	2227	3085	2943	6028
Ismailia	1302	1212	2514	620	603	1224
Lower Egypt	10,653	10,223	20,876	19,880	19,105	38,985
Giza	1906	1794	3700	4025	3819	7844
Beni-Suef	802	742	1544	1519	1465	2984
Fayoum	734	709	1443	1707	1605	3313
Menia	1351	1297	2648	2742	2637	5380
Asyout	1148	1075	2223	2253	2164	4417
Suhag	1250	1205	2455	2430	2366	4796
Qena	1139	1114	2252	1593	1575	3168
Aswan	402	400	801	747	736	1483
Luxor	–	–	–	604	583	1186
Upper Egypt	8730	8337	17,067	17,621	16,951	34,572
Red Sea	50	41	90	213	145	358
ElWadi ElGidid	58	56	114	119	114	233
Matrouh	83	77	161	248	230	478
North Sinai	88	83	172	232	218	450
South Sinai	18	11	29	111	60	171
Frontiers	297	268	565	924	766	1690
Egypt	24,655	23,550	48,205	46,414	44,609	91,023

Source: (1) Central Agency for Public Mobilization and Statistics (2017)

(2) Central Agency for Public Mobilization and Statistics (1988)

^aDecennial census population and housing counts

^bPopulation estimates in midyear

Sharkia governorate was the most populated governorate in that region for both males and females in 2016. On the other hand, Frontiers region had the lowest percentage of males and females in Egypt, about 1.2% in 1986 and about 2% in 2016. Namely, South Sinai had the least percentage of males and females in Egypt in 1986 and 2016 (Table 2.2), (Figs. 2.2 and 2.3).

Fig. 2.2 Egypt population distribution by sex and place of residence in 1986 (Source: Central Agency for Public Mobilization and Statistics 1988)

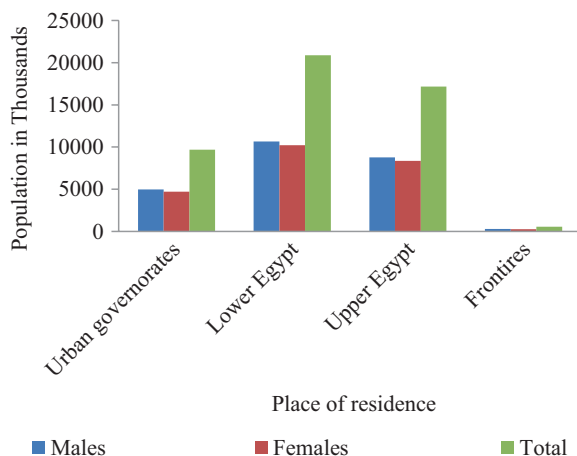
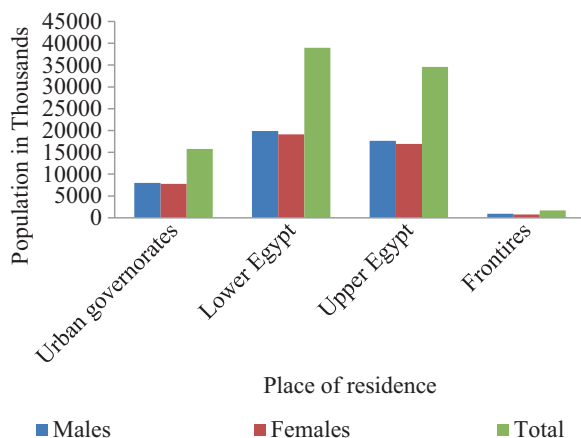


Fig. 2.3 Egypt population distribution by sex and place of residence in 2016. (Source: Central Agency for Public Mobilization and Statistics 2017)



Age and Sex Composition in Egypt (1986–2016)

Egypt population age and sex composition changed during the last three decades, especially for the population less than 15 years, as a result of the reduction in the total fertility during the same period from about 5 to 3.5 children per woman.

The size of the population less than 15 years was about 19 million in 1986, represents about 40% of total population and this was the case for both males and females under 15 years. Males and females under 15 years represented about 41% of total males and about 40% of total females respectively. In 2016 the estimation of the population less than 15 years was about 30 million represented about 32% of total population, and for males and females under 15 years, these represented about 33% and 32% of total males and total females respectively. The gradual and con-

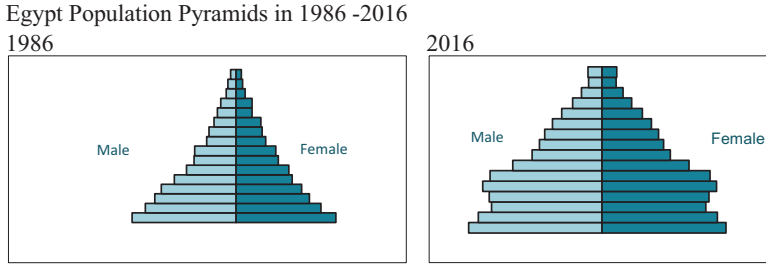


Fig. 2.4 Egypt population pyramids in 1986–2016 (Source: Author’s calculations, using data from Central Agency for Public Mobilization and Statistics, “Statistical Year Book,” (2004) – Central Agency for Public Mobilization and Statistics, “Egypt in Figures,” (2017))

tinuous decline in this population group is justified by the significant success of the programs and plans in the field of family planning and other population programs of development.

Regarding the age group (15–59) years, it is noticeable that there was a significant increase between 1986 and 2016, from about 26 million, represented about 54% of total population in 1986 to about 56 million represented about 61% of total population in 2016. Males and females in the age group (15–59) also increased between 1986 and 2016, a number of males in this age group, increased from about 13 million represented almost 54% of males in 1986 to 28 million represented about 61% of total males in 2016. Females in the same age group, (15–59) years, increased from about 13 million which represented about 55% of total females in 1986 to about 28 million represented about 61% of total females in 2016. This increasing was the result of the decline in fertility, and those births in 1986 are in the age group (30–34) years in 2016.

Regarding the age 60+, it seems to be stable percentages during the same period, and percentage of population aged 60 and above was about 6% of total population in 1986 and 2016. Also, this was the case for males and females in 1986 and 2016 (Fig. 2.4).

Demographic Transition in Egypt

All societies pass through cycles divided into four stages, this called the demographic transition, and each stage has its characteristics.

The first stage: low rate of population growth, high birth rate, and high death rate. Second stage: relative stability of the birth rate at its high level during the first stage and gradual decline of the death rate. The third stage: decline in the birth rate and gradually the death rate remarkably declines to its lowest level. The fourth stage: stable and balanced population growth, since successive population plans and programs succeed in achieving their objectives and reach their goals of reducing the birth rate to its lowest possible level. Consequently, the difference between the birth

Table 2.3 Birth, death, sex ratio and natural increase rates (1993–2015)

Years	Birth rates	Sex ratio (M/F)	Death rates			Natural increase rate
			Males	Females	Total	
1993	28.1	112	6.9	6.5	6.7	21.4
1994	27.7	106	7	6.3	6.6	21.1
1995	27.9	109	7.1	6.3	6.7	21.2
1996	28.3	106	6.8	6.1	6.5	21.8
1997	27.5	106	6.8	6.1	6.5	21
1998	27.5	106	6.8	6.2	6.5	21
1999	27	106	6.8	6	6.4	20.6
2000	27.4	107	6.8	5.9	6.3	21.1
2001	26.7	106	6.7	5.7	6.2	20.5
2002	26.5	105	6.7	6	6.4	20.1
2003	26.2	103	6.9	6.1	6.5	19.7
2004	25.7	102	6.8	5.9	6.4	19.3
2005	25.5	104	6.8	5.9	6.4	19.1
2006	25.7	105	6.8	5.7	6.3	19.4
2007	26.5	105	6.6	5.6	6.1	20.4
2008	27.3	106	6.7	5.6	6.1	21.2
2009	28.8	107	6.6	5.7	6.2	22.6
2010	28.7	105	6.6	5.7	6.1	22.6
2011	30.3	105	6.7	5.5	6.1	24.2
2012	31.9	104	7	5.8	6.4	25.5
2013	31	104	6.6	5.5	6	25
2014	31.2	105	6.6	5.6	6.1	25.2
2015	30.2	10.5	6.9	6	6.5	23.7

Source: Central Agency for Public Mobilization and Statistics (2017)

and death rates becomes negligible and does not result in a significant population growth (Nassar et al. 2006).

It is noted that currently, Egypt is in the third stage, where the first stage took place during the period from 1879 to 1949, the birth rate was too high about 40 to 44 per thousand, and a high death rate between 25 and 30 per thousand, and this was reflected in a high growth rate. The second stage took place from the year 1950 to 1969, which was characterized by relative stability of the birth rate at the high level but the death rate began to drop significantly to a level ranging between 15 and 19 per thousand (Makhlouf et al. 2003).

The third stage started from 1970 where the birth rate began to decline for the first time in Egypt. Currently, Egypt is in the third stage; the crude birth rate¹ declined during the past three decades from about 38.8 per thousand in 1986 to 30.2 per thousand in 2015 (Table 2.3) and (Fig. 2.5).

¹ Crude birth rate is defined as the number of live births occurring among the population of a given geographical area during a given year, per 1000 mid-year total population of the given geographical area during the same year.

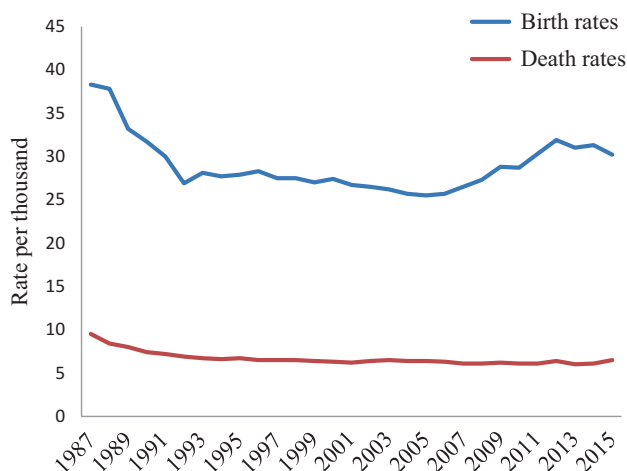


Fig. 2.5 Birth, death rates in Egypt (1987–2015) (Source: Central Agency for Public Mobilization and Statistics 2016)

Crude death rate² is also declined in Egypt during the last three decades from 9.5 per thousand in 1987 to 6.5 per thousand in 2015.

Death rates for males fluctuated between 1993 and 2015 (6.6 per thousand – 7.1 per thousand), the female death rate also fluctuated during the same period from 5.5 per thousand to 6 per thousand (Table 2.3) and (Fig. 2.5).

The sex ratio was over 105 during the period 1993 to 2001, starting from 2002 the sex ratio was 105, and then between 2002 and 2015, it fluctuated between 102 and 107 (Table 2.3).

Female Fertility in Egypt

Fertility is one of the most important demographic variables which contribute to the determination of the rate of population growth. During the past three decades, fertility in Egypt decreased from about 5 children per woman to about 3.5 children per woman.

It is noted that there are two main phases in the fertility pattern in Egypt; in the first phase, fertility declined significantly during the period between 1980 and the mid of 1990 from 5.3 children per woman (1979–1980) to 3.6 children per woman (1993–1995); and the second phase is the period between 1995 and 2014, the trend in fertility decline slowed down, from 3.6 children per woman (1993–1995) to 3 children per woman (2005–2008), then it raised again to 3.5 children per woman (2011–2014) (Table 2.4) and Fig. 2.6.

²Crude death rate is defined as the number of deaths occurring among the population of a given geographical area during a given year, per 1000 mid-year total population of the given geographical area during the same year.

