POPULATION BULLETIN

Vol. 62, No. 2 June 2007

A PUBLICATION OF THE POPULATION REFERENCE BUREAU

Challenges and Opportunities—The Population of the Middle East and North Africa

by Farzaneh Roudi-Fahimi and Mary Mederios Kent

- The Middle East and North Africa is undergoing major changes in marriage patterns and childbearing.
- The region is experiencing a youth bulge that requires new educational and job opportunities.
- The Middle East and North Africa includes major migrant sending and destination countries—and at least 5 million refugees.

PRB
POPULATION REFERENCE BUREAU

Population Reference Bureau (PRB)

The Population Reference Bureau **informs** people around the world about population, health, and the environment, and **empowers** them to use that information to **advance** the well-being of current and future generations.

Officers

Francis L. Price, Chair of the Board
President and Chief Executive Officer, Q3 Stamped Metal, Inc. and Q3 JMC Inc., Columbus, Ohio
Terry D. Peigh, Vice Chair of the Board
Senior Vice President, Managing Director, The Interpublic Group of Companies, New York
William P. Butz, President and Chief Executive Officer
Population Reference Bureau, Washington, D.C.
Faith Mitchell, Secretary of the Board
Senior Program Officer, Board on Health Sciences Policy, Institute of Medicine, The National Academies, Washington, D.C.
Richard F. Hokenson, Treasurer of the Board
Director, Hokenson and Company, Lawrenceville, New Jersey

Trustees

George Alleyne, Director Emeritus, Pan American Health Organization/World Health Organization, Washington, D.C.
Wendy Baldwin, Director, Poverty, Gender, and Youth Program, The Population Council, New York
Joel E. Cohen, Abby Rockefeller Mauzé Professor of Populations, Rockefeller University and Head, Laboratory of Populations, Rockefeller and Columbia Universities, New York
James H. Johnson Jr., William Rand Kenan Jr. Distinguished Professor and Director, Urban Investment Strategies Center, University of North Carolina, Chapel Hill
Wolfgang Lutz, Professor and Leader, World Population Project, International Institute for Applied Systems Analysis and Director, Vienna Institute of Demography of the Austrian Academy of Sciences, Vienna, Austria
Elizabeth Maguire, President and Chief Executive Officer, Ipas, Chapel Hill, North Carolina
Gary B. Schermerhorn, Managing Director of Technology, Goldman, Sachs & Company, New York
Leela Visaria, Independent Researcher, Ahmedabad, India

Editor: Mary Mederios Kent
Associate Editor: Sandra Yin
Design and Production: Jon Howard

The *Population Bulletin* is published four times a year and distributed to members of the Population Reference Bureau. *Population Bulletins* are also available for $7 each (discounts for bulk orders). To become a PRB member or to order PRB materials, contact PRB, 1875 Connecticut Ave., NW, Suite 520, Washington, DC 20009-5728; Tel.: 800-877-9881; Fax: 202-328-3937; E-mail: popref@prb.org; Website: www.prb.org.

The suggested citation, if you quote from this publication, is: Farzaneh Roudi-Fahimi and Mary Mederios Kent, "Challenges and Opportunities—The Population of the Middle East and North Africa," *Population Bulletin* 62, no. 2 (Washington, DC: Population Reference Bureau, 2007). For permission to reproduce portions from the *Population Bulletin*, write to PRB, Attn: Permissions; or e-mail: permissions@prb.org.

Photos courtesy of Photoshare. (left to right): © 2000 Mohsen Allam; © 2000 Ammar Keylani; © 1991 CCP.

© 2007 Population Reference Bureau. All rights reserved.
ISSN 0032-468X

♻ Printed on recycled paper

Population
BULLETIN
Vol. 62, No. 2 June 2007
A PUBLICATION OF THE POPULATION REFERENCE BUREAU

Challenges and Opportunities—The Population of the Middle East and North Africa

About the Authors

Farzaneh Roudi-Fahimi is director of the Population Reference Bureau's Middle East and North Africa (MENA) Program, which began in 2001 with support from the Ford Foundation office in Cairo. A native of Iran, she has lectured on Middle East population issues at the World Bank, academic institutions, and international and regional conferences. She has authored a number of reports and articles on MENA population issues, often in collaboration with experts at other nongovernmental organizations. Ms. Roudi earned a master's degree in demography from Georgetown University, with additional graduate study in demography at the University of California at Berkeley.

Mary Mederios Kent is the editor of the *Population Bulletin* series. She is an editor and demographer and has written and edited numerous publications on population and health-related issues. She holds a master's degree in demography from Georgetown University.

This publication draws on a large body of work by Ms. Roudi-Fahimi and her colleagues on population and health issues in the MENA region, in particular, the policy briefs listed on page 20. At PRB, Lori S. Ashford, technical director of policy information, and Richard Skolnik, director of international programs, provided valuable comments on this publication. PRB intern Kate Epting assisted with editing and creating tables.

© 2007 by the Population Reference Bureau

Challenges and Opportunities—The Population of the Middle East and North Africa

by Farzaneh Roudi-Fahimi and Mary Mederios Kent

The countries of the Middle East and North Africa (MENA) continue to fascinate and concern the rest of the world. With two-thirds of the world's known petroleum reserves, the region's economic and political importance far outweighs its population size. It has the world's second-fastest growing population, after sub-Saharan Africa. Its demographic trends—especially the rapidly growing youth population—are complicating the region's capacity to adapt to social change, economic strains, and sometimes wrenching political transformations.

The people of the Middle East and North Africa have long played an integral, if sometimes volatile, role in the history of human civilization. Three of the world's major religions originated in the region—Judaism, Christianity, and Islam. MENA contains some of the world's oldest cities; universities existed here long before they emerged in Europe. Today, the population is overwhelmingly Islamic, yet includes substantial Jewish and Christian minorities. And, while Arabic is the predominant language, two of the region's largest countries—Iran and Turkey—and Israel, are not Arabic-speaking.

Thanks to rapidly declining death rates and slowly declining fertility rates, MENA's population size quadrupled in the last half of the 20th century. It stands at about 430 million in 2007. Despite recent fertility declines, MENA's population is projected to surpass 700 million by 2050.

One consequence of the region's recent demographic trends is an increasingly notable youth bulge. One in every three people living in the region is between ages 10 and 24. This young population provides momentum for continued population growth in the region, despite declining fertility.

This large crop of young people also needs jobs and training—in a region currently plagued by high unemployment. While the youth bulge offers a potential demographic dividend—a temporary surge in the proportion of working-age adults in the population that can boost economic growth—there are many obstacles

Courtesy of Photoshare. (left to right); © 2000 Mohsen Allam; © 2000 Ammar Keylani; © 1991 CCP.

Recent trends in fertility, mortality, and migration are transforming the population of the Middle East and North Africa.

to reaping this windfall. High unemployment, a mismatch of jobs and skill levels, extensive government entitlements, and political instability are among the factors that have made it difficult for the young MENA population to spur economic growth. In addition, citizens must compete with foreigners for jobs in some Persian Gulf countries where one-half or more of the labor force consists of foreign workers.

Whether this large group of young people become healthy and productive members of their societies will depend on how well governments and civil societies invest in social, economic, and political institutions that meet their needs. The fastest growth in the youth population will be in places that are the least prepared economically: Iraq, the Palestinian Territory, and Yemen.

Population growth has also exacerbated natural resource constraints in the region. Most MENA countries already are designated as water scarce because they fall below the international threshold of 1,000 cubic meters of freshwater per capita per year. Environmental factors threaten the region's continued economic development and the well-being of the population. Water

scarcity can potentially lead to conflicts both among countries and among population groups within a country, adding to the political instability of the region.

What Defines the Middle East and North Africa?

There is no standard definition of the Middle East.[1] The term was used by the British in the late 19th century to refer to the Persian Gulf region. By 1950, the Middle East included not only Iran, Israel, and the Arab states of Western Asia, but also Cyprus, Egypt, and Turkey. The boundaries are sometimes stretched eastward to take in Afghanistan and westward as far as Morocco.

The area covered in this *Population Bulletin* includes 20 countries in Western Asia and North Africa (see Figure 1). The boundaries are defined by geography rather than religion, ethnicity, or other socioeconomic characteristics. Thus, the Middle East and North Africa (MENA) includes the non-Arab countries of Iran, Israel, and Turkey. MENA countries fall into three general subregions: North Africa, Western Asia, and the Arabian Peninsula. These subregions do not correspond exactly to the United Nations (UN) regions with the same names.

The majority of the region's population lives in the MENA Western Asian countries, particularly Iran, Iraq, Syria, and Turkey (see Table 1). The Western Asian countries are highly culturally and religiously diverse.

While Arabs are overwhelmingly Muslim in most of the region, there are exceptions. About one-fourth of Lebanon's population is made up of Arab Christians. Sunni Muslims are the majority in the region, with Shia Muslims a majority in Iran and Iraq. About 20 percent of Israel's population is Arab, and they are overwhelmingly Muslim.