Table 2.4 Age specific fertility rates and total fertility rates in Egypt (1986–2014)

Survey	EDHS 1988	EDHS 1992	EDHS 1995	EDHS 2000	EDHS 2005	EDHS 2008	EDHS 2014
Reference period	1986–1988	1990–1992	1993–1995	1997–2000	2002–2005	2005–2008	2011–2014
<i>Age</i>							
15-	72	63	61	51	48	50	56
20-	220	208	200	196	175	169	213
25-	243	222	210	208	194	185	200
30-	182	155	140	147	125	122	134
35-	118	89	81	75	63	59	69
40-	41	43	27	24	19	17	17
45-	6	6	7	4	2	2	4
TFR 15-49	4.4	3.9	3.6	3.5	3.1	3	3.5

Source: Ministry of Health and Population [Egypt], El-Zanaty and Associates [Egypt], and ICF International (2015)

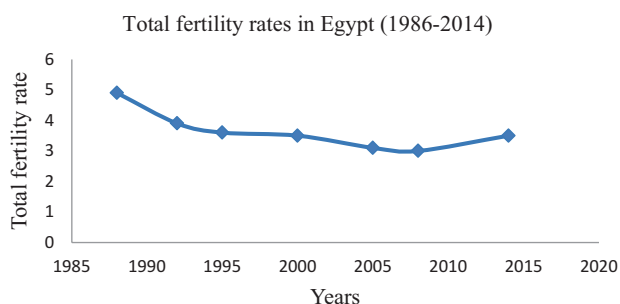


Fig. 2.6 Age specific fertility rates and total fertility rates in Egypt (1986–2014) (Source: Ministry of Health and Population [Egypt], El-Zanaty and Associates [Egypt], and ICF International (2015))

Fertility declined in most age categories of reproductive women (15–49). Analyzing age-specific fertility rates during the period from 1986 to 2008 shows that the age group 25–29 had the highest age-specific fertility rates and almost responsible for from 27.6% to 31% of the total fertility rates during this period, during the period 2011 to 2014 the age group 20–24 had the highest age-specific fertility rates and was almost responsible for 31% of the total fertility rate during this period (Table 2.4) and Figs. 2.6 and 2.7.

Fertility levels differed significantly according to the place of residence; in rural areas the fertility rates declined from about more than 5.4 births per woman in 1980s to 3.8 births per woman in 2014, but in the urban areas fertility rates declined from more than 3.5 births per woman to 2.9 births per woman during the same period. According to the EDHS 2014 results, fertility in rural areas is around 31 percent higher than the rate in urban areas.

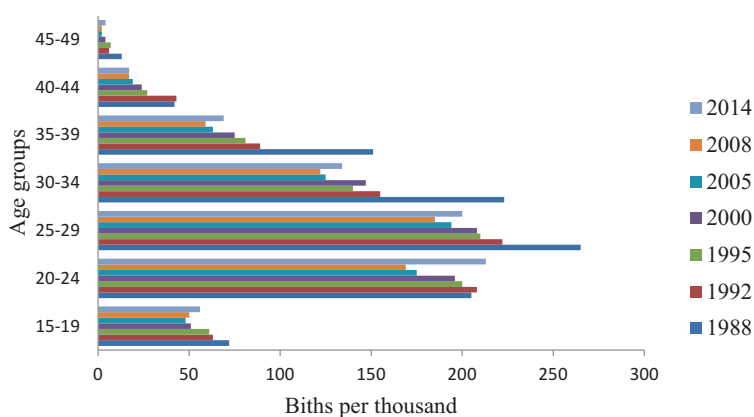


Fig. 2.7 Age specific fertility rates in Egypt (1986–2014) (Source: Ministry of Health and Population [Egypt], El-Zanaty and Associates [Egypt], and ICF International (2015))

Table 2.5 Trends in fertility in Egypt by place of residence (1986–2014)

Place of residence	EDHS	EDHS	EDHS	EDHS	EDHS	EDHS	EDHS
	1986–1988	1990–1992	1993–1995	1997–2000	2002–2005	2005–2008	2011–2014
Urban	3.5	2.9	3	3.1	2.7	2.7	2.9
Rural	5.4	4.9	4.2	3.9	3.4	3.2	3.8
Urban governorates	3	2.7	2.8	2.9	2.5	2.6	2.5
Lower Egypt	4.5	3.7	3.2	3.2	2.9	2.9	3.4
Upper Egypt	5.4	5.2	4.7	4.2	3.7	3.4	3.8
Frontier governorates ^a	–	–	4.1	3.9	3.3	3.2	3.9

Source: Ministry of Health and Population [Egypt], El-Zanaty and Associates [Egypt], and ICF International (2015)

^aDoes not include North and South Sinai

In urban governorates, fertility declined from 3 births per woman to 2.5 births per woman. In Lower Egypt, fertility declined from 4.5 births per woman to 3.4 births per woman. In Upper Egypt, fertility declined from 5.4 births per woman to 3.8 births per woman, which means that Upper Egypt had the highest level of fertility in comparison to the other regions and urban governorates had the lowest one (Table 2.5).

Fertility levels differ according to the level of education; demographic surveys showed that TFR decreased with the increase of the educational level. Even a few years in school are sufficient to reduce, for instance in 1988, women with no education had an average of 5.4 children, whereas women with an incomplete primary education had 4.7 children. The differentials have been diminishing over the last three decades; the difference between the lowest and the highest category was 2.2 children

Table 2.6 Total fertility rates by level of education in Egypt (1988–2014)

Survey							
Education Status	EDHS 1988 ⁽¹⁾	EDHS 1992 ⁽²⁾	EDHS 1995 ⁽³⁾	EDHS 2000 ⁽⁴⁾	EDHS 2005 ⁽⁵⁾	EDHS 2008 ⁽⁶⁾	EDHS 2014 ⁽⁷⁾
No Education	5.38	5.03	4.57	4.09	3.8	3.3	3.8
Some Primary	4.76	3.98	3.72	3.78	3.4	3.1	3.5
Primary through Secondary	3.61	3.03	3.07	3.36	2.9	2.9	3.5
Completed Secondary	3.15	2.91	3	3.22	3	2.7	3.5

Sources: (1) Sayed et al. (1989)

(2) El-Zanaty et al. (1993)

(3) El-Zanaty et al. (1996)

(4) El-Zanaty and Way (2001)

(5) El-Zanaty and Way (2006)

(6) El-Zanaty et al. (2009)

(7) Ministry of Health and Population [Egypt], El-Zanaty and Associates [Egypt], and ICF International (2015)

in 1988 and only 0.3 in 2014. This is mainly due to the rapid decline in the fertility of women with no education (from 5.4 children in 1988 to 3.8 children in 2014) and with uncompleted primary education (from 4.8 in 1988 to 3.5 in 2014) (Table 2.6).

Mortality and Life Expectancy at Birth in Egypt

Mortality is a basic component of the population growth; levels of mortality in Egypt during the last three decades in terms of life expectancy at birth show that life expectancy at birth rose due to a number of factors, including reductions in infant mortality and child mortality. For males, the life expectancy at birth increased 60.5 years in 1986 to 73.3 years in 2016, and for females, it increased from 63.5 years to 70.5 years during the same period Table 2.7 and Fig. 2.8.

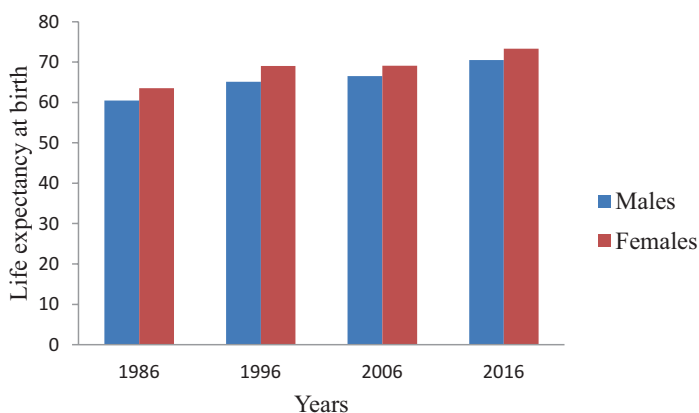
It is important to correlate the improvement in life expectancy at birth for both sexes to the improvement in the health and medical sector; the strong evidence is the significant decline in the infant mortality rates IMR during the same period. Demographic and health surveys showed that IMR for males has declined from 84.4 per 1000 live births in the 1980s to 25 per 1000 live births in 2000s, for female IMR declined from 75.3 per 1000 live births to 27 per 1000 live births during the same period.

Child mortality rate for males declined from 24.6 per 1000 live births in the 1980s to 5 per 1000 live births in 2000s. Female Child mortality rate declined from

Table 2.7 Life expectancy at birth by sex in Egypt (1986–2016)

Years	Life expectancy at birth	
	Males	Females
1986 ^a	60.5	63.5
1996 ^a	65.1	69
2006	66.5	69.1
2007	66.9	69.6
2008	67.4	70
2009	67.8	70.5
2010	68.2	70.9
2011	68.6	71.4
2012	69	71.8
2013	69.4	72.2
2014	69.7	72.5
2015	70.1	72.9
2016	73.3	70.5

Source: ^aCentral Agency for Public Mobilization and Statistics (2009). Central Agency for Public Mobilization and Statistics (2017)

**Fig. 2.8** Life expectancy at birth by sex in Egypt (1986–2016) (Source: Central Agency for Public Mobilization and Statistics (2009). Central Agency for Public Mobilization and Statistics (2017))

36.1 per 1000 live births to 4 per 1000 live births during the same period (Table 2.8) and Fig. 2.9.

The level of education for mothers plays a significant role in the value of infant and child mortality rates. Demographic and health surveys showed that IMR of children for mothers with no education declined from 97.8 per 1000 live births in

Table 2.8 Infant and child mortality rates by sex in Egypt (1980s–2000s)

Survey	^a Infant mortality rate IMR 1q0		^a Child mortality rate 4q1	
	Males	Females	Males	Females
EDHS 1992 ⁽¹⁾	84.4	75.3	24.6	36.1
EDHS 1995 ⁽²⁾	72.5	73.3	21.7	28.1
EDHS 2000 ⁽³⁾	55	54.5	14.6	16.1
EDHS 2005 ⁽⁴⁾	43.3	37.1	9.6	10.4
EDHS 2008 ⁽⁵⁾	33.5	23.4	5.1	4.7
EDHS 2014 ⁽⁶⁾	25	27	5	4

^aRates for the 10-year period preceding the survey

(1) El-Zanaty et al. (1993)

(2) El-Zanaty et al. (1996)

(3) El-Zanaty and (2001)

(4) El-Zanaty and Way (2006)

(5) El-Zanaty et al. (2009)

(6) Ministry of Health and Population [Egypt], El-Zanaty and Associates [Egypt], and ICF International (2015)

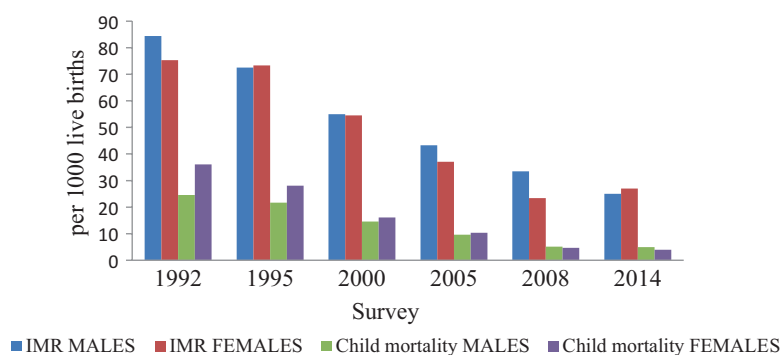


Fig. 2.9 Infant and child mortality rates by sex in Egypt (1980s–2000s). (Rates for the 10-year period preceding the survey). (Sources: (1) El-Zanaty et al. (1993). (2) El-Zanaty et al. (1996). (3) El-Zanaty and Way (2001). (4) El-Zanaty and Way (2006). (5) El-Zanaty et al. (2009). (6) Ministry of Health and Population [Egypt], El-Zanaty and Associates [Egypt], and ICF International (2015))

the 1980s to 34 per 1000 live births in 2000s, and IMR of children for mothers with completed secondary or higher declined from 35.8 per 1000 live births in the 1980s to 21 per 1000 live births in 2000s. It is also noticed that the gap between mortality rate of children for mothers with no education and mortality of children for mothers with completed secondary or higher became smaller because of the campuses of raising awareness among females, especially in rural areas regarding the importance of infant and child care (Table 2.9).

Table 2.9 Infant and child mortality rates by mother's education status in Egypt (1980s–2000s)

Education status	EDHS 1992		EDHS 1995		EDHS 2000		EDHS 2005		EDHS 2008		EDHS 2014	
	1q0	4q1	1q0	4q1	1q0	4q1	1q0	4q1	1q0	4q1	1q0	4q1
No education	97.8	38.9	93.4	33	68.3	22.3	52.1	16.5	37.6	6.7	34	7
Some primary	74.7	27.6	72.9	27.4	60.9	16.9	55.6	12.7	29.3	6.8	38	4
Primary through secondary	62.4	23.5	53.1	11.3	47.5	7.1	37.1	5.9	29.3	6.1	27	4
Completed secondary /higher	35.8	6.2	32.4	7	33.2	4.6	26.8	4	22.2	2.6	21	3

*Rates for the 10-year period preceding the survey

(1) El-Zanaty et al. (1993)

(2) El-Zanaty et al. (1996)

(3) El-Zanaty and Way (2001)

(4) El-Zanaty and Way (2006)

(5) El-Zanaty et al. (2009)

(6) Ministry of Health and Population [Egypt], El-Zanaty and Associates [Egypt], and ICF International (2015)

Conclusion

The population of Egypt accounts for almost 8% of the population in Africa and about 22% of the Arab world. The Egyptian population size almost doubled during the last three decades, from about 48 million in 1986 to about 91 million in 2016. Female population increased from about 24 million in 1986 to about 45 million in 2016, represented about 49% of total population.

The population distribution by sex and place of residence did not change for males and females during the last three decades, between 1986 and 2016. In 1986, the majority of males were in Lower Egypt region with more than 43% of males in Egypt, and this was the case also in 2016, about 43% of males were in Lower Egypt. In 1986, the majority of females were in Lower Egypt, about 43% of females in Egypt, and the same percentage in 2016.

Egypt population age and sex composition changed during the last three decades, especially for the population less than 15 years, as a result of the reduction in the total fertility during the same period from about 5 to 3.5 children per woman.

Regarding the age group (15–59) years, it is noticeable that there was a significant increase between 1986 and 2016, from about 26 million, represented about 54% of total population in 1986 to about 56 million represented about 61% of total population in 2016. Males and females in the age group (15–59) also increased between 1986 and 2016, a number of males in this age group, increased from about 13 million represented almost 54% of males in 1986 to 28 million represented about

61% of total males in 2016. Females in the same age group, (15–59) years, increased from about 13 million which represented about 55% of total females in 1986 to about 28 million represented about 61% of total females in 2016. This increasing was the result of the decline in fertility, and those births in 1986 are in the age group (30–34) years in 2016.

Regarding the age 60+, it seems to be stable percentages during the same period, and percentage of population aged 60 and above was about 6% of total population in 1986 and 2016. Also, this was the case for males and females in 1986 and 2016.

Fertility is one of the most important demographic variables which contribute to the determination of the rate of population growth. During the past three decades, fertility in Egypt decreased from about 5 children per woman to about 3.5 children per woman.

During the last three decades, the life expectancy at birth in Egypt rose due to a number of factors, including reductions in infant mortality and child mortality. For males, the life expectancy at birth increased 60.5 years in 1986 to 73.3 years in 2016, and for females, it increased from 63.5 years to 70.5 years during the same period.

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Chapter 3

Trends in Egyptian Female Participation in Labor Force

Introduction

Female participation in the labor force is considered as an evidence of women's economic empowerment. Egypt population in the working-age population (15–64) years reached almost 59 million, which represents about 64% of the total population. Female population in the working age group (15–64) years represents almost 49% of total population (CAPMAS 2017).

This chapter presents labor force features in Egypt during the last three decades to figure out the improvement in female participation in labor force, using descriptive analysis in addition to working life tables to provide main measures.

It presents trends in labor force by sex, employed and unemployed persons by sex, distribution of employed persons by industry and by occupation, the pattern of age-specific activity rates by sex, Gender equality in labor force in Egypt, the average remaining number of years of active life in the labor force at a given age by sex, accession to labor force by sex, Separations from the labor force due to retirement by sex, and Replacement in labor force by sex.

Main Futures of Labor Force in Egypt

During the last three decades and between 1986 and 2014, the labor force increased and almost doubled from about 13 million to 28 million. Increasing in numbers of males in labor force was almost the double, from about 11 million about 21 million. Although the increasing of females in labor force is almost 5 times during the three decades, it is still considered as low participation.

Table 3.1 Labor force in the working age group (15–64) years by sex in Egypt (1986–2014)

Year	Males (millions)	Females (millions)	Total (millions)
1986 ⁽¹⁾	11.14	1.38	12.52
1996 ⁽²⁾	14.24	2.61	16.85
2006 ⁽³⁾	17.79	3.86	21.65
2014 ⁽⁴⁾	20.87	6.60	27.47

Sources: (1) Central Agency for Public Mobilization and Statistics (1988)

(2) Central Agency for Public Mobilization and Statistics (1998)

(3) Central Agency for Public Mobilization and Statistics (2008)

(4) Central Agency for Public Mobilization and Statistics (2015)

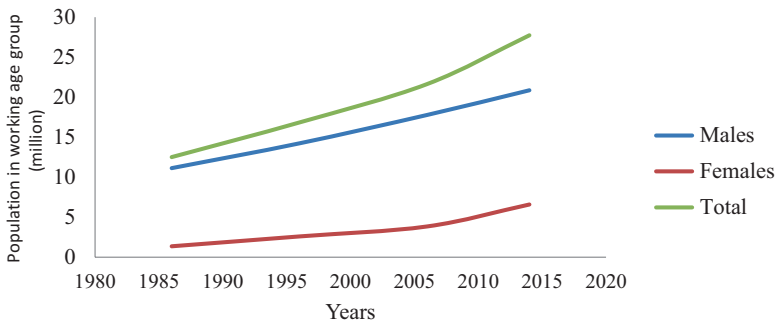


Fig. 3.1 Labor force in the working age group (15–64) years by sex in Egypt (1986–2014) (Sources: (1) Central Agency for Public Mobilization and Statistics (1988). (2) Central Agency for Public Mobilization and Statistics. (1998). (3) Central Agency for Public Mobilization and Statistics (2008). (4) Central Agency for Public Mobilization and Statistics (2015))

In 1986, the percentage of females in labor force was about 11% compared to about 89% for males, in 2014 percentage of females in labor force increased to be almost 24% compared to 75% for males.

Sex ratios in labor force, the percentage of males in labor force to every 100 females in labor force, decreased during the last three decades from 807.25% to about 316.21% (Table 3.1), Figs. 3.1 and 3.2.

According to the Labor force definition, it includes employed and unemployed individuals. Between 1986 and 2014 the number of employed individuals increased from 11 million to about 24 million. Employed females increased about five times from million to five million in 2014 which represent about 21% of total employed individuals in Egypt (Table 3.2).

Distribution of employed persons aged 15 years old and over by industry and sex showed that the economic sector of Agriculture, Hunting, Forestry and Cutting of wood trees had the majority of employed males, more than 41% of employed males aged 15 years old and over in 1986 and the second industry was community and social services, almost 19% of employed males aged 15 years old and over, and this was the case in 2014, the economic sector of Agriculture, Hunting, Forestry and Cutting of wood trees had the highest percentage of employed males aged 15 years old and over, more than 23%, the second economic sector was the industry of construction, more than 14% of employed males.

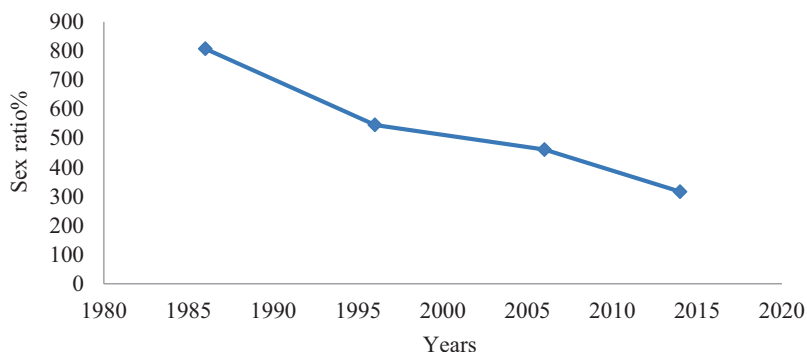


Fig. 3.2 Trends in sex ratios in labor force in Egypt (1986–2014) (Sources: Author’s calculations using: (1) Central Agency for Public Mobilization and Statistics (1988). (2) Central Agency for Public Mobilization and Statistics (1998). (3) Central Agency for Public Mobilization and Statistics (2008). (4) Central Agency for Public Mobilization and Statistics (2015))

Table 3.2 Employed and unemployed individuals in the working age group (15–64) years. In Egypt in 1986 and 2014

Years	Labor force					
	Employed (millions)			Unemployed (millions)		
	Males	Females	Total	Males	Females	Total
1986	10	1	11	1.06	0.35	1.41
2014	18.82	5	23.82	2.1	1.6	3.7

Sources: Author’s calculations using: (1) Central Agency for Public Mobilization and Statistics (1988)

(2) Central Agency for Public Mobilization and Statistics (2015)

Community and social services had the majority of employed females aged 15 years old and over in 1986, more than 60% of employed females aged 15 years old and over and the second economic sector was the sector of Manufactures, about 10% of employed females aged 15 years old and over. In 2014, the economic sector of Agriculture, Hunting, Forestry and Cutting of wood trees had the majority of employed females, more than 43% of employed females aged 15 years old and over and the second economic sector was education, about 22% of employed females aged 15 years old and over (CAPMAS 1988 and CAPMAS 2016).

Distribution of employed persons by occupation and sex during the last three decades showed that the majority of employed males were occupied as farmers and agricultural workers and fishing professionals workers, almost 37% of employed males aged 15 years old and over in 1986 but, this was not the case in 2014 as the majority of employed males was occupied as Artisans and etc., about 20% of employed males aged 15 years old and over (CAPMAS 1988 and CAPMAS 2015).

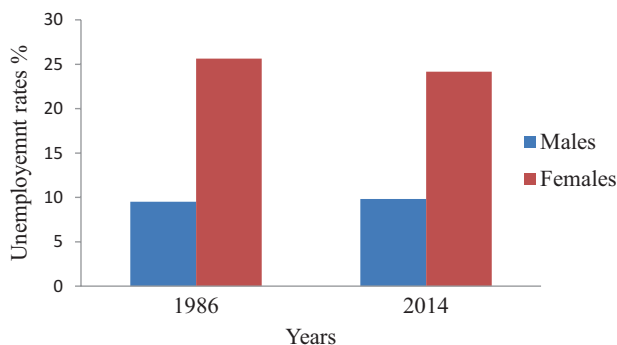


Fig. 3.3 Unemployment rates by sex in Egypt in (1986 and 2014) (Sources: Author's calculations using: (1) Central Agency for Public Mobilization and Statistics (1988). (2) Central Agency for Public Mobilization and Statistics (2015))

In 1986 the majority of employed females were occupied as specialists (the owners of the scientific and technical professions), about 30% of employed females aged 15 years old and over but, this was not the case in 2014, because the majority of employed females were occupied as farmers and agricultural workers and fishing professionals workers, almost 38% of employed females aged 15 years old and over (CAPMAS 1988 and CAPMAS 2015).