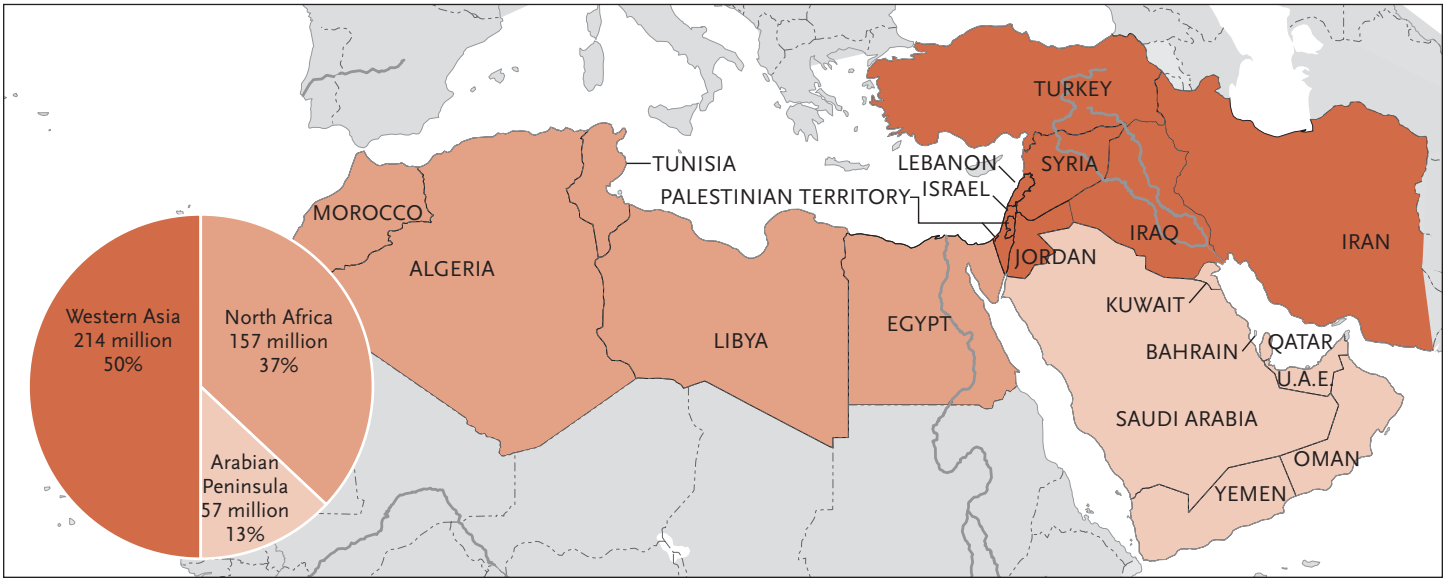
The countries on the Arabian Peninsula have small populations, which nevertheless grew rapidly between the 1950s and 2007, and are projected to continue to grow rapidly over the next 50 years. These countries included about 59 million people in 2007, with 80 percent living in Saudi Arabia and Yemen. All the Arabian Peninsula countries except Yemen border on the Persian Gulf.

North Africa is also predominately Arab and Islamic and is dominated demographically by the region's largest country, Egypt. Indeed, one of every four Arabs lives in Egypt.

Establishing National Boundaries

Political and religious movements, as well as natural resources, have shaped the modern Middle East. Much of the region was part of the Roman and then Byzantine Empires until the 7th century, when Islam was introduced. Islam eventually forged a common cultural and religious bond throughout the region. The Islamic, but non-Arab, Turks ruled much of the area between the 13th century until the early 20th century.

Figure 1
Population in the Middle East and North Africa, 2007



Some of the country boundaries shown are undetermined or in dispute.

Source: UN Population Division, *World Population Prospects: The 2006 Revision* (2007; http://esa.un.org, accessed April 7, 2007).

The boundaries of most modern MENA nations date from the collapse of the Ottoman Empire after World War I. Former Ottoman territories were carved into many small states, with sometimes arbitrary national boundaries and often under the hegemony of western nations. In 1920, the League of Nations awarded France control of Lebanon and Syria, and the United Kingdom control of Iraq and Palestine. Jordan was created from the slice of Palestine east of the Jordan River. The northern African countries were under largely French or Italian control in the early 20th century, and only became independent nations in the 1950s or 1960s.

Bitter boundary disputes have plagued the region for most of the past century. The most virulent and far-reaching began in the 1940s when the Jewish state of Israel was created within the former British protectorate of Palestine. Many neighboring countries have never recognized Israel, and the discord has sparked several wars and ongoing civil conflicts. In North Africa, Algeria endured a protracted war before it gained independence from France in 1962. In contrast, the union of the Yemen Arab Republic and the Democratic Republic of Yemen in 1990 went remarkably smoothly after the collapse of the Soviet Union, but civil strife and violence continue to take lives and disrupt the economies in parts of the region.

Population Growth and Change

Much of the Middle East and North Africa was sparsely populated for hundreds of years, with population totals fluctuating because of spikes in mortality caused by plagues, droughts, or other disasters. As in much of the world, the 20th century brought accelerating population growth to MENA. The population total reached 104 million by 1950—and then quadrupled, to more than 400 million, by 2000. In 2007, the total stood at 432 million. The latest population projections for the region show the total reaching nearly 700 million by 2050 (see Figure 2).

Improvements in human survival, particularly during the second half of the 20th century, sparked the rapid population growth in MENA and other less developed regions. The introduction of modern medical services and public health interventions, such as antibiotics, immunization, and sanitation, caused death rates to plummet in the developing world after 1950. The MENA region's fertility remained relatively high, producing high rates of natural increase (the surplus of births over deaths). Spurred by high fertility and declining mortality, MENA's annual population growth peaked at 3 percent around 1980, more than a decade

Table 1

Population Size and Growth in the Countries of the Middle East and North Africa: 1950, 2007, and 2050

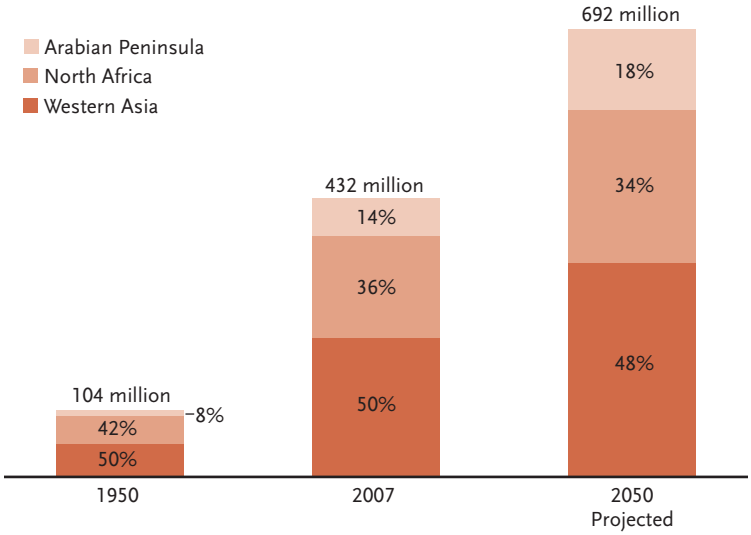
Country and region	Population in thousands			Ratio of population	
	1950	2007	2050*	2007/ 1950	2050/ 2007
Middle East and North Africa (MENA)	**103,886**	**431,587**	**692,299**	**4.2**	**1.6**
MENA–Western Asia	**51,452**	**215,976**	**332,081**	**4.2**	**1.5**
Iran	16,913	71,208	100,174	4.2	1.4
Iraq	5,340	28,993	61,942	5.4	2.1
Israel	1,258	6,928	10,527	5.5	1.5
Jordan	472	5,924	10,121	12.5	1.7
Lebanon	1,443	4,099	5,221	2.8	1.3
Palestinian Territory	1,005	4,017	10,265	4.0	2.6
Syria	3,536	19,929	34,887	5.6	1.8
Turkey	21,484	74,877	98,946	3.5	1.3
Arabian Peninsula	**8,336**	**58,544**	**123,946**	**7.0**	**2.1**
Bahrain	116	753	1,173	6.5	1.6
Kuwait	152	2,851	5,240	18.7	1.8
Oman	456	2,595	4,639	5.7	1.8
Qatar	25	841	1,333	33.6	1.6
Saudi Arabia	3,201	24,735	45,030	7.7	1.8
United Arab Emirates	70	4,380	8,521	62.9	1.9
Yemen	4,316	22,389	58,009	5.2	2.6
Northern Africa	**44,099**	**157,068**	**236,272**	**3.6**	**1.5**
Algeria	8,753	33,858	49,610	3.9	1.5
Egypt	21,834	75,498	121,219	3.5	1.6
Morocco	8,953	31,224	42,583	3.5	1.4
Libya	1,029	6,160	9,683	6.0	1.6
Tunisia	3,530	10,327	13,178	2.9	1.3

* Projected

Source: UN Population Division, *World Population Prospects: The 2006 Revision* (2007; http://esa.un.org/, accessed April 10, 2007): table A.2.

Figure 2

Population Growth in the MENA Regions: 1950, 2007, and 2050



MENA: Middle East and North Africa

Source: UN Population Division, *World Population Prospects: The 2006 Revision* (2007; http://esa.un.org, accessed April 7, 2007).

after the world's population growth rate reached its high point, at 2 percent annually.[2]

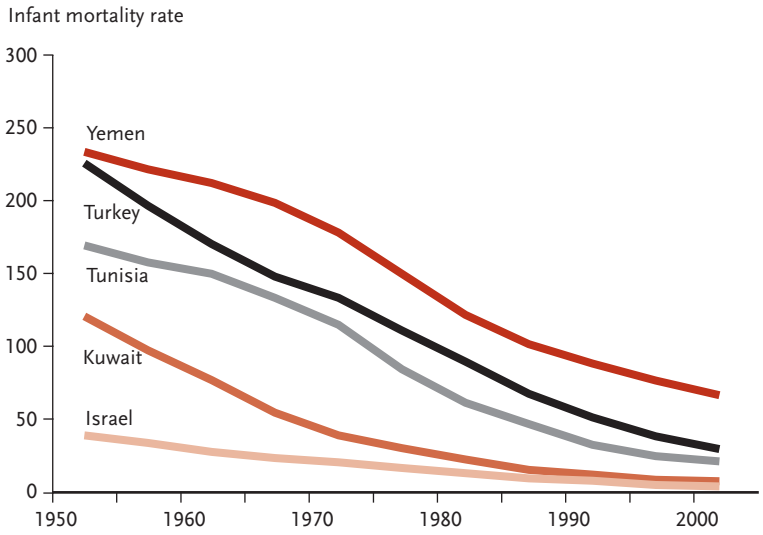
The "demographic transition" from high mortality and fertility to low mortality and fertility tends to occur in stages: declining mortality followed by declining fertility and, finally, relatively stable birth and death rates at low levels. This transition is well underway throughout the region, but it has proceeded at very different rates in different countries.[3]

Immigration has also played an important role in population change in some parts of the region over the last half-century. Economic expansion following the jump in oil revenues in the 1970s attracted millions of foreign workers, especially to the Arabian Peninsula. Millions have also moved from "labor-rich," non-oil-producing countries to seek jobs in the oil-rich countries within the region. A stream of migration out of the region—especially from North Africa and Turkey to Europe—is also creating large Arab and Muslim communities in some developed countries.

Mortality Decline Continues

The declines in mortality that occurred in the past 50 years in the developing world especially benefited infants and young children. In MENA, infant mortality (infants dying before their first birthdays) dropped from close to 200 deaths per 1,000 live births in the early 1950s to around 30 deaths per 1,000 live births in the early 21st century. Countries throughout the region saw great improvement in infant mortality, but the decline was especially steep in some, such as Yemen and Turkey (see Figure 3).

Figure 3
Patterns of Decline in Infant Mortality, Selected Countries in the Middle East and North Africa, 1950–2005



Note: The infant mortality rate is the number of deaths of infants under age 1 per 1,000 live births.

Source: UN Population Division, *World Population Prospects: The 2006 Revision* (2007: http://esa.un.org/, accessed April 10, 2007).

But the regional average remains above that of Latin America and East Asia, and the wide range in national rates signals disparities in health services and living standards within the region. Large differences in maternal mortality and life expectancy at birth among the MENA countries add evidence of unequal access to basic health education and services.

In recent years, infant mortality rates in some oil-rich Persian Gulf states have been quite low—less than 10 infant deaths per 1,000 births around 2005—but the rates ranged up to 40 in Morocco and 75 in Yemen. Likewise, maternal mortality ratios are extremely high—above 200 maternal deaths per 100,000 births—in Morocco and Yemen, but they were less than 8 in Kuwait and Qatar (see Table 2). The average for industrialized countries in 2000 was 17.[4]

Both infant and maternal mortality drop quickly when mothers have access to medical care and emergency obstetric services during childbirth. The public health system developed in Iran provides an example of how governments can engage the community and improve health services even in rural areas (see Box 1).

Life expectancy at birth also varies throughout the region, although the regional averages exceeded the world average of 67 years in 2006. The more developed and wealthier MENA countries enjoy average life expectancy equal to that in many developed countries. Around 2005, Israelis lived 80 years on average, and Kuwaitis and Emiratis lived 77 years—about the same as the averages for the United States (78) and Denmark (80). On the lower end, life expectancy was 60 years in Yemen. As infant and child mortality decline, average life expectancies are expected to rise.

While maternal mortality rates remain high by international standards, many countries have made considerable progress. Egypt, for example, dramatically lowered a woman's lifetime risk of dying from pregnancy or childbirth from one in 120 to one in 250 during the 1990s. Now considered a successful model for the region, Egypt achieved this improvement through a comprehensive and coordinated approach to improving the health of expectant mothers. The health ministry, along with national and international health groups, analyzed the specific factors contributing to poor maternal health in Egyptian communities and took definitive steps to address those causes.[5]

Egypt's government is also seeking to increase the use of contraception to help bolster child and maternal

Box 1

Iran's Rural Health Care Network

Iran's rural health care network is the cornerstone of the country's health care system. The network evolved from a series of pilot projects conducted in the early 1970s to find the best system for expanding medical and health services for Iran's widely dispersed rural population. These projects led to the establishment of rural "health houses," based on the idea that vaccine-preventable diseases, acute respiratory infections, and diarrheal diseases can be addressed by making simple technology and information available to even minimally trained personnel. Mobile clinics bring health services to people living in remote areas.

There are now more than 16,000 health houses in Iran, covering around 95 percent of the rural population. Each health house serves around 1,500 people, usually including people from the central village where the health house is located and satellite villages within an hour's walk. Each health house generally has two health providers (in principle, one man and one woman), known as *behvarz*, who receive two years of training. The female *behvarz* is in charge of maternal and child health care, and the male is responsible for issues related to environmental health, such as water and food safety. A *behvarz* must be a local resident, which is particularly important for a female *behvarz* because she can continue to live in her home village.

One of the first tasks of a *behvarz* team is to take a population census of the villages to be served by their health house. The census is repeated at the beginning of each Iranian calendar year (March 21), and the age and sex profiles of each village are put in charts. Monthly summary tables of these data are posted on the wall of each health house. The charts can show the number of children who have been born since the beginning of the year, the proportion who have been vaccinated, and the number who died, by cause of death. The data also show the number of married women of reproductive age and their contraceptive prevalence rate by method. A *behvarz* is proactive—comfortable knocking on people's doors to talk about families' health care needs, including family planning, and to schedule appointments to visit the health house.

Reference

Farzaneh Roudi-Fahimi, *Iran's Family Planning Program: Responding to a Nation's Needs* (Washington, DC: Population Reference Bureau, 2002): 4.

health, as well as to lower fertility and slow population growth.[6] A wealth of research shows that mothers who wait until their 20s to have children, space their pregnancies at least two or three years apart, and avoid pregnancies after age 35 have healthier children and enjoy better individual health.[7] The increased use of family planning, better maternal and child health, and lower fertility tend to go hand-in-hand.

Table 2

Mortality Indicators in the Countries of the Middle East and North Africa, Around 2005

Country and region	Infant mortality rate	Maternal mortality ratio	Life expectancy at birth (years)
Middle East and North Africa	**31**	**207**	**71**
MENA–Western Asia	**27**	**104**	**71**
Iran	32	76	70
Iraq	34	250	—
Israel	4	17	80
Jordan	24	41	72
Lebanon	17	150	72
Palestinian Territory	21	100	72
Syria	18	160	73
Turkey	25	70	71
Arabian Peninsula	**40**	**236**	**68**
Bahrain	10	28	74
Kuwait	10	5	77
Oman	10	87	74
Qatar	9	7	73
Saudi Arabia	23	23	72
United Arab Emirates	9	54	77
Yemen	75	570	60
North Africa	**33**	**126**	**71**
Algeria	30	140	75
Egypt	33	84	70
Libya	26	97	76
Morocco	40	220	70
Tunisia	21	120	73

— Not available.

Infant mortality rate: The number of deaths of infants under age 1 per 1,000 live births. Maternal mortality ratio: The number of women dying as a result of pregnancy or childbirth per 100,000 live births. The most recent estimates are for 2000.

Sources: C. Haub, *2006 World Population Data Sheet* (www.prb.org, accessed May 1, 2007); UNICEF, UN Population Fund, and World Health Organization, *Maternal Mortality 2000* (2003; www.who.int, accessed May 14, 2007); and UNICEF, *Statistics: Multiple Indicator Cluster Survey 3, Survey Reports: Iraq* (www.childinfo.org, accessed May 15, 2007).

Declining Fertility

The burst of population growth in MENA in the late 20th century was dampened as fertility began to decline in more countries in the region. MENA's total fertility rate (TFR), or average number of children born per woman given current birth rates, declined from about seven children in 1960 to three in 2006.[8] MENA countries followed very different paths to lower fertility. The decline started first in Lebanon, then in a few other countries including Egypt, Iran, and Tunisia. These last three countries were among the first to adopt policies to lower fertility as a way to slow population growth.[9]

By the early 2000s, the TFR was below 4.0 in all but four of the 20 countries in the region: Iraq, Saudi Arabia, the Palestinian Territory, and Yemen (see Table 3).

Table 3
Fertility and Contraceptive Use in the Middle East and North Africa, Around 2005

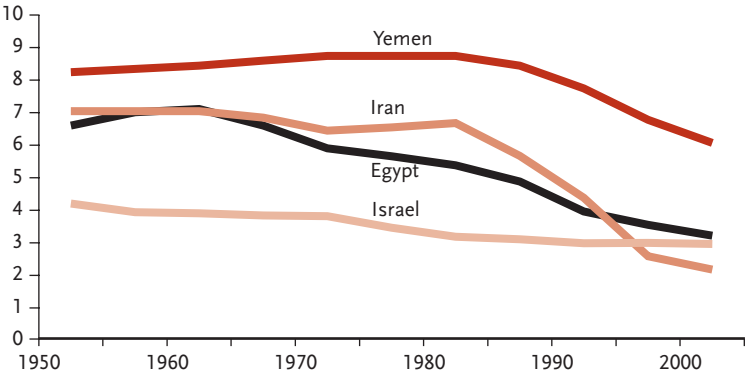
Country and region	Total fertility rate	Percent of married women using contraception	
		Any method	Modern method
Middle East and North Africa (MENA)	**3.0**	**58**	**45**
MENA-Western Asia	**2.7**	**66**	**45**
Iran	2.0	74	56
Iraq	4.8	50	33
Israel	2.8	—	—
Jordan	3.7	56	41
Lebanon	1.9	58	34
Palestinian Territory	4.6	50	39
Syria	3.5	47	35
Turkey	2.2	71	43
Arabian Peninsula	**4.8**	**29**	**22**
Bahrain	2.6	*65*	—
Kuwait	2.4	*52*	*39*
Oman	3.4	*24*	*18*
Qatar	2.8	*43*	*32*
Saudi Arabia	4.5	*32*	*29*
United Arab Emirates	2.2	*28*	*24*
Yemen	6.2	23	13
Northern Africa	**2.8**	**59**	**54**
Algeria	2.4	57	52
Egypt	3.1	59	57
Libya	3.4	*49*	*26*
Morocco	2.5	63	55
Tunisia	2.0	63	53

—Not available.