In 1986, the majority of employed males were working in the private sector, almost 70% of employed males aged 15 years old and over, same in 2014, the majority of employed males were working in the private sector, almost 75% of employed males aged 15 years old and over (CAPMAS 1988 and CAPMAS 2015).

In 1986, the majority of employed females were working for the government sector, more than 60% of employed females aged 15 years old and over but, in 2014 the majority of employed females were working for the private sector, almost 61% of employed females aged 15 years old and over (CAPMAS 1988 and CAPMAS 2015).

The unemployment rate was almost stable during the last three decades among males in labor force, almost 9.5% of males in the working age group (15–64) years in 1986 and about 9.8% in 2014. Unemployment rate for females in the working age group (15–64) years, slightly decreased from about 25.5% to about 24.1 in 2014 (Fig. 3.3).

The pattern of age-specific activity rates, the percentage of the labor force in the specific age group of total population in the same age group, for males in 1986 and 2014 was almost similar, for males in the age group (25 to 54) years. The peak was in age groups (30–34) year and (35–39) year, 98.58% and 98.60%, 98% and 98.5% in 1986 and 2014 respectively (Table 3.3).

On the other hand, the pattern of age-specific activity rates differed between 1986 and 2014 for males in the age group (15–24) years, as these age groups had higher age-specific activity rates in 1986 in comparison to 2014. In 1986 the economic activity rate for males aged (15–19) years old was higher than its value in 2014 as it was almost 40% of males aged (15–19) compared to about 26% of males aged (15–19) in 2014 and the economic activity rate for males aged (20–24) years

Table 3.3 Age specific activity rates by sex in Egypt in (1986 and 2014)

Age groups	Age specific activity rates%			
	1986		2014	
	Males	Females	Males	Females
15–19	39.56	5.93	25.7	8.5
20–24	78.93	18.93	69.6	32.3
25–29	95.40	16.88	95.3	31.2
30–34	98.58	14.22	98	34.9
35–39	98.60	9.60	98.5	25.5
40–44	97.26	7.49	97.9	32.1
45–49	96.17	5.37	96.6	25.2
50–54	94.09	3.52	94.9	28.3
55–59	91.26	2.65	87.9	20.6
60–64	67.06	1.41	43.1	6.3

Sources: Author's calculations using: (1) Central Agency for Public Mobilization and Statistics (1988)

(2) Central Agency for Public Mobilization and Statistics (2015)

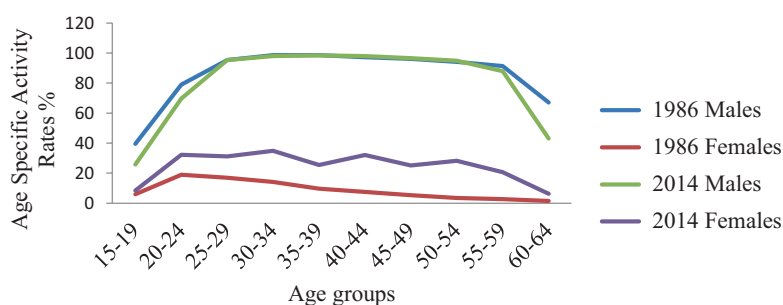


Fig. 3.4 Age specific activity rates by sex in Egypt in (1986 and 2014) (Sources: Author's calculations using: (1) Central Agency for Public Mobilization and Statistics (1988). (2) Central Agency for Public Mobilization and Statistics (2015))

old in 1986 was higher than its value in 2014, as it was almost 79% of males aged (20–24) in 1986 compared to about 70% in 2014. For males in the age group (60–64) years, there was remarkably decreased in the economic activity rate from about 67% in 1986 to about 43% in 2014 (Table 3.3 and Fig. 3.4).

The female's pattern of age-specific activity rates significantly differed between 1986 and 2014, and this was the case for all age groups where the age-specific activity rates increased in 2014 in comparison to 1986, for example The economic activity rate for females in the age group (30–34) years was almost doubled from about 14% in 1986 to about 35% in 2014. Unlike males in the age group (55–59) years, the female economic activity rate increased by almost 10 times from 2.6% in 1986 to more than 20% in 2014, and the same for females in the age group (60–64) years as the economic activity rate increased with more than 4 times from 1.4% in 1986 to about 6.3% in 2014 (Table 3.3 and Fig. 3.4).

Table 3.4 Gender index for the percentage of females to males in labor force in the age group (15–64) in Egypt in (1986–2014)

Year	Gender index for the Percentage of females to males in labor force
1986	0.124
1996	0.183
2006	0.217
2014	0.316

Sources: Author's calculation using data from:

- (1) Central Agency for Public Mobilization and Statistics (1988)
- (2) Central Agency for Public Mobilization and Statistics (1998)
- (3) Central Agency for Public Mobilization and Statistics (2008)
- (4) Central Agency for Public Mobilization and Statistics (2015)

Gender Equality in Labor Force in Egypt

During the last three decades and between 1986 and 2014, the gender equality in Egypt changed remarkably; this could be revealed from gender equality index, the best case is to equal one, which considered as one of the measures of women's economic empowerment. It could be calculated for some labor force indicators like Percentage of females to males in labor force, unemployment rates by sex and age specific activity rates for males in comparison to females.

Gender index for the percentage of females to males in labor force in the age group (15–64) years in Egypt, reveals an increasing from 0.12 in 1986 to 0.32 but, it is still very low, it did not even reach 0.5 (Table 3.4).

Gender index for the unemployment rate for the age group (15–64) years, was almost the same in 1986 and 2014, (2.7 in 1986 and 2.5 in 2014), which means that there was no improving in the unemployment among females in comparison to males, the gap still wide (CAPMAS 1988 and CAPMAS 2015).

Gender index for the age specific economic rates for the age group (15–64) years, reveals that there were improving in the female participation in labor force for all of the economic age groups (15–64) year, even it was not significant improvement, the age group (20–24) year had the highest gender index for 1986 and 2014, (0.24 and 0.46 in 1986 and 2014 respectively). Still, this improvement could not be considered as a significant improvement as it was not equal one for any age group in 1986 and also in 2014 (Table 3.5).

Working Life Tables by Sex for Egypt in 1986 and 2014

Working life tables provide an indication of the average number of working years to be expected by a given age by all persons or by persons in the labor force attaining that age.

Working life tables provide information on accession to and separation from the labor force, these measures are useful for studying growth and change in labor force

Table 3.5 Gender index for the age specific economic rates in Egypt in 1986 and 2014

Age groups	Gender index for the age specific economic rates	
	1986	2014
15–19	0.150	0.331
20–24	0.240	0.464
25–29	0.177	0.327
30–34	0.144	0.356
35–39	0.097	0.259
40–44	0.077	0.328
45–49	0.056	0.261
50–54	0.037	0.298
55–59	0.029	0.234
60–64	0.021	0.146

Sources: Author's calculation using data from:

- (1) Central Agency for Public Mobilization and Statistics (1988)
- (2) Central Agency for Public Mobilization and Statistics (1998)
- (3) Central Agency for Public Mobilization and Statistics (2008)
- (4) Central Agency for Public Mobilization and Statistics (2015)

and related topics; such as estimating lifetime expectations of earnings, estimating replacement needs for industry, and assessing the economic implications of changes in the activity rates and age-structure of the population (Shryock and Seigel 1973).

Working life tables are produced by combining mortality rates with labor force participation rates, using abridged life tables by sex for Egypt in 1986 and 2014 and labor force participation rates by sex and age for Egypt in 1986 and 2014.

Building abridged working life tables by sex for Egypt in 1986 and 2014, help in producing the main measurements of the labor force by sex and calculating the gender gap in these measurements.

The main measurements that could be extracted from working life tables are:

(1) The Average Remaining Number of Years of Active Life in the Labor Force at a Given Age

In 1986, the average number of years of active life in the labor force, $e^{\circ w}_x$, decreasing by getting older for males and females but, in general, and for all working age groups (15–64) years, the average number of years of active life in the labor force for males was higher than females. For example The value of this indicator for the age group (25–29) for males in labor force, the average number of reaming years of active life, was almost the double of the value for females in the same age group, about 35 years for males and 17 years for females.

The gap between males and females was getting closer for the last two working age groups, (55–59) and (60–64). The average number of years of active life in the labor force was almost 10 years and 7 years respectively for males in these two age groups, and about 8 years and 6 years respectively for females in the same age groups (Tables 3.6 and 3.7).

In 2014, the average number of years of active life in the labor force, decreasing by getting older for males and females but, in general, and for all working age

Table 3.6 Working life table for males in Egypt, 1986

Age groups	w_x	I_x	${}_nL_x$	LW_x	LW^*_x	lw_x	lw^*_x	T_x	TW_x	TW^*_x	e^0_x	e^w_x
15-19	0.40	86.031	428,235	169,410	422,240	0	84,818	4,334,947	3,419,679	3,769,283	50.4	39.75
20-24	0.79	85,264	423,601	334,348	417,671	50,515	84,062	3,906,712	3,250,269	3,347,043	45.8	38.12
25-29	0.95	84,177	417,797	398,578	411,948	73,373	82,990	3,483,111	2,915,921	2,929,373	41.35	34.64
30-34	0.99	82,942	411,087	405,250	405,332	80,445	81,773	3,065,315	2,517,342	2,517,425	36.95	30.35
35-39	0.986	81,493	402,825	397,185	397,185	80,344	80,344	2,654,228	2,112,093	2,112,093	32.55	25.92
40-44	0.979	79,638	391,990	381,249	381,249	77,989	77,989	2,251,403	1,714,907	1,714,908	28.25	21.53
45-49	0.967	77,159	377,286	362,836	362,836	74,624	74,624	1,859,413	1,333,658	1,333,658	24.1	17.28
50-54	0.94	73,756	356,934	335,839	335,839	70,164	70,164	1,642,255	1,125,194	1,125,194	20.1	13.16
55-59	0.91	69,018	328,982	300,229	300,229	63,962	63,962	1,125,194	634,983	634,983	16.3	9.20
60-64	0.67	62,575	291,326	195,363	195,363	49,534	49,534	796,212	334,754	334,754	12.7	5.35
65-69	0.41	53,960	242,690	98,435	98,435	29,036	29,036	504,887	139,391	139,391	9.35	2.58
70-74	0.17	43,121	184,999	30,673	30,673	12,320	12,320	262,197	40,956	40,956	6.1	0.95
75+	0.13	30,879	77,198	10,283	10,283	4616	4616	77,198	10,283	10,283	2.5	0.33

Age groups	e^w_x	I_x	${}_nW_x$	${}_n m_x$	DW_x	D^+W_x	$W_{x+n}W_x$	${}_nW^+_x$	${}_nW^*_x$	${}_nW^+_x$	${}_nW^-_x$
15-19	44.44	10.65	50514.7	0.002	330.35	331.03	0.592	50741.6	50845.68	196.45	
20-24	39.82	7.68	22858.2	0.003	857.60	859.93	0.279	23653.9	23718.16	265.74	
25-29	35.30	6.71	7072.6	0.003	1177.80	1184.61	0.098	8209.7	8257.17	429.64	

30-34	30.79	6.60	-101.5	0.004	1430.53	1261.99	0.016	1315.5	1160.49	198.80	
35-39	26.29	6.63	-2354.5	0.005	1831.02	1824.59	-0.007	-531.7	-529.86		-1.334
40-44	21.99	6.72	-3365.2	0.006	2413.31	2412.82	-0.012	-952.5	-952.34		-2.498
45-49	17.87	6.82	-4460.2	0.009	3274.59	3267.02	-0.016	-1196.0	-1193.23		-3.289
50-54	13.84	6.94	-6201.7	0.013	4459.94	4452.16	-0.025	-1752.5	-1749.49		-5.209
55-59	9.93	7.10	-14428.1	0.020	5884.49	5745.58	-0.135	-8892.4	-8682.48		-28.920
60-64	6.76	7.35	-20498.5	0.030	5783.73	5768.12	-0.254	-14770.2	-14730.37		-75.400
65-69	4.80	6.77	-16716.2	0.045	4397.59	4415.45	-0.252	-12251.0	-12300.76		-124.963
70-74	3.32	5.15	-7703.3	0.066	2031.16	2212.92	-0.136	-5039.4	-5490.34		-178.997
75+	2.23	2.17	-4616.4	0.400	4113.11	2956.99	-0.150	-2308.2	-1659.42		-161.379