Note: The total fertility rate is the total number of births a woman would have given current birth rates. The contraceptive use percentages refer to married women of childbearing age (ages 15-49). Numbers in italics refer to estimates prior to 2000.

Sources: C. Haub, *2006 World Population Data Sheet* (www.prb.org, accessed May 1, 2007); UNICEF, *Statistics: Multiple Indicator Cluster Survey 3, Survey Reports: OPT and Iraq* (www.childinfo.org, accessed May 15, 2007); and League of Arab States, PAPFAM Version 3.0 (CD-ROM, 2007).

Figure 4
Patterns of Fertility Decline in Selected Countries in the Middle East and North Africa, 1950–2005



Note: The total fertility rate refers to the average number of children born per woman given current birth rates.

Source: UN Population Division, *World Population Prospects: The 2006 Revision* (2007; http://esa.un.org/, accessed April 10, 2007).

In Iran, Lebanon, Tunisia, and Turkey, fertility was at or below the replacement level of about 2.1 children per woman. Yemen's TFR has edged downward, but remains the region's highest at 6.2 in 2005. Israel's TFR was the region's lowest in the 1950s, but has not declined as far as in many other countries (see Figure 4).

Importance of Families

Strong cultural values attached to the family and traditional marriage and childbearing practices delayed the transition to lower fertility in MENA. The family is the center of life in MENA's culture. Families provide social security for the elderly, sick, or disabled, and an economic refuge for financially dependent relatives.[10]

Accordingly, universal marriage and large families were highly valued in MENA. Muslim migrants from MENA countries often bring these family norms to their new homes. Muslims in France and Germany have somewhat higher fertility rates than non-Muslim French and Germans.[11] Within Israel, Muslim women had 4.0 children on average in 2005, compared with 2.7 for Jewish women, and 2.2 for Christian women.[12]

These cultural factors helped delay the transition to lower fertility in MENA, even as the region was developing economically. But several changes in recent decades hastened the decline in fertility: delayed marriage, wider acceptance of and access to family planning services, and increased education of girls and young women. In some countries, the laws that have restricted women's rights and participation in the wider society are being relaxed (see Box 2). Some observers have noted that these fundamental changes demonstrate that Islam is not itself a barrier to fertility decline or improved status of women as many had assumed, but that the high fertility that persisted in the region for so long reflected a constellation of social and economic as well as religious factors.[13]

Waiting Longer to Marry

Marriage is an important turning point in a young woman's life in MENA. Marriage and childbearing define life for nearly all women in the MENA region. Until the last few decades, women throughout the region typically married while still in their teens or early 20s (see Box 3, page 10). The universal value placed on marriage, compounded by religious and social condemnation of premarital and extramarital sexual relationships, encouraged girls to marry young and to bear children soon thereafter. Only rarely did women remain single and childless.

MENA's fertility decline is linked to a transformation in these marriage patterns: Women are waiting until

Box 2

Improving Women's Rights: Morocco's New Family Code

A strong body of research shows that the Middle East/North Africa region will not fully develop economically unless women play a larger role in the economy and society. Despite their impressive gains in education and health, women in MENA still face gender discrimination that prevents them from reaching their potential.

To varying degrees across MENA countries, discrimination against women is built into the culture, government policies, and legal frameworks. In particular, the region's family laws codify discrimination against women and girls, placing them in a subordinate position to men within the family, a position that is then replicated in the economy and society.

Except for Tunisia and Turkey, family laws in Muslim MENA countries are drawn from *Sharia*, or Islamic law. The traditional reading of Islamic law essentially places women under the guardianship of their fathers, husbands, or another male relative. Young women need their guardians' consent to marry, and women have limited rights regarding divorce, child custody, and inheritance.

But a growing number of male and female Islamic scholars have been studying religious teachings to justify equal treatment for men and women, and fight discrimination. Inspired by international human rights conventions, MENA women activists and their supporters are now looking to the *Qur'an* and the *Sunnah* (the sayings and deeds of the Prophet Mohammad and his Companions) to develop new interpretations of family law. These activists believe that Islam is at heart egalitarian, and that parts of the *Sharia* codified in family laws were interpretations by men whose views were rooted in the patriarchal traditions of former times.

This movement is expanding, as women's organizations in more countries work to improve women's rights and opportunities. One success story comes from Morocco, where reform of the family code, or *mudawana*, was endorsed by King Muhammad VI as consistent with the spirit of the *Sharia*, and passed by the Parliament in 2004.

The new code—the result of a decade of effort—has been heralded as not only a giant leap in women's rights, but also a huge advance in children's rights. The reforms reflect a new path between traditionalists and women's rights activists, and the political commitment of political leaders.

Some features of the new Moroccan family law include:

- Husband and wife share joint responsibility for the family.
- The wife is no longer legally obliged to obey her husband.
- The adult woman is entitled to self-guardianship and may exercise it freely and independently.
- The right to divorce is a prerogative of both men and women, exercised under judicial supervision.
- The principle of divorce by mutual consent is established.
- The woman has the right to impose a condition in the marriage contract requiring that her husband refrain from taking other wives.
- Polygamy is subject to a judge's authorization and to stringent legal conditions (full disclosure about current wives and no objection from the first wife) that make the practice nearly impossible.
- A divorced mother is given the possibility of retaining custody of her children even upon remarrying or moving out of the area where her ex-husband lives.
- The child's right to acknowledgment of paternity is protected in cases in which the marriage has not been officially registered.
- The minimum legal age for marriage is 18 for both men and women.

Reference

Valentine M. Moghadam and Farzaneh Roudi-Fahimi, *Reforming Family Laws to Promote Progress in the Middle East and North Africa* (Washington, DC: Population Reference Bureau, 2005).

they are older to marry and are marrying men closer to their own age. And, couples want fewer children.

The age at marriage in the region is rapidly changing. While the average age at first marriage for women was between 18 and 21 in most countries in the 1970s, it was between 22 and 25 by the late 1990s. North African countries saw an especially steep increase in marriage age. In Libya, the average rose from age 19 to age 29 between the mid-1970 and late 1990s. The average marriage was above age 25 in all the North African countries except for Egypt, where it was just 22 in 1998. In high-fertility Yemen, the average age at marriage was about 21 in 1998.[14]

Another remarkable shift in marriage patterns is the increase in number of women who are not married by the time they reach their late 30s, many of whom will never marry. Lebanon stands out, with one-fifth of women ages 35 to 39 still unmarried. The proportion of women remaining single into their late 30s was also high—between one-sixth and one-seventh in the North African countries, except for Egypt. In Egypt, just three out of 100 women were still unmarried by ages 35 to 39. Likewise, less than 5 percent of women stayed single into their late 30s in most of the Arabian Peninsula countries.[15]

The delay in marriage also reflects rising economic aspirations for young people, including a trend toward more couples living on their own. The costs of getting married have been increasing in some countries. But the marriage delay also marks a broader shift in women's role in MENA society. Women who marry while still in their teens typically are more socially isolated, know less about family planning and reproductive health services, and often lack the power to make decisions about their own health, especially if their husbands are much older. Early marriage is associated with high fertility because—in addition to lower family planning use—a young bride is at risk of pregnancy for

Box 3
Kin Marriages and Polygamy

The MENA region is undergoing what some demographers have called a "marriage revolution." Just a few decades ago, young women married while in their teenage years. They now wait until their 20s—even their late 20s—to get married. They marry men closer to their own age than in past generations. But many young people in MENA countries are clinging to the tradition of marrying a relative—especially a cousin.[1] The tradition likely arose as a way to help extended families consolidate and protect land and other assets. It also reflects the family's influence in a young woman's choice of a spouse.

In recent years, one-quarter to one-third of marriages within most MENA countries were between first cousins or other relatives. In 2003, 27 percent of Moroccan women ages 15 to 49 were married to blood relatives, with the percentage higher in rural than in urban areas. A 2001 survey in Syria revealed that 40 percent of ever-married women in this age group were married to a close relative; 47 percent of women in rural areas.[2]

Polygamy—although much less common—also persists in the region. Under Islamic law and custom, a man is allowed to take up to four wives, assuming that he can provide for and treat them equally. It is legal in the region except in Turkey (since 1926) and Tunisia (since 1956).[3] Less than 5 percent of women in most countries were reportedly in polygamous unions in the late 1990s and early 2000s, with higher percentages in some Arabian Peninsula countries. About 6 percent of ever-married women in Yemen(ages 15 to 49) reported they were in polygamous unions in 2003, 5 percent in Syria in 2001, and just 2 percent of women Lebanon in 2004.

This mix of traditional practices with fertility decline, delayed marriage, and greater educational gains for women are among the paradoxes of the MENA region in the early 2000s.

References

1. Dominique Tabutin and Bruno Schoumaker, "The Demography of the Arab World and the Middle East From the 1950s to the 2000s," *Population-E* 60, nos. 5-6 (2005): 528-29; and Hoda Rashad, Magued Osman, and Farzaneh Roudi-Fahimi, *Marriage in the Arab World* (Washington, DC: Population Reference Bureau 2005): 3, accessed online at www.prb.org, on April 7, 2007.
2. League of Arab States, *Pan-Arab Project for Family Health (PAPFAM)* (CD-ROM, Version 3.0, 2007).
3. Tabutin and Schoumaker, "The Demography of the Arab World and the Middle East": 527.

more years than women marrying at an older age.[16] The rising marriage age, then, has helped lower fertility in the region, along with other changes in the status of women.

Women's Educational Gains

In conjunction with the rising marriage age, girls in MENA are completing more years of school. They enroll in primary school at about the same rate as boys, and an increasing number of young women are entering universities, in some countries even outnumbering male students.

Girls who are illiterate or have little schooling generally come from poor communities and tend to marry and begin childbearing at a young age. Early marriage cuts short girls' formal education and often traps them in a vicious cycle of low education, high fertility, and poverty.

Programs that keep disadvantaged girls in school, or promote their return to school, and teach them literacy and life skills are important for reducing girls' social isolation and promoting broader social and economic development. Community-based strategies are needed to engage local authorities, religious leaders, and families to help remove barriers to girls' education and participation in community activities. A small number of such pilot projects with successful results have been developed in MENA countries with large rural populations.[17]

Increasing Use of Contraception

Rising educational levels and expanding family planning services have contributed to increased use of contraceptive methods in the MENA region. Although Islam does not prohibit family planning, young brides traditionally want or are pressured to produce a child soon after marrying; they are unlikely to use a contraceptive method until they have at least one child.

In the four North African countries, plus Iran and Turkey, at least one-quarter of the wives of reproductive age used a contraceptive method by the late 1980s. In most other countries in the region, this percentage ranged between 4 percent and 10 percent. The rates were exceptionally low in Yemen (1 percent in 1979) and Oman (8 percent in 1988).[18]

The 1990s saw a veritable contraceptive revolution in North Africa and Iran, as contraceptive use rose rapidly. More than one-half of the married women of reproductive age now use modern contraceptives in these countries.

The percentage of married women using modern family planning is lowest in several countries on the Arabian Peninsula (see Table 3, page 8), where less than one-fourth of women of reproductive age used a modern contraceptive method according to the most recent data. Outside the peninsula, rates have also remained low in Iraq and Libya.

Box 4
Family Planning and Islam

The topic of family planning and contraceptive use has been studied extensively by Islamic scholars, and a majority of jurists believe that family planning is permissible within the teachings of the religion. They have generally argued that Islam is a religion of moderation. In fact, everything is lawful unless explicitly designated otherwise in the *Qur'an* or in the Prophet's tradition. The *Qur'an* does not prohibit birth control or the spacing of pregnancies. The silence on the topic of contraception is not an omission by God, these jurists argue, because God is "all-knowing," and Islam is understood to be timeless. Also, coitus interruptus, or withdrawal, was an acknowledged method during the time of Islam's founder, the Prophet Muhammad. The majority of theologians from almost all of the various schools of Islamic jurisprudence agree that withdrawal is permissible with a wife's consent.

The late Arab scholar Abdel Omran argued that Islam is sympathetic to family planning if it promotes the health and well-being of the family. Islam considers the family to be the basic unit of society. Husbands and wives, united through marriage, are the center of family life and promote the important goal of tranquility within the family. While procreation is expected in marriage, sexual relations within marriage need not be only for the purpose of producing children. From the Islamic point of view, procreation should support the family's tranquility and not disrupt it. This teaching appears to endorse the concept of limiting and delaying pregnancies, and therefore the use of contraception within marriage.

Dr. Omran also found Islamic jurisprudence justifies family planning for avoiding the transmission of disease to offspring and for conserving the family's financial resources to benefit those already born.

References

Farzaneh Roudi-Fahimi, *Islam and Family Planning* (Washington, DC: Population Reference Bureau, 2004); and Abdel R. Omran, *Family Planning in the Legacy of Islam* (London: Routledge, 1992).

Increased use among rural women is a key reason for the fertility decline in some MENA countries. In Egypt, which has a large rural population, the percentage of rural women using a method of family planning increased from 25 percent to 57 percent between 1988 and 2005; use among urban women rose from 52 percent to 63 percent over the same period. As family planning use rose, Egypt's rural TFR dropped from 5.4 children to 3.4 children, while the urban TFR slipped from 3.5 to 2.7.[19]

Accordingly, Morocco's overall TFR has fallen from 5.6 children per woman in 1979-1980, when less than 20 percent of women of reproductive age used a contraceptive method, to 2.5 children per woman in 2003. Contraceptive use has been increasing faster in rural than in urban areas within the country in recent years, rising from 52 percent to 60 percent among rural women of reproductive age between 1997 and 2003. Contraceptive use among urban women—66 percent in 2003—changed little over the period.[20]

Iran has shown the most impressive expansion in the access and use of contraceptives in rural areas through "health houses." More than one-half of rural Iranian women use modern contraceptives (see Box 1, page 7).

Family planning is acceptable under Islamic laws (see Box 4) and is likely to continue to rise in the region as access to reproductive health services expands and the idea of delaying and limiting births gains wider acceptance.

Migration in MENA: Moving In, Out, and Within

The second half of the 20th century brought large movements of people within, out of, and into the Middle East and North Africa. The most dramatic of these movements were prompted by political change, including the creation of Israel. But the bulk of migration has involved people seeking jobs and the largest of these was prompted by the development of oil fields in the Persian Gulf in the 1950s. Another stream of migrants leads out of MENA for jobs in Europe, beginning with the post-World War II reconstruction.

In recent decades, immigrants have sent home billions of dollars in remittances that support their families and add significantly to their country's national income.

Moving For Economic Opportunity

Migration theory holds that people will move the shortest distance possible to attain their desired goal, whether to improve their economic opportunities or to escape political persecution and unrest. It is no surprise, then that considerable migration takes place within the MENA region, especially given the common language of the Arab countries. In particular, migrants from Yemen and Egypt seek jobs in the oil-producing countries of the Gulf states.[21]

When the international price of crude oil jumped from around US$2 a barrel in 1970 to nearly US$40 a barrel in 1980, the oil-rich countries in the Gulf enjoyed an enormous boost in incomes. Many invested these

Figure 5
Foreigners' and Nationals' Share of the Labor Force in Saudi Arabia, Bahrain, and Kuwait, 2002 and 2004

Source: Cooperative Council for the Arab States of the Gulf, *Statistical Bulletin 2006*, Vol. 15 (www.gcc-sg.org, accessed April 6, 2007): table 4.

Table 4
Share of Foreign-Born in the Countries of the Middle East and North Africa, 2005

Country	Percent of population
Qatar	78
United Arab Emirates	71
Kuwait	62
Palestinian Territory	45
Israel	40
Jordan	39
Saudi Arabia	26
Oman	24
Lebanon	18
Libya	11
Syria	5
Iran	3
Turkey	2
Yemen	1
Algeria	1
Iraq	z
Egypt	z
Morocco	z
Tunisia	z

z– less than 0.5 percent

Note: The estimates of the foreign-born population, or foreign stock, generally refer to residents who were born in another country, but the definitions vary by country.

Source: UN, *Trends in Total Migrant Stock: The 2005 Revision* (2006; http://esa.un.org accessed April 5, 2007).

revenues in major projects to create a basic infrastructure and develop modern services. Their own labor forces lacked the numbers, skills, and desire to fill the new jobs. The need for labor in the Gulf was so immediate and so great in the 1970s that these countries recruited workers from outside the region. The number of foreign workers in the six Gulf states that make up Gulf Cooperative Council (GCC) rose from 1.1 million in 1970 to more than 5.2 million in 1990. Another 2 million Egyptians were working in Iraq in 1990.[22]

The bulk of foreign workers in the Gulf states were from India, Bangladesh, Indonesia, Pakistan, and the Philippines. Natives in the Gulf countries came to depend on these foreigners to fill a wide array of domestic service jobs, as well as more skilled jobs in the private sector. So many workers arrived from South Asia and other MENA countries that they outnumbered the native populations in some Gulf states. Foreigners filled more than 90 percent of private-sector jobs in Kuwait and Qatar in the early 2000s.

But the oil revenues have fluctuated in the GCC, and because petroleum has remained the main source of income, economic growth has also fluctuated. In recent years, concern about the foreign majority and increasing unemployment among the burgeoning youth population have prompted the Gulf countries to enact policies to discourage the hiring of additional foreign workers.[23] Policies include fining employers who do not hire a minimum percentage of nationals and taxing the hiring of foreigners.

But breaking the dependence on foreigners has been difficult for the Gulf countries. Nationals of the wealthy MENA countries initially shunned the manual labor jobs usually performed by foreigners. Private employers often preferred foreign contract workers, who demanded fewer benefits and often were more eager to perform well. Nationals opted for public-sector jobs with more security, higher salaries, and better benefits. There is some evidence that attitudes are changing and natives are more willing to seek lower-status, private-sector jobs such as drivers, caregivers, butchers, or retail workers.[24]

Foreigners' jobs in the region are not only vulnerable to economic ups and downs, but also to political instability and conflicts. Millions of foreign workers were displaced by the 1990 Persian Gulf crisis precipitated by Iraq's invasion of Kuwait. Hundreds of thousands of Palestinians and other non-Kuwaitis were expelled from Kuwait. Close to 1 million Yemeni workers were expelled from Saudi Arabia. This was initially viewed as an opportunity for employers to shift to native workers, but more than 15 years later, the dependence on foreigners continues. In Saudi Arabia, foreigners accounted for one-half of the labor force in 2002 (see Figure 5). The foreign share of the labor force is much greater in the smaller Gulf states: 58 percent in Bahrain and 81 percent in Kuwait in 2004.