Sources: Author's calculation using data from:

(1) Central Agency for Public Mobilization and Statistics (1988)

(2) Makhlouf et al. (2000)

Table 3.7 Working life table for females in Egypt, 1986

Age groups	${}_n w_x$	w_x	l_x	${}_n L_x$	LW_x	LW_x^*	lw_x	lw_x^*	T_x	TW_x	TW_x^*	e^0_x	$e^0 w_x$
15-19	0.059	0	88,310	440,366	26,114	83,361	0	15,812	4,776,359	370,114	427,361	54.1	4.19
20-24	0.189	0.12	87,836	437,573	82,833	82,833	10,918	15,727	4,335,994	344,000	344,000	49.35	3.92
25-29	0.169	0.18	87,193	433,979	73,256	73,256	15,612	15,612	3,898,421	261,168	261,168	44.7	3.00
30-34	0.142	0.16	86,399	429,537	61,080	61,080	13,435	13,435	3,464,442	187,912	187,912	45.1	2.17
35-39	0.096	0.12	85,416	423,951	40,699	40,699	10,173	10,173	3,034,905	126,832	126,832	40.55	1.48
40-44	0.075	0.09	84,164	416,729	31,213	31,213	7192	7192	2,610,955	86,133	86,133	31.05	1.02
45-49	0.054	0.06	82,528	407,052	21,859	21,859	5307	5307	2,194,226	54,920	54,920	26.3	0.67
50-54	0.035	0.04	80,293	393,549	13,853	13,853	3569	3569	1,787,174	33,061	33,061	22.25	0.41
55-59	0.027	0.03	77,127	374,237	9917	9917	2379	2379	2,787,250	19,208	19,208	18.05	0.25
60-64	0.014	0.02	72,568	346,498	4886	4886	1473	1473	1,019,389	9291	9291	14	0.13
65-69	0.009	0.01	66,031	307,107	2795	2795	766	766	672,891	4405	4405	10.2	0.07
70-74	0.005	0.01	56,812	253,907	1219	1219	395	395	365,784	1610	1610	6.45	0.03
75+	0.004	0.00	44,751	111,878	392	392	186	186	111,878	392	392	2.5	0.01

Age groups	$e^0 w_x^*$	I_x	${}_n W_x$	${}_n m_x$	DW_x	D^+W_x	W_{x+n}	I^+W_x	$I^+W_x^*$	W_n^+	W_n^-
15-19	27.03	49.91	10,918	0.001	28.20	28.2	0.124	10,947	10,946	26.42	
20-24	21.87	45.43	4694	0.001	121.76	122.4	0.055	4791	4816	13.58	
25-29	16.73	41.70	-2177	0.002	134.42	134.3	-0.024	-2044	-2043		-27.88

30-34	13.99	42.93	-3262	0.002	139.87	139.7	-0.036	-3127	-3122	-51.12
35-39	12.47	39.07	-2981	0.003	120.27	120.6	-0.034	-2853	-2861	-70.29
40-44	11.98	30.03	-1885	0.004	122.67	122.7	-0.021	-1763	-1763	-56.47
45-49	10.35	25.63	-1738	0.005	120.11	120.2	-0.020	-1616	-1617	-73.99
50-54	9.26	21.84	-1190	0.008	111.52	112.2	-0.014	-1070	-1077	-77.78
55-59	8.07	17.80	-906	0.012	120.89	120.3	-0.011	-790	-786	-79.25
60-64	6.31	13.87	-707	0.019	92.26	93.9	-0.009	-603	-613	-125.53
65-69	5.75	10.13	-371	0.030	83.97	84.3	-0.005	-286	-287	-102.62
70-74	4.08	6.42	-209	0.048	57.95	60.5	-0.003	-142	-149	-121.91
75+	2.11	2.49	-186	0.400	156.63	116.6	-0.004	-93	-69	-176.53

Sources: Author's calculation using data from:

(1) Central Agency for Public Mobilization and Statistics (1988)

(2) Makhlouf et al. (2000)

groups (15–64) years, the gender gap between males and females remarkably decreased in comparison to the status in 1986. For example The value of the gap of this indicator for the age group (25–29) between males and females was only about 5 years; for males (25–29) in labor force, the average number of remaining years of active life was almost 36 years and about 31 years for females. The gap between males and females was getting closer for the last two working age groups, (55–59) and (60–64). The average number of years of active life in the labor force were almost 9 years and 7 years respectively for males and about 6 years and 4 years respectively for females (Tables 3.8 and 3.9).

(2) Accession to labor force

In 1986, the accession to the male labor force (15–64) was between the ages 15 and 34 years, the rate of net accession, ${}_n w^+_x$, to the male labor force reached its peak in the age group (25–29) years, about 430 per thousand out of labor force (Table 3.6).

For females the accession to the female labor force (15–64) was only between the ages 15 and 24 years, the rate of net accession, ${}_n w^+_x$, to the female labor force was about 26 per thousand out of labor force and about 13 per thousand out of labor force for age groups (15–19) and (20–24) respectively (Table 3.7).

In 2014, the accession to the male labor force (15–64) was between the ages 15 and 34 years, the rate of net accession to the male labor force reached its peak for the age group (25–29) years, about 606 per thousand out of labor force (Table 3.7).

For females the accession to the female labor force (15–64) was between the ages 15 and 29 years, its values reached its peak for the age group (15–19), about 45 per thousand out of labor force (Table 3.9)

(3) Separations from the labor force due to retirement

In 1986, the separation from the labor force due to retirement, ${}_n w^-_x$, for males started from the age group (35–39) years, about 1.33 per thousand in the labor force. The rate reached about 75 per thousand in the labor force for the age group (60–64) years (Table 3.6).

The separation from the labor force due to retirement for females started from the age group (25–29) years, with a very high rate in comparison to males at the same age group, about 28 per thousand in the labor force. For females aged (60–64), the rate reached about 126 per thousand in the labor force (Table 3.7).

In 2014, the separation from the labor force due to retirement, ${}_n w^-_x$, for males started from the age group (35–39) years, about 0.10 per thousand in the labor force. The rate reached about 160 per thousand in the labor force for the age group (60–64) years, which is almost the double of the same rate for males in 1986 (Table 3.8).

The separation from the labor force due to retirement for females started from the age group (30–34) years, with the rate of 16 per thousand in labor force. For females aged (60–64), the rate reached about 309 per thousand in the labor force (Table 3.9).

Table 3.8 Working life table for males in Egypt, 2014

Age groups	${}_nW_x$	w_x	l_x	$l_{n,x}$	LW_x	LW^*_x	lw_x	Lw^*_x	T_x	TW_x	TW^*_x	e^0_x	e^0w_x
15-19	0.257	0	96.825	482.775	124.073	475.533	0	95.131	5,402,755	3,839,275	4,344,794	56	39.65
20-24	0.696	0.4765	96.244	479.557	333.772	472.363	45.860	94.560	4,919,980	3,715.202	3,869,260	51	38.60
25-29	0.953	0.8245	95.571	476.178	453.798	469.036	78.798	93.898	4,440,423	3,381,430	3,396,897	46	35.38
30-34	0.98	0.9665	94.902	472.880	463.422	463.651	91.722	93.241	3,964,245	2,927.632	2,927.632	42	30.85
35-39	0.985	0.9825	94.237	469.186	462.148	462.148	92.588	92.588	3,491,365	2,464,210	2,464,210	37	26.15
40-44	0.979	0.982	93.389	463.981	454.237	454.237	91.708	91.708	3,022,179	2,002,062	2,002,062	32	21.44
45-49	0.966	0.9725	92.082	454.625	439.168	439.168	89.549	89.549	2,558,199	1,547,825	1,547,825	28	16.81
50-54	0.949	0.9575	89.503	437.318	415.014	415.014	85.699	85.699	2,103,574	1,108,657	1,108,657	24	12.39
55-59	0.879	0.914	85.028	407.788	358.445	358.445	77.716	77.716	1,666,256	693,642	693,642	20	8.16
60-64	0.431	0.655	77.631	365.353	157,467	157,467	50,848	50,848	1,258,468	335,197	335,197	16	4.32
65+	0.199	0.315	68.237	893,115	177,730	177,730	21,495	21,495	893,115	177,730	177,730	13	2.60

Age groups	$e^0w^*_x$	I_x	I^nw_x	${}_n m_x$	DW_x	D^+W_x	$W_{x+n}W_x$	$I^nW^+_x$	$I^nw^*_x$	W^+_x	W^-_x
15-19	45.7	16.15	45860.4	0.0012	149.30	149.31	0.477	46008.46	46009.70	128.27	
20-24	40.9	12.52	32937.5	0.0014	468.90	469.32	0.348	33377.16	33406.85	229.15	
25-29	36.2	11.08	12924.4	0.0014	637.55	639.46	0.142	13523.47	13563.89	606.06	
30-34	31.4	10.92	865.7	0.0014	651.02	653.70	0.016	1513.22	1519.44	160.66	
35-39	26.6	10.90	-880.0	0.0018	835.41	833.19	0.000	-46.92	-46.79	-0.101	
40-44	21.8	10.92	-2158.7	0.0028	1279.99	1278.29	-0.009	-881.56	-880.39	-1.938	
45-49	17.3	10.97	-3849.9	0.0057	2490.63	2487.68	-0.015	-1363.87	-1362.26	-3.102	
50-54	12.9	11.12	-7983.7	0.0102	4246.94	4211.12	-0.044	-3804.66	-3772.58	-9.090	
55-59	8.9	11.44	-26867.6	0.0181	6502.36	6323.92	-0.259	-21123.40	-20543.72	-57.313	
60-64	6.6	11.89	-29353.4	0.0257	4048.52	4113.09	-0.340	-24844.00	-25240.26	-160.289	
65+	8.3	10.48	-21494.8	0.0764	13579.25	4178.98	-0.315	-56266.26	-17315.81	-97.428	

Sources: Author's calculation using data from:

- (1) Central Agency for Public Mobilization and Statistics (2015)
- (2) World Health Organization (2016)

Table 3.9 Working life table for females in Egypt, 2014

Age groups	w_x	I_x	I_{n-x}	LW_x	LW^*_x	lw_x	Lw^*_x	T_x	TW_x	TW^*_x	e^o_x	e^{w_x}	
15-19	0.09	0	97,218	485,620	41,278	169,481	0	32,131	5,830,969	1,175,574	1,332,241	59.98	12.07
20-24	0.32	0.20	97,024	484,414	156,466	169,061	19,793	32,066	5,345,350	1,132,296	1,162,760	55.09	11.67
25-29	0.31	0.32	96,732	482,954	150,682	168,551	30,713	31,970	4,860,935	975,830	993,700	50.25	10.09
30-34	0.35	0.33	96,442	481,302	167,974	167,974	31,874	31,874	4,377,982	825,149	825,149	45.39	8.56
35-39	0.26	0.30	96,056	478,938	122,129	122,129	29,009	29,009	3,896,679	657,174	657,174	40.57	6.84
40-44	0.32	0.29	95,480	475,426	152,612	152,612	27,498	27,498	3,417,742	535,045	535,045	35.80	5.60
45-49	0.25	0.29	94,621	469,681	118,360	118,360	27,109	27,109	2,942,316	382,433	382,433	31.10	4.04
50-54	0.28	0.27	93,107	459,456	130,026	130,026	24,906	24,906	2,472,635	264,074	264,074	26.56	2.84
55-59	0.21	0.24	90,407	440,604	90,764	90,764	22,104	22,104	2,013,179	134,048	134,048	22.27	1.48
60-64	0.06	0.13	85,434	410,309	25,849	25,849	11,491	11,491	1,572,576	43,283	43,283	18.41	0.51
65+	0.02	0.04	78,343	1,162,266	17,434	17,434	3055	3055	1,162,266	17,434	17,434	14.84	0.22