Except in Yemen—a country of emigration—the non-nationals' share of the total population on the Arabian Peninsula ranged from 24 percent in Oman to 78 percent in Qatar (see Table 4). The social and economic position of foreigners varies by country, as does the definition of "foreign." In about one-half of the MENA countries, foreign-born residents make up less than 10 percent of the national population. In North Africa, which is a region of emigration, foreigners account for less than 1 percent of population.

Money From Immigrants Helps Countries of Origin

Remittances sent home by foreign workers are often vital for their family's well-being and are an important source of national income for the labor-sending countries. Indeed, some countries encourage emigration as a development strategy to cope with high unemployment. Saudi Arabia alone was the source of US$13.6 billion in remittances in 2004. Bangladesh—a major source of foreign workers—received US$3.8 billion in remittances in 2004-2005; 70 percent was sent from Persian Gulf countries. An estimated 13 percent of the Philippines' US$10.7 billion in remittances in 2004 originated from Gulf countries.[25] Egyptians working within the Middle East and elsewhere sent home US$3.3 billion. Foreign remittances accounted for 21 percent of the GDP in Lebanon and 20 percent in the Palestinian Territory.[26]

Foreigners in most MENA countries, and particularly in the Gulf, often work long hours and have limited recourse if employers fail to deliver the pay and other benefits promised.[27] Pressured by international human rights activists, the Gulf countries are increasingly adopting policies to prevent abuses of foreign workers and to ensure workers receive benefits due. But foreigners continue to flock to MENA because they earn more there than they would in their home countries.

Refugees

Another important group of migrants in MENA is refugees and asylum-seekers, many from neighboring countries. MENA is home to at least 5 million refugees, arguably the largest refugee population in the world.[28] The numbers fluctuate, but Iran has had the largest number of refugees in recent years: nearly 1 million in 2005, mostly from Afghanistan.

The residents of the former Palestine and their descendants are among the oldest and largest refugee groups. Hundreds of thousands of Palestinians became refugees as a result of Arab-Israeli conflicts over the last half century. Many settled in refugee camps that still exist today.

The UN High Commissioner for Refugees refers to Palestinians as "warehoused" populations, and a special UN agency, the UN Relief and Works Agency for Palestinian Refugees in the Middle East (UNRWA) oversees their welfare. Most Palestinian refugees live in neighboring countries: Jordan, Lebanon and Syria (see Table 5). In addition, 1.7 million Palestinians living in the Palestinian territories of Gaza and the West Bank have refugee status from UNRWA: They account for about 40 percent of the territories' population. Refugee status grants residents certain financial, health, and educational benefits from UNRWA, which is a valued commodity in an economically depressed area.

Table 5

Major Refugee Populations in the Middle East and North Africa, by Country of Residence in 2005

Country of asylum/ *Leading countries of origin*	Number of refugees
MENA-Western Asia	
Iran	994,000
Afghanistan	*940,000*
Iraq	*54,000*
Iraq	63,400
Former Palestine	*34,000*
Iran	*14,300*
Turkey	*13,600*
Jordan	609,500
Iraq	*450,000*
Former Palestine	*58,200*
Palestinian Territory	1,685,800
Gaza Strip	986,000
West Bank	699,800
Lebanon	296,800
Former Palestine	*256,800*
Iraq	*9,200*
Sudan	*8,300*
Syria	866,300
Former Palestine	*512,100*
Iraq	*351,000*
Turkey	7,300
Iran	*3,600*
Iraq	*2,300*
Arabian Peninsula	
Kuwait	14,300
Former Palestine	*13,500*
Saudi Arabia	240,800
Former Palestine	*240,000*
Yemen	82,700
Somalia	*78,600*
North Africa	
Algeria	94,500
Morocco	*90,000*
Former Palestine	*4,000*
Egypt	86,700
Former Palestine	*57,000*
Sudan	*23,600*
Somalia	*4,200*
Libya	12,000
Former Palestine	*8,700*
Somalia	*2,900*
Morocco	2,300
Countries outside MENA	
Germany	
Turkey	*7,200*
Iraq	*4,900*
Iran	*4,400*
Greece	
Iraq	*2,100*
Mauritania	
Morocco	*26,700*
United States	
Iran	*2,800*

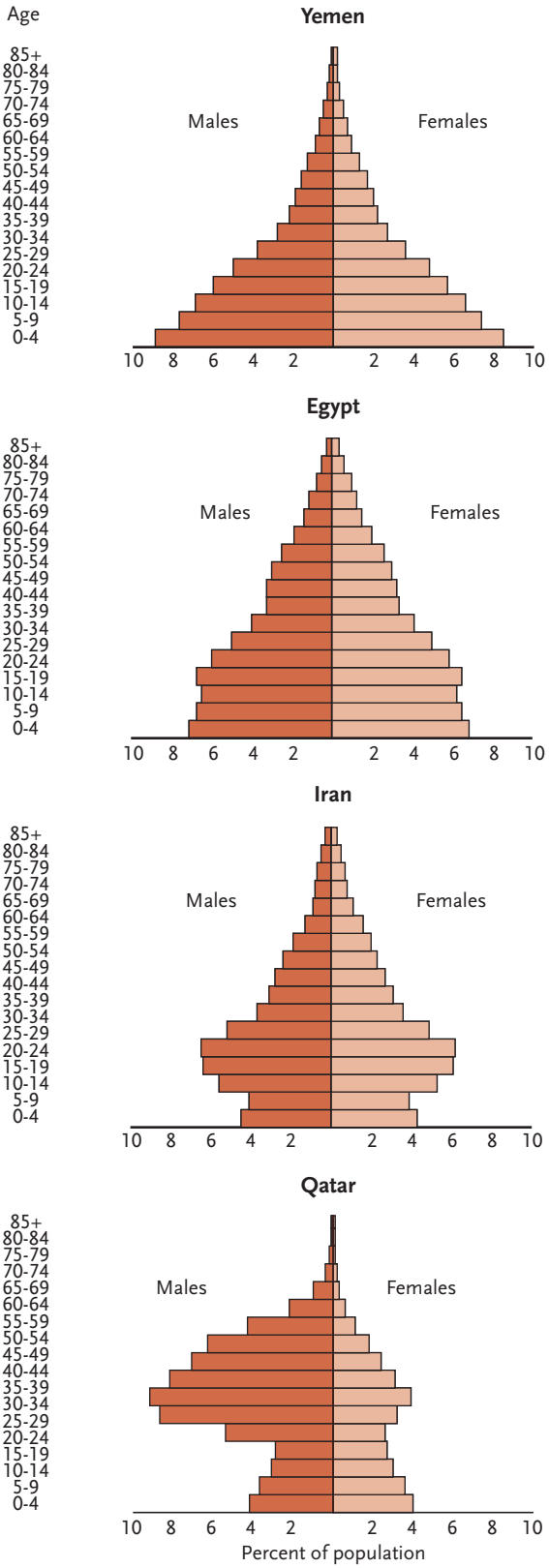
MENA: Middle East and North Africa

Source: U.S. Committee for Refugees and Immigrants, *World Refugee Survey 2006* (2006): table 3.

Moving Out of the Region

Large communities of people from the Middle East and North Africa have grown up outside the region, particularly in France, Germany, and other European countries. Some of this migration resulted from previous colonial ties to a European country, such as Algerians in France, while others, such as the Turkish population in Germany, resulted from recruitment of workers in the 1960s. More recent migration out of MENA has been fueled by people seeking economic opportunities or escaping violence and political instability in their home countries.

Figure 6
Age and Sex Structure of Selected Countries in the Middle East and North Africa, 2005



Source: UN Population Division, *World Population Prospects: The 2006 Revision* (2007; http://esa.un.org, accessed April 7, 2007).

In 2004, about one-third of France's 3.3 million foreigners were from one of four MENA countries: Morocco, Algeria, Turkey, and Tunisia. In 2006, Germany reported more than 2 million residents from MENA countries and nearly 1.8 million of them were ethnic Turks. Residents from MENA countries accounted for about one-third of Germany's 6.9 million foreign population. Migration from Morocco to southern Europe has been increasing in recent years, especially to Spain and Italy.[29]

Except for a relatively small share of highly skilled professionals and academics, European residents from the Middle East and North Africa tend to occupy a lower socioeconomic status. Many have been excluded from gaining citizenship or from full participation in public life. The discrimination and high unemployment among immigrant communities has generated frustration that occasionally erupts in violence, as evidenced by street riots in immigrant communities of France in 2005.[30]

With more jobs and advancement opportunities in Europe than in MENA, the stream of immigrants has continued, despite European efforts to slow it down.[31] And the money MENA emigrants earn helps their families back home. Moroccans abroad sent home $4.2 billion in 2004, accounting for 8.5 percent of the national GDP.

Shifting Age Structure

In most countries, the transition from higher to lower mortality and fertility has determined the population age structure. High fertility and rapid growth mean that each birth cohort is larger than the last: A graph of the population by age and sex produces a steep pyramid, such as that shown for Yemen in Figure 6. This is the classic shape for a population in the early stages of the demographic transition. Recent fertility decline, as in Egypt, is reflected in the shortened bars in lower part of the pyramid, a sign that population growth is slowing. A relatively sudden and dramatic drop in fertility, illustrated by Iran's graph in Figure 6, causes smaller birth cohorts each year.