Age groups	$e^{w^*_x}$	I_x	I^w_x	m_x	DW_x	D^+W_x	$W_{x+n}-W_x$	I^w+_x	I^w-_x	W^+_n	W^-_n
15-19	41.46	47.91	19792.80	0.0004	16.53	16.52	0.20	19813.2953	19809.32	44.58	
20-24	36.26	43.42	10919.75	0.0006	94.02	94.17	0.11	10996.2021	11013.92	33.58	
25-29	31.08	40.16	1161.61	0.0006	90.54	90.27	0.01	1255.67994	1251.88	3.77	
30-34	25.89	36.84	-2865.11	0.0008	134.63	134.03	-0.03	-2743.4215	-2731.08		-16.26
35-39	22.65	33.73	-1510.78	0.0012	146.97	149.22	-0.01	-1341.0258	-1361.56		-11.15
40-44	19.46	30.19	-389.42	0.0018	275.84	256.69	0.00	-142.62768	-132.73		-0.87
45-49	14.11	27.05	-2202.77	0.0032	381.51	387.93	-0.02	-1784.7878	-1814.84		-15.33
50-54	10.60	23.72	-2801.63	0.0059	764.13	743.95	-0.02	-2113.4978	-2057.68		-15.83
55-59	6.06	20.79	-10613.53	0.0113	1024.31	1014.36	-0.11	-9693.2778	-9599.17		-105.76
60-64	3.77	17.90	-8435.54	0.0173	446.74	454.93	-0.10	-7836.906	-7980.61		-308.73
65+	5.71	14.61	-3055.39	0.0674	1175.15	350.61	-0.04	-9065.6773	-2704.78		-155.14

Sources: Author's calculation using data from:

(1) Central Agency for Public Mobilization and Statistics (2015)

(2) World Health Organization (2016)

(4) Replacement in labor force

Replacement in labor force is the difference between accession to the labor force and separation from the labor force. In 1986, the replacement rate for males in labor force (15–64) was about 30 per thousand in labor force in comparison to about 25 per thousand in labor force for females.

In 2014, the replacement rate for males in labor force (15–64) was about 24.4 per thousand in labor force in comparison to about 18 per thousand in labor force for females.

Conclusion

Egyptian Female participation in the labor force has been changed during the last three decades, which has consequently contributed in achieving the Egyptian women's economic empowerment.

This chapter presents labor force features by sex in Egypt during the last three decades to figure out the improvement in female participation in labor force, using descriptive analysis in addition to working life tables to provide main measures.

Gender index for the percentage of females to males in labor force in the age group (15–64) years in Egypt, reveals that there were an increasing from 0.12 in 1986 to 0.32 but, it is still very low, it did not even reach 0.5.

Gender index for the unemployment rate for the age group (15–64) years, was almost the same in 1986 and 2014, (2.7 in 1986 and 2.5 in 2014), which means that there was no improving in the unemployment among females in comparison to males, the gap still wide.

Gender index for the age specific economic rates for the age group (15–64) years, reveals that there were improving in the female participation in labor force for all of the economic age groups (15–64) year, even it was not significant improvement, the age group (20–24) year had the highest gender index for 1986 and 2014, (0.24 and 0.46 in 1986 and 2014 respectively). Still, this improvement could not be considered as a significant improvement as it was not equal one for any age group in 1986 and also in 2014.

Community and social services had the majority of employed females aged 15 years old and over in 1986, more than 60% of employed females aged 15 years old and over. In 2014, the economic sector of Agriculture, Hunting, Forestry, and Cutting of wood trees had the majority of employed females, more than 43% of employed females aged 15 years old and over.

In 1986, the majority of employed females were working for the government sector, more than 60% of employed females aged 15 years old and over but, in 2014 the majority of employed females were working for the private sector, almost 61% of employed females aged 15 years old and over.

The accession to the female labor force (15–64) was only between the ages 15 and 24 years, the rate of net accession, ${}_n w^+_x$, to the female labor force was about 26

per thousand out of labor force and about 13 per thousand out of labor force for age groups (15–19) and (20–24) respectively.

In 2014, the accession to the female labor force (15–64) was between the ages 15 and 29 years, its values reached its peak for the age group (15–19), about 45 per thousand out of labor force.

In 1986, the separation from the labor force due to retirement for females started from the age group (25–29) years, with a very high rate in comparison to males at the same age group, about 28 per thousand in the labor force. For females aged (60–64), the rate reached about 126 per thousand in the labor force.

In 2014, the separation from the labor force due to retirement for females started from the age group (30–34) years, with the rate of 16 per thousand in labor force. For females aged (60–64), the rate reached about 309 per thousand in the labor force.

In 1986, the replacement rate for females in labor force (15–64) was about 25 per thousand in labor force. In 2014, the replacement rate for females in labor force (15–64) was about 18 per thousand in labor force for females.

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Chapter 4

Future of Egyptian Female Participation in Labor Force

Introduction

In accordance with the United Nations' agenda for 2030 for sustainable development, namely the fifth goal: "Achieve gender equality and empower all women and girls" (United Nations 2015). It is important to plan for the future of women's economic empowerment for females in Egypt. The expected number of females in labor force and the participation in the economic life in 2030 is one of the main important basics to produce plans and strategies for women's economic empowerment. This chapter provides a projection of population by sex and age groups of Egypt in 2030 and expected females participation in labor force according to different scenarios. It also sheds light on the demographic dividend in Egypt with a focus on females which provide an opportunity to have a window for more investment in women's economic empowerment.

The Labor force is part of the total population, and the future of population and labor force participation would help in providing evidence-based to the decision and policy makers to achieve the Sustainable development goals by 2030.

This chapter provides a projection of population by sex and age groups of Egypt in 2030 and expected females participation in labor force according to different scenarios. It also sheds light on the demographic dividend in Egypt with a focus on females which provide an opportunity to have a window for more investment in women's economic empowerment.

Future of Egypt Population by Sex in 2030

Population projection is the numerical outcome of a particular set of assumptions regarding the future population; it can be described as calculations which produce a picture of the future population when certain assumptions are made about the future course of fertility, mortality, and migration.

Population projections play a very important role in supporting planners and decision makers to improve the future of women's economic empowerment. This section provides population projection for Egypt in 2030, which will be used to produce a projection of female labor force according to selected scenarios.

Model of population projection is produced to project Egypt population by age and sex to the year of 2030, where the cohort-component method was used. Cohort-component method was first employed in producing global population projections by Notestein (1945). According to this method, the population is divided into age-sex groups (birth cohort) and accounts separately for fertility, mortality and migration behavior of each cohort along the projection horizon.

For the population distribution by age, sex and place of residence at the base year of the projection, estimation for the population in mid of the year 2013 was used, and the age and sex composition were calculated using the post- enumeration survey for the last population census in Egypt in 2006.

For the fertility component, data from series of Egypt demographic and health surveys¹ were used. Furthermore, for the mortality component, data from series of Egypt demographic and health surveys were used to estimate the life expectancy at birth. For the migration component, the results of the last census in Egypt in 2006 were used to calculate the current internal migration between governorates, and then the United Nations' estimates were used to calculate the international migration.

The projections were made according to three scenarios: (1) constant scenario; that assumes all components (fertility, mortality, and migration) will be constant as it were in 2013 till 2030 (2) Trend scenario; that reproduces the trend observed in the last years, it assumes that the fertility and mortality components will continue following the past trend to 2030, and the migration component will be constant at its level in 2006, where the migration is not significant in the population growth in Egypt as much as the fertility component. (3) Ambitious Scenario that assumes the fertility component will reach replacement level (2.1 children per women) by 2030.

The results of population projection by sex according to the three scenarios show that Egypt population size will reach about 127 million in 2030 according to the constant scenario, almost 126 million according to the trend scenario, and 119 million according to the ambitious scenario. According to the constant and trend scenario, the female population will reach almost 6.2 million in 2030 and about 59 million according to the ambitious scenario (Table 4.1) and (Fig. 4.1).

¹Egypt demographic and health survey is conducted regularly each 4/5 years on a sample of ever married women age 15–49. The main purpose of the EDHS is to provide detailed information on fertility, family planning, infant and child mortality, maternal and child health and nutrition.

Table 4.1 Egypt population projection by sex according to three scenarios in 2030

Scenarios	Egypt population by sex in 2030 (Thousands)		
	Males	Females	Total
Constant scenario	64,221	62,705	126,926
Trend scenario	63,731	62,139	125,871
Ambitious scenario	60,217	58,801	119,018

Source: Author’s estimations

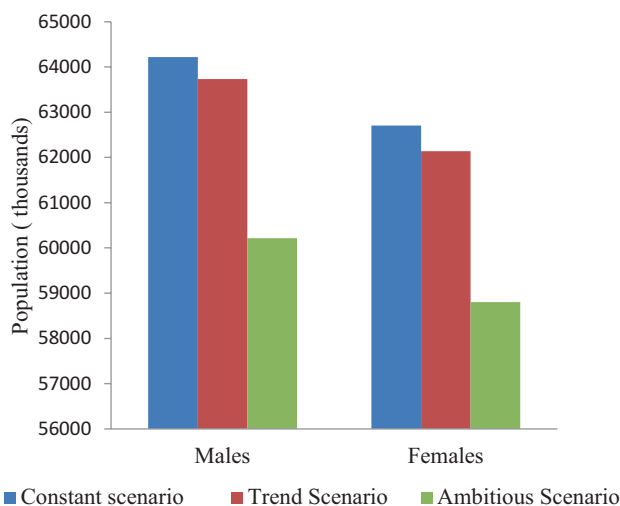


Fig. 4.1 Egypt population by sex according to constant – trend – ambitious scenarios in 2030 (Source: Author’s estimations)

The results of Egypt population projection showed that the number of working-age population (15–64) years would reach more than 75.0 million in 2030, which will represent almost between 59% and 63% of the total population according to the three scenarios. The female population in working age groups will represent almost 49.5% according to the constant scenario, 49.4% according to the trend and ambitious scenarios of the total population in the working age group (15–64) years. Female population in the working age group (15–64) years will represent almost between 59% and 64% of the total female population in 2030. This situation will be good opportunity to the planners and decision makers responsible for women’s economic empowerment, where they can prepare well to catch that opportunity by producing some training programs to females in the working age group, in which these population groups could be involved, and be part of the production process in the future (Table 4.2).

Table 4.2 Working age population by sex according to constant, trend and ambitious scenarios in Egypt 2030

Scenarios	Working age population (15–64) by sex according to constant, trend and ambitious scenarios in Egypt 2030 (Thousands)		
	Males	Females	Total
Constant scenario	37,915	37,152	75,067
Trend scenario	38,381	37,493	75,874
Ambitious scenario	38,321	37,436	75,757

Source: Author's estimations

Demographic Dividend

As we mentioned in Chap. 2, demographic transition is a process of four main stages: first (both mortality and fertility rates are very high, so the total population growth rate is low); second stage (mortality rates tend to decline due to improvements in medicine and public health, so total population growth rate significantly increases, and young cohorts are dependent and need large expenditures to provide them with their needs from education, food, health and so on. So the dependency ratio tends to increase dramatically to be a heavy burden on the economy; after that this generation itself reaches the prime reproductive years; so even if total fertility rates have been reduced to the replacement level, the population will continue to grow until the members of the first generation and successive generations have passed through their prime reproductive years. This process is called “population momentum.” In the third stage, fertility rates begin to decline. The main features of that stage are lower population growth rate and significant change in the age structure so that it will shift from a young structure to one in which the working age population is predominant, so young cohorts become an adult and have the ability to work and earn income. Hence, the dependency ratio tends to decline. During that stage, the economy has a unique opportunity to boost economic growth; this opportunity is available only for a limited time that the change in the age structure because of decline fertility will create a one-time demographic gift (Nassar et al. 2006).