Migration is an important demographic wildcard in MENA. It affects the age and sex structure of populations as well as the size. The MENA countries are more affected by migration than most other regions. The influx of foreign men to work in petroleum-rich Persian Gulf countries means there is an unusually high proportion of working-age men in the population, illustrated by Qatar in Figure 6. Overall, there are nearly three men for every woman between the ages of 20 and 64. In con-

trast, the male side of Yemen's population pyramid shows a slight deficit in the working ages—most likely men who moved to a more wealthy country on the Arabian Peninsula to work.

These graphs show that the demographic transition from higher to lower mortality and fertility is occurring at a different pace in different countries. But in general, the population in MENA countries is young, well below the world average of 28 (see Figure 7). The median is just 17 years in Yemen and the Palestinian Territory, and ranges up to 31 in Qatar. The median is much higher in the Gulf countries that have a significant foreign population, because most are in their working ages, and often do not have children living with them.

Youth Bulge

The average age of population will increase as fertility declines and children make up a shrinking share of the population. But at the same time, another consequence of MENA's recent demographic history is becoming more noticeable and more important: the youth bulge.

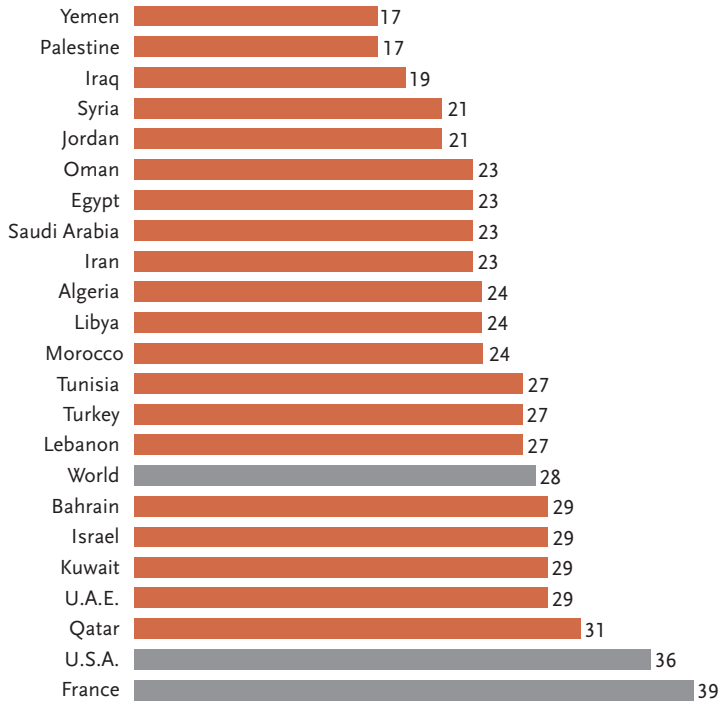
The significant decline in child mortality and the relatively slow decline in fertility led first to an increase in the child population in the 1980s, followed by a rather sudden slowdown in births as fertility declined in the 1990s. The children born in the 1980s and early 1990s—now 15 to 24—emerged as a "youth bulge," because they were followed by smaller birth cohorts. This bulge is most notable in countries such as Iran, where fertility declined sharply in the 1990s. In 2005, 25 percent of Iran's population was between the ages of 15 and 24. The youth population share is 20 percent or higher in much of the region, compared with about 15 percent in the United States.[32]

Because MENA countries are at different stages of fertility decline, the youth bulge will reach its maximum size in some countries as it is declining in others. Over the next two decades, for example, the youth populations of high-fertility Iraq, Yemen, and the Palestinian Territory will see the fastest growth. In 2007, at least 40 percent of these countries' populations are under age 15. Even considering some fertility decline, 15-to-24-year-olds are projected to make up about one-fourth of the countries' populations in 2025. The number of Iraqi youth is projected to grow by nearly 3 million by 2025, reaching 8.6 million. The number of Palestinian youth will increase 80 percent, to 1.3 million, and Yemeni youth by 70 percent, to total 7.6 million.[33]

In contrast, countries already well into the transition to lower fertility—including Lebanon, Iran, Morocco, and Turkey—will see their youth share decline between 2005 and 2025. The confluence of these trends in higher and lower fertility countries will cause the youth population to peak in 2035 at about 100 million. This phenomenon presents both a challenge for governments to prepare these young people for meaningful participation in society and an opportunity for economic growth fueled by a young and relatively large labor force.

Figure 7

Median Age of the Populations of MENA Countries, the World, the United States, and France, 2005



MENA: The Middle East and North Africa

U.A.E.: United Arab Emirates

Source: UN Population Division, *World Population Prospects: The 2006 Revision* (2007; http://esa.un.org, accessed April 4, 2007).

The Potential Demographic Dividend

This youth bulge—concentrated in the young working ages—offers a limited opportunity for a surge in economic growth, a phenomenon credited with helping create an economic boom in East Asia.[34] The increasing participation of women compounds the effect of the youth bulge on labor force growth in MENA. The percentage of women in paid employment increased from about 25 percent in 1980 to about 30 percent in 2006. If women's participation continues to increase closer to the world average of 52 percent, women will constitute a huge potential pool of workers in MENA.[35]

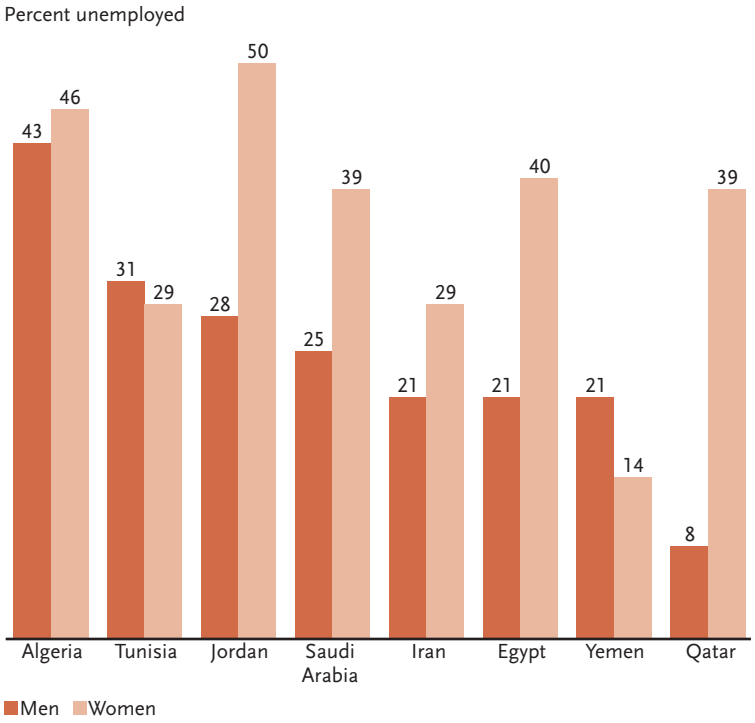
But to reap the benefits of this demographic "bonus" or "dividend," MENA countries will need to adapt their economic, social, and political institutions to capitalize on the growing pool of potential workers. Educational systems, labor markets, housing supply, and health systems will need to expand and adapt to meet the needs of young people and the countries' economies. A demographic bonus can only occur when a large young population is healthy, educated, trained, and ready to be absorbed into a market economy.

MENA countries have several obstacles to overcome if they are to reap this demographic dividend from the working-age bulge. Governments will need to develop institutions to help industry expand the jobs available and revamp inadequate and sometimes obsolete educational systems. They also need to find ways to integrate more women into the labor force. Cultural preferences and limited job opportunities have kept many women out of the labor force in MENA countries. While paid employment for women is gaining acceptance in the region, it will take time for new attitudes to spread throughout the society.

In addition to creating sufficient jobs and preparing a skilled labor force, reaping the demographic dividend will require meeting escalating demands for education, housing, and health care as these young adults start their own families.

Figure 8

Unemployment Rates For Young Men and Women in Selected MENA Countries, 2005



MENA: The Middle East and North Africa

Note: The unemployment rate refers to the percent unemployed of those ages 15 to 24 who are in the labor force, that is, currently working or seeking employment.

Source: R. Assaad and F. Roudi-Fahimi, *Youth in the Middle East and North Africa: Demographic Opportunity or Challenge?* (2007; www.prb.org, accessed April 30, 2007).

Improving Education

The MENA countries have made remarkable progress in reducing illiteracy and increasing education over the past 30 years. Unfortunately, illiteracy and school dropout rates remain unacceptably high in pockets in some MENA countries. The largest numbers of illiterate young people are in Egypt, Iraq, and Yemen. Together, these three countries account for about three-quarters of the 10 million illiterate youth in the region in 2005. About two-thirds of the illiterate youth are girls and young women.

In Egypt, the share of the population age 15 years and older who could read and write shot from 40 percent to 83 percent between 1980 and 2004, thanks to educational expansion at the primary level.[36] Morocco also saw welcome improvements in literacy—from 29 percent to 52 percent. However, population growth driven by higher fertility among the less educated population meant that the number of people who were illiterate grew from 8 million in 1980 to 10 million in 2004.

A growing problem in the region is a mismatch between the formal education system and the skill needs of the job market. The educational systems in some counties are largely geared toward public-sector employment, while future job growth will likely be in the private sector. New technologies and a growing integration into world economies have made much of the current educational curricula obsolete. In traditional education, students learn through rote repetition, while the modern economy calls for people with problemsolving skills and familiarity with emerging technologies. Entrepreneurs in the region regularly cite a lack of general job readiness and specific skills in job applicants.[37]

At the same time, the creation of jobs for highly skilled professionals is lagging behind the graduation rate.[38] Accordingly, many MENA countries are likely to see additional "brain drain," as many of the most promising youth leave the region to pursue university education and better job opportunities in Europe and North America.