According to the definition and characteristics of the demographic window that including; decline in population under 15 years, decline in the natural rate of increase and the population increase in the working age group (15–64), our results show that in 2030, Egypt will still be benefiting from the opportunity of demographic window, where proportions of children are projected to decline further in the near-term future, while the size and the proportion of populations in the prime working ages can be expected to grow. The relatively high ratio of working to dependent populations gives the country the possibility of benefitting from a “demographic dividend.

Projection of Labor Force Participation for Females

Female labor force participation in Egypt increased during the last three decades with almost 7 times, based on the population projections it is clear that female in the working age group (15–64) will continue growing in 2030. Female in labor force is a part of females in the working age group, and it is expected to have more female in the labor force based on the universal and national programs that encourage women's economic empowerment.

This part of the study provides projections of the female labor force participation in Egypt in 2030 using data on labor force participation rates from the Egypt censuses and the annual series of the labor force sample surveys.

The projection of female labor force participation was conducted by using 3 scenarios for the period 2014 to 2030: (1) Constant scenario that assumes female participation in the labor force will be constant of its value in 2014. (2) Trend scenario that reproduces the trend observed in the last years, it assumes that the female labor force participation rate will continue following the past trend to 2030. (3) Ambitious scenario that assumes a duplication of the 2014 value of the female labor force participation rate, 24%, to be 48% in 2030.

The results of the projection of the female labor force participation rate in 2030 indicate that; according to the constant scenario, the female labor force participation rate will be constant of its value in 2014 which was 24% of female in the working age group (15–64) years.

According to the trend scenario, the female labor force participation rate will reach a value of 32% of female in the working age group (15–64) years in 2030.

According to the ambitious scenario, the female labor force participation rate will reach a value of 48% of female in the working age group (15–64) years in 2030 (Table 4.3 and Fig. 4.2).

Table 4.3 Female labor force participation rates (15–64) in Egypt (1986–2030)

Female labor force participation rates (%)	1986	1996	2006	2014	2030		
					Constant scenario	Trend scenario	Ambitious scenario
	10.36	15.18	20.40	23.93	23.93	31.90	47.86

Sources: Author's calculation using data from:

(1) Central Agency for Public Mobilization and Statistics (1988)

(2) Central Agency for Public Mobilization and Statistics (1998)

(3) Central Agency for Public Mobilization and Statistics (2008)

(4) Central Agency for Public Mobilization and Statistics (2015)

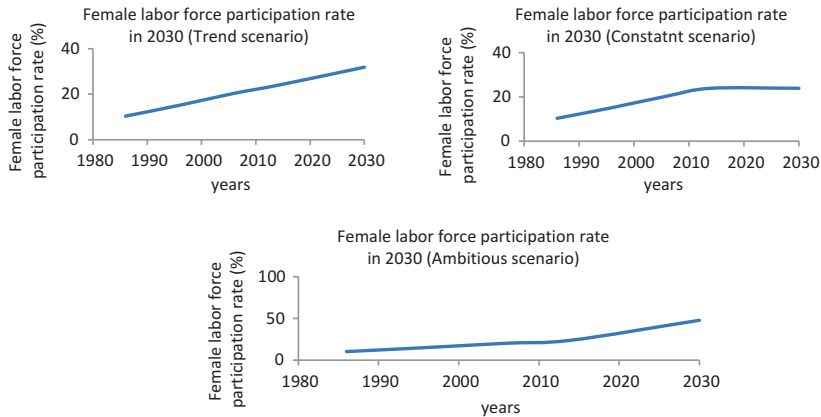


Fig. 4.2 Female labor force participation rates in Egypt in 2030 according to three scenarios (Sources: Author's calculation using data from: (1) Central Agency for Public Mobilization and Statistics (1988). (2) Central Agency for Public Mobilization and Statistics (1998). (3) Central Agency for Public Mobilization and Statistics (2008). (4) Central Agency for Public Mobilization and Statistics (2015))

Egyptian Female Participation in Labor Force in 2030 According to Different Scenarios

Future of female participation in the labor force could be estimated using the projected female population in the working age group (15–64) and the projected labor force participation rates for females.

The previous parts produced projections of the female population in the working age group (15–64) in 2030, according to three scenarios: (1) constant scenario, (2) Trend scenario and (3) Ambitious Scenario, the projected labor force participation rates for females in 2030 were also according to same three scenarios.

The combination of the three scenarios for projected female population in the working age group (15–64) and the three scenarios for the projected labor force participation rates for females produced female participation in labor force according to nine scenarios as following:

- (1) Constant/Constant scenario: This scenario assumes that all components of the population growth (fertility, mortality, and migration) will be constant as it were in 2013 until 2030, and that female participation in labor force will be constant of its value in 2014 till 2030, according to this scenario: It is expected to have about 8.89 million female in working age group in labor force, which means almost 34.7% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of female (15–64) in labor force will be almost 24.12% of total labor force in 2030 with almost 1.39% of increase of its value in 2014.

Table 4.4 Females in working age group (15–64) in labor force in Egypt 2030 according to the nine scenarios

Scenarios	Females in labor force (15–64) (millions)	% of total labor force (15–64)
Constant/constant scenario	8.89	24.12
Constant/trend scenario	11.85	30.50
Constant/ambitious scenario	17.78	24.12
Trend/constant scenario	8.97	24.08
Trend/trend scenario	11.96	30.45
Trend/ambitious scenario	17.94	24.08
Ambitious/ambitious scenario	17.92	24.09
Ambitious/constant scenario	8.96	24.09
Ambitious/trend scenario	11.94	30.45
Value in 2014	6.6	23.79

Sources: Author's calculation using data from

- (1) Central Agency for Public Mobilization and Statistics (1988)
- (2) Central Agency for Public Mobilization and Statistics (1998)
- (3) Central Agency for Public Mobilization and Statistics (2008)
- (4) Central Agency for Public Mobilization and Statistics (2015)

- (2) Constant/Trend scenario: This scenario assumes that all components of the population growth (fertility, mortality, and migration) will be constant as it were in 2013 till 2030 and the female labor force participation rate will reproduce the trend observed in the last years and continue following the past trend to 2030. According to this scenario: It is expected to have about 11.85 million female in working age group in labor force, which means almost 79.57% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of females in labor force will be almost 30.5% of total labor force in 2030 with almost 28.19% of increase of its value in 2014 (Table 4.4.).
- (3) Constant/Ambitious scenario: This scenario assumes that all components of the population growth (fertility, mortality, and migration) will be constant as it were in 2013 till 2030 and a duplication of the 2014 value of the female labor force participation rate, 24%, to be 48% in 2030. According to this scenario: It is expected to have about 17.78 million female in working age group in labor force, which means almost 169.41% of increase in comparison to the size in 2014, which was almost 6.6 million. That means the percentage of females in labor force will be almost 24.12% of total labor force in 2030 with almost 1.39% of increase of its value in 2014.
- (4) Trend/Constant scenario: Reproduces the trend observed in the last years, it assumes fertility and mortality components will continue following the past trend to 2030 and the migration component will be constant at its level in 2006, where the migration is not significant in the population growth in Egypt as much as the fertility component and that female participation in labor force will be constant of its value in 2014 till 2030. According to this scenario: It is

expected to have about 8.97 million female in working age group in labor force, which means almost 35.94% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of females in labor force will be almost 24.08% of total labor force in 2030 with almost 1.23% of increase of its value in 2014.

- (5) Trend/Trend scenario: Reproduces the trend observed in the last years, it assumes fertility and mortality components will continue following the past trend to 2030 and the migration component will be constant at its level in 2006, where the migration is not significant in the population growth in Egypt as much as the fertility component and the female labor force participation rate will reproduce the trend observed in the last years and continue following the past trend to 2030. According to this scenario: It is expected to have about 11.96 million female in working age group in labor force, which means almost 81.22% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of females in labor force will be almost 30.45% of total labor force in 2030 with almost 28% of increase of its value in 2014.
- (6) Trend/Ambitious scenario: the trend observed in the last years, it assumes fertility and mortality components will continue following the past trend to 2030 and the migration component will be constant as its level in 2006, where the migration is not significant in the population growth in Egypt as much as the fertility component and a duplication of the 2014 value of the female labor force participation rate, 24%, to be 48% in 2030. According to this scenario: It is expected to have about 17.94 million female in working age group in labor force, which means almost 171.88% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of females in labor force will be almost 24.08% of total labor force in 2030 with almost 1.23% of increase of its value in 2014.
- (7) Ambitious/Ambitious scenario: that assumes the fertility component will reach replacement level (2.1 children per women) by 2030 and a duplication of the 2014 value of the female labor force participation rate, 24%, to be 48% in 2030. According to this scenario: It is expected to have about 17.92 million female in working age group in labor force, which means almost 171.47% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of females in labor force will be almost 24.09% of total labor force in 2030 with almost 1.23% of increase of its value in 2014.
- (8) Ambitious/Constant scenario: That assumes the fertility component will reach replacement level (2.1 children per women) by 2030 and that female participation in the labor force will be constant of its value in 2014 till 2030. According to this scenario: It is expected to have about 8.96 million female in working age group in labor force, which means almost 35.73% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of females in labor force will be almost 24.09% of total labor force in 2030 with almost 1.23% of increase of its value in 2014.
- (9) Ambitious/Trend scenario: That assumes the fertility component will reach replacement level (2.1 children per women) by 2030 and the female labor force

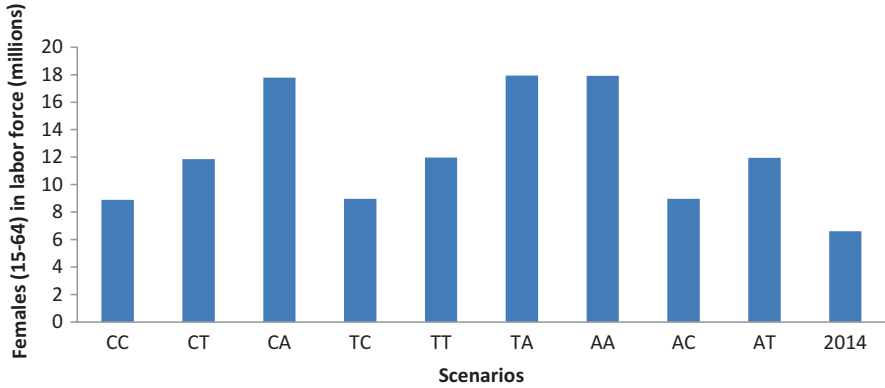


Fig. 4.3 Females in working age group (15–64) in labor force in Egypt 2030 according to the nine scenarios

participation rate will reproduce the trend observed in the last years and continue following the past trend to 2030. According to this scenario: It is expected to have about 11.94 million females in working age group in labor force, which means almost 80.94% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of females in labor force will be almost 30.45% of total labor force in 2030 with almost 28% of increase of its value in 2014 (Fig. 4.3)

Conclusion

In accordance with the United Nations’ agenda for 2030 for sustainable development, namely the fifth goal: “Achieve gender equality and empower all women and girls” (United Nations 2015). It is important to plan the future of women’s economic empowerment for females in Egypt.

This chapter provides a projection of population by sex and age groups of Egypt in 2030 and expected females participation in labor force according to different scenarios.

The combination of the three scenarios for projected female population in the working age group (15–64) and the three scenarios for the projected labor force participation rates for females produced female participation in labor force according to nine scenarios as following:

- (1) Constant/Constant scenario: According to this scenario: It is expected to have about 8.89 million female in working age group in labor force, which means almost 34.7% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of female (15–64) in labor force will be

almost 24.12% of total labor force in 2030 with almost 1.39% of increase of its value in 2014.

- (2) Constant/Trend scenario: According to this scenario: It is expected to have about 11.85 million female in working age group in labor force, which means almost 79.57% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of females in labor force will be almost 30.5% of total labor force in 2030 with almost 28.19% of increase of its value in 2014.
- (3) Constant/Ambitious scenario: According to this scenario: It is expected to have about 17.78 million female in working age group in labor force, which means almost 169.41% of increase in comparison to the size in 2014, which was almost 6.6 million. That means the percentage of female in labor force will be almost 24.12% of total labor force in 2030 with almost 1.39% of increase of its value in 2014.
- (4) Trend/Constant scenario: According to this scenario: It is expected to have about 8.97 million female in working age group in labor force, which means almost 35.94% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of females in labor force will be almost 24.08% of total labor force in 2030 with almost 1.23% of increase of its value in 2014.
- (5) Trend/Trend scenario: According to this scenario: It is expected to have about 11.96 million female in working age group in labor force, which means almost 81.22% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of females in labor force will be almost 30.45% of total labor force in 2030 with almost 28% of increase of its value in 2014.
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- (8) Ambitious/Constant scenario: According to this scenario: It is expected to have about 8.96 million female in working age group in labor force, which means almost 35.73% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of females in labor force will be almost 24.09% of total labor force in 2030 with almost 1.23% of increase of its value in 2014.
- (9) Ambitious/Trend scenario: According to this scenario: It is expected to have about 11.94 million females in working age group in labor force, which means almost

80.94% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of females in labor force will be almost 30.45% of total labor force in 2030 with almost 28% of increase of its value in 2014.

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Chapter 5

Summary and Recommendations to Policy Makers

Introduction

Egyptian women's participation in the labor force has changed through the last three decades. Although the change did not meet the goal, it is good achievement toward Egyptian women's economic empowerment.

The previous four chapters presented the history of women's economic empowerment in the world in general and in Egypt. Previous chapters also presented the past, current and future status of female participation in the labor force in Egypt.

This chapter aims at producing summary and recommendations to policy makers to support in achieving the SDGs regarding women's economic empowerment.

Summary

History of Women's Economic Empowerment

The women's economic empowerment has been in focus of national and international development's agenda.

The United Nations conducted four main international conferences on women empowerment during the period 1975–1995. Then the UN conducted a 5-year, 10-year, 15-year, and 20-year review and appraisal of the implementation of the Beijing Platform for Action. In addition to the world summit in 2000 and the post-2015 development agenda, both included goals that support and promote women's economic empowerment.

The United Nations General Assembly created the UN Women as an entity for Gender Equality and the Empowerment of Women to support inter-governmental bodies, such as the Commission on the Status of Women, in their formulation of

policies, global standards and norms, to help Member States to implement these standards and coordinate the UN system's work on gender equality as well as promote accountability, including through regular monitoring of system-wide progress.

Egypt as a member of the UN has signed many conventions on women's economic empowerment, in addition to a national strategy that promotes women's economic empowerment in 1973, which stated the importance of women's economic empowerment.

Since 1973 till now, many national strategic documents have been issued to promote and support women's economic empowerment in Egypt. In 2015, the Ministry of Planning, Issued the Sustainable Development Strategy: Egypt Vision 2030.

Currently, In accordance with the "Sustainable Development Strategy: Egypt Vision 2030", the National Council for women is preparing new strategy entitled, "Egyptian women's empowerment strategy 2016–2030: Towards a homeland free of discrimination and inequality" to promote women's economic, social and political empowerment at both levels; central and decentralized.

In 2000, National Council for Women was established to improve the human and socio-economic conditions of Egyptian women and to increase the ratio of their participation in the development of their local communities and hence the development of society as a whole and the mission is: To have an effective partnership and role in formulating policies and programs related to women's advancement and the sustainability of their development, as well as defining their active roles which support their participation in bringing about the positive transformation of their society at all levels.

Demographic Profile of Egypt

The Egyptian population size almost doubled during the last three decades, from about 48 million in 1986 to about 91 million in 2016. Female population increased from about 24 million in 1986 to about 45 million in 2016, represented about 49% of total population.

The population distribution by sex and place of residence did not change for males and females during the last three decades, between 1986 and 2016. In 1986, most of the males were living in Lower Egypt region with more than 43% of males in Egypt, and this was the case also in 2016, about 43% of males were living in Lower Egypt. In 1986, most of the females were living in Lower Egypt, about 43% of females in Egypt, and the same percentage in 2016.

Egypt population age and sex composition changed during the last three decades, especially for the population less than 15 years, because of the reduction in the total fertility during the same period from about 5 to 3.5 children per woman.

Regarding the age group (15–59) years, it is noticeable that there was a significant increase between 1986 and 2016, from about 26 million, represented about 54% of total population in 1986 to about 56 million represented about 61% of total

population in 2016. Males and females in the age group (15–59) also increased between 1986 and 2016, the number of males in this age group, increased from about 13 million represented almost 54% of males in 1986 to 28 million represented about 61% of total males in 2016. Females in the same age group, (15–59) years, increased from about 13 million which represented about 55% of total females in 1986 to about 28 million represented about 61% of total females in 2016. This increasing was the result of the decline in fertility, and those births in 1986 are in the age group (30–34) years in 2016.

Regarding the age 60+, it seems to be stable percentages during the same period, and percentage of population aged 60 and above was about 6% of total population in 1986 and 2016. Also, this was the case for males and females in 1986 and 2016.

Fertility is one of the most important demographic variables which contribute to the determination of the rate of population growth. During the past three decades, fertility in Egypt decreased from about 5 children per woman to about 3.5 children per woman.

During the last three decades, the life expectancy at birth in Egypt rose due to a number of factors, including reductions in infant mortality and child mortality. For males, the life expectancy at birth increased from 60.5 years in 1986 to 73.3 years in 2016, and for females, it increased from 63.5 years to 70.5 years during the same period.

Trends in Egyptian Female Participation in Labor Force

Egyptian Female participation in the labor force has been changed during the last three decades, which has consequently contributed in achieving the Egyptian women's economic empowerment.

Gender index for the percentage of females to males in labor force in the age group (15–64) years in Egypt, reveals an increasing from 0.12 in 1986 to 0.32 but, it is still very low, it did not even reach 0.5.

Gender index for the unemployment rate for the age group (15–64) years, was almost the same in 1986 and 2014, (2.7 in 1986 and 2.5 in 2014), which means that there was no improving in the unemployment among females in comparison to males, the gap is still wide.

Gender index for the age specific economic rates for the age group (15–64) years, reveals an improving in the female participation in labor force for all of the economic age groups (15–64) year, even it was not significant improvement, the age group (20–24) year had the highest gender index for 1986 and 2014, (0.24 and 0.46 in 1986 and 2014 respectively). Still, this improvement could not be considered as a significant improvement as it was not equal one for any age group in 1986 and also in 2014.

Community and social services had the majority of employed females aged 15 years old and over in 1986, more than 60% of employed females aged 15 years old and over. In 2014, the economic sector of Agriculture, Hunting, Forestry, and Cutting of wood trees had the majority of employed females, more than 43% of employed females aged 15 years old and over.

In 1986, the majority of employed females were working for the government sector, more than 60% of employed females aged 15 years old and over but, in 2014 the majority of employed females were working for the private sector, almost 61% of employed females aged 15 years old and over.

The accession to the female labor force (15–64) was only between the ages 15 and 24 years, the rate of net accession, n_w^+ , to the female labor force was about 26 per thousand out of labor force and about 13 per thousand out of labor force for age groups (15–19) and (20–24) respectively.

In 2014, the accession to the female labor force (15–64) was between the ages 15 and 29 years, its values reached its peak for the age group (15–19), about 45 per thousand out of labor force.

In 1986, the separation from the labor force due to retirement for females started from the age group (25–29) years, with a very high rate in comparison to males at the same age group, about 28 per thousand in the labor force. For females aged (60–64), the rate reached about 126 per thousand in the labor force.

In 2014, the separation from the labor force due to retirement for females started from the age group (30–34) years, with the rate of 16 per thousand in labor force. For females aged (60–64), the rate reached about 309 per thousand in the labor force.

In 1986, the replacement rate for females in labor force (15–64) was about 25 per thousand in labor force. In 2014, the replacement rate for females in labor force (15–64) was about 18 per thousand in labor force for females.

Future of Egyptian Female Participation in Labor Force

In accordance with the United Nations' agenda for 2030 for sustainable development, namely the fifth goal: "Achieve gender equality and empower all women and girls" (United Nations, 2015). It is important to plan the future of women's economic empowerment for females in Egypt.

This chapter provides a projection of population by sex and age groups of Egypt in 2030 and expected females participation in labor force according to different scenarios.

The combination of the three scenarios for projected female population in the working age group (15–64) and the three scenarios for the projected labor force participation rates for females produced female participation in labor force according to nine scenarios as following:

- (1) Constant/Constant scenario: According to this scenario: It is expected to have about 8.89 million female in working age group in labor force, which means almost 34.7% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of female (15–64) in labor force will be almost 24.12% of total labor force in 2030 with almost 1.39% of increase of its value in 2014.
- (2) Constant/Trend scenario: According to this scenario: It is expected to have about 11.85 million female in working age group in labor force, which means

almost 79.57% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of females in labor force will be almost 30.5% of total labor force in 2030 with almost 28.19% of increase of its value in 2014.

- (3) Constant / Ambitious scenario: According to this scenario: It is expected to have about 17.78 million female in working age group in labor force, which means almost 169.41% of increase in comparison to the size in 2014, which was almost 6.6 million. That means the percentage of females in labor force will be almost 24.12% of total labor force in 2030 with almost 1.39% of increase of its value in 2014.
- (4) Trend/Constant scenario: According to this scenario: It is expected to have about 8.97 million female in working age group in labor force, which means almost 35.94% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of females in labor force will be almost 24.08% of total labor force in 2030 with almost 1.23% of increase of its value in 2014.
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80.94% of increase in comparison to the size in 2014 which was almost 6.6 million. That means the percentage of females in labor force will be almost 30.45% of total labor force in 2030 with almost 28% of increase of its value in 2014.

Recommendations to Policy Makers

- This book produces SOWT analysis of the Egyptian female's economic empowerment including Strengths, opportunities, weakness and threats.
- Examples of strengths and opportunities: in 2030, Egypt will still be benefiting from the opportunity of the demographic window, where proportions of children are projected to decline further in the near-term future, while the size and the proportion of populations in the prime working ages can be expected to grow. The relatively high ratio of working to dependent populations gives the country the possibility of benefitting from a "demographic dividend. Also, the national strategies that support women empowerment: the "Sustainable Development Strategy: Egypt Vision 2030" and Egyptian women's empowerment strategy 2016–2030: Towards a homeland free of discrimination and inequality".
- Cultural and norms, especially in rural areas in Egypt are challenges that face Women's economic empowerment
- Although the contribution of Egyptian women to economic life has increased during the last three decades, it is still necessary to further encourage participation by adopting an independent strategy which must be dedicated to Egyptian women's empowerment, to promote women's economic empowerment.
- the new strategy and its program of actions must take into account the different age group, place of residence and level of educational attainment as following:
- Women in the working age group (15–64) years, who will be the target population of the strategy need to be divided into subgroups, and each age group needs specific programs of action.
- Women in Egypt are distributed among rural and urban areas. Each area needs specific programs that differ from the other.
- Women with different level of educational attainments need different program of action
- In addition to the dedicated strategy on women's economic empowerment, it is proposed to develop a set of programs to address the male community, whether father, brother or husband, to acquaint them with the importance of women's work and to have an independent income.
- It is important to dedicate a day to celebrate the Egyptian working woman.
- It is recommended to add the importance of women's labor force participation to the school curriculum