In some countries, recent fertility declines will relieve the pressure for creating more spaces in schools. While the primary school-age population is still growing each year in some countries, fertility declines have caused the

numbers to decline in other countries. The number of primary-school-age children in Iran declined by nearly 2 million between 1999 and 2004. At the same time, this population increased in Turkey and the Arab countries.

Expanding Job Opportunities

The MENA countries are not creating jobs fast enough to match the increase in the working-age population. Absorbing the youth bulge will be a challenge, especially with MENA's unemployment rate already the world's highest. In 2006, about 17 percent of the women in the labor force were unemployed, compared with 10 percent of men. In contrast, average unemployment rates globally were 7 percent for women and 6 percent for men, as estimated by the International Labor Organization (ILO).[39]

The unemployment rates for youth just entering the work force—especially for young women—are extremely high. While less than 15 percent of young men and women were unemployed worldwide, the ILO estimated that just over 20 percent of young men and just over 30 percent of young women in MENA were unemployed in 2005.

The situation is particularly dire for members of MENA's youth bulge in some countries. More than 40 percent of Algeria's young men and women were unemployed in 2005, which may be why so many Algerians are emigrating to Europe and elsewhere in search of jobs. Between 21 percent and 31 percent of young men were unemployed in Tunisia, Jordan, Saudi Arabia, and several other MENA countries, along with between 29 percent and 50 percent of young women. Qatar, with a labor force dominated by foreign male workers, has relatively low unemployment for young men, but high unemployment for young women (see Figure 8).

The high unemployment for young women reflects the rapid increase in women in the labor market, along with fewer government jobs and persistent barriers for women working in the private sector. Private-sector employers have been reluctant to hire women because, among other reasons, the labor market is highly segregated by sex; female employees are potentially more expensive because they may need maternity leave and child care; and women have limited geographic mobility. In addition, the labor-intensive, export-oriented types of industries that might hire women are not expanding in the current economies.

If MENA countries are to benefit from the demographic dividend they will need to reform the generous social benefits and services offered to citizens, especially in the oil-rich Arabian Peninsula countries. Citizens in the Gulf countries have been guaranteed government jobs and are protected by labor laws. But the combination of slower job growth and the drive to replace foreign workers with native-born employees in private-sector jobs has produced a mismatch between the skills of the young people seeking work and the jobs available. Even some of the oil-rich countries in the Gulf, such as Saudi Arabia, which have traditionally had full employment, are faced with high youth unemployment.

Turning MENA's population challenges into demographic dividends will require good governance, engaging civil society, integration into global markets, managing oil resources to create more jobs, and reforming educational systems to match skills needed for the 21st century.[40]

Beyond the Youth Bulge

While the youth bulge and concomitant demands on the labor force, education, housing, health, and other public services are garnering most attention now, other demographic trends will continue to affect the region. As the youth bulge reaches prime family formation age in each country, the number of births is likely to increase, fueling considerable future population growth. The region's population is slated to reach nearly 700 million by 2050, a 60 percent increase over the 2007 total. The population on the Arabian Peninsula is projected to double to reach 124 million by 2050. In Western Asia, Iraq and the Palestinian Territories will more than double in size. Iran and Turkey are slated to have about 100 million people each. In North Africa, Egypt will continue to dominate demographically, with a population exceeding 120 million.

As MENA's total population increases, so will its elderly population. This, in turn, will create new demands for health care and financial security. The elderly will remain a small share of the total population, especially compared with Europe, where one-third of the population will be age 60 or older by 2050, according to recent UN projections. But the numbers entering the older ages in MENA will continue to expand. Between 2000 and 2050, Egypt's population 60 years and older is expected to grow from 4.6 million to 23.7 million: The elderly will account for nearly 20 percent of the total population compared with 7 percent in 2000. Saudi Arabia's elderly population is expected to grow from fewer than 1 million to 8.1 million over the same period, with the percent ages 60 or older rising from 4 percent to 18 percent.

Regardless of the level of economic development or national income, the prospect of larger populations means that governments are increasingly challenged to provide the basic needs for growing numbers of citi-

zens—adequate housing, sanitation, health care, education, and jobs. These same challenges face many of the world's countries, but they are compounded in a region that is politically volatile and where water is scarce. Yet wise investments in today's youth, particularly in girls, can yield potentially large payoffs for MENA's future development.

References

1. Abdel R. Omran and Farzaneh Roudi, "The Middle East Population Puzzle," *Population Bulletin* 48, no. 1 (1993); and United Nations (UN) Population Division, *World Population Prospects: The 2006 Revision* (2007), detailed data accessed online at http://esa.un.org, on April 10, 2007.
2. UN Population Division, *World Population Prospects: The 2006 Revision.*
3. Dominique Tabutin and Bruno Schoumaker, "The Demography of the Arab World and the Middle East From the 1950s to the 2000s," *Population-E* 60, nos. 5-6 (2005): 505-616; and Omran and Roudi, "The Middle East Population Puzzle."
4. World Health Organization (WHO), UNICEF, and the UN Population Fund (UNFPA), *Maternal Mortality 2000* (2004): appendix table J, accessed online at www.who.int, on May 16, 2007.
5. Karima Khalil and Farzaneh Roudi-Fahimi, *Making Motherhood Safer in Egypt* (Washington, DC: Population Reference Bureau, 2004).
6. UN and Egypt Ministry of Planning, *Millennium Development Goals: Second Country Report—Egypt 2004*, accessed online at www.undp.org.eg, on April 13, 2007.
7. Joselyn DeJong et al., *Young People's Sexual and Reproductive Health in the Middle East and North Africa* (Washington, DC: Population Reference Bureau, 2007), accessed online at www.prb.org, on April 30, 2007; Vidya Setty-Venugopal and Ushma D. Upadhyay, "Birth Spacing: Three to Five Saves Lives," *Population Reports*, Series L, No. 13 (Baltimore: Johns Hopkins Bloomberg School of Public Health, Population Information Program, 2002); and the Alan Guttmacher Institute (AGI) and UNFPA, *Adding It Up: The Benefits of Investing in Sexual and Reproductive Health Care* (New York: AGI and UNFPA, 2003): 18.
8. Carl Haub, *2006 World Population Data Sheet* (Washington, DC: Population Reference Bureau, 2006); and UN Population Division, *World Population Prospects: The 2006 Revision.*
9. Carla Makhlouf Obermeyer, "Reproductive Choice in Islam: Gender and State in Iran and Tunisia," *Studies in Family Planning* 25, no. 1 (1994): 41-51; and Saad Eddin Ibrahim and Barbara Lethem Ibrahim, "Egypt's Population Policy: The Long March of State and Civil Society," in *Do Population Policies Matter?* ed. Anrudh Jain (New York: Population Council, 1998): 19-52.
10. Hoda Rashad, Magued Osman, and Farzaneh Roudi-Fahimi, *Marriage in the Arab World* (Washington, DC: Population Reference Bureau, 2005), accessed online at www.prb.org, on April 7, 2007.
11. Omran and Roudi, "The Middle East Population Puzzle"; and Justin Vaisse, "Unrest In France, November 2005: Immigration, Islam and the Challenge Of Integration," presentation to U.S. Congressional staff at the Brookings Institution, Washington, DC, Jan. 10 and 12, 2006.
12. Central Bureau of Statistics, *Statistical Abstract of Israel, 2006* (2005): table 3.12, accessed online at www.cbs.il, on April 22, 2007.
13. Tabutin and Schoumaker, "The Demography of the Arab World and the Middle East": 588-90.
14. Tabutin and Schoumaker, "The Demography of the Arab World and the Middle East": table A-4; and Rashad, Osman, and Roudi-Fahimi, *Marriage in the Arab World.*
15. Rashad, Osman, and Roudi-Fahimi, *Marriage in the Arab World:* table 1.
16. DeJong et al., *Young People's Sexual and Reproductive Health in the Middle East and North Africa.*
17. Ragui Assaad and Farzaneh Roudi-Fahimi, *Youth in the Middle East and North Africa: Demographic Opportunity or Challenge?* MENA Policy Brief (Washington, DC: Population Reference Bureau, 2007): 4, accessed online at www.prb.org, on April 30, 2007.
18. UN, *Levels and Trends of Contraceptive Use as Assessed in 2002* (New York: UN, 2004): table A.1.
19. Fatma El-Zanaty and Ann Way, *Egypt Demographic and Health Survey 2005* (Cairo: Ministry of Health and Population, National

Population Council, El-Zanaty and Assoc., and ORC Macro, 2006): table 4.3.

20. Ministry of Health (Morocco), ORC Macro, and the League of Arab States, *Enquête sur la Population et la Santé Familiare 2003-2004* (Calverton, MD: Ministry of Health and ORC Macro, 2005): 48 and 64.
21. Philippe Farques, "International Migration in the Arab Region," paper presented to the UN Expert Group Meeting on International Migration and Development in the Arab Region: Challenges and Opportunities, Beirut, May 10, 2006, accessed online at www.un.org, on April 10, 2007.
22. UN, *World Population Monitoring Report 1991, Population Studies* no. 126 (New York: UN, 1992); and UNESCWA (Economic and Social Commission for Western Asia), "Arab Labor Migration," paper presented at the Arab Population Conference in Amman, Jordan, April 4-8, 1993.
23. "Middle East: Israel, Jordan, GCC," *Migration News* 13, no. 4 (2006), accessed online at http://migration.ucdavis.edu, on April 26, 2007.
24. Nasra M. Shah, "Restrictive Labour Immigration Policies in the Oil-Rich Gulf: Effectiveness and Implications for Sending Asian Countries," paper presented at the UN Expert Group Meeting on International Migration and Development in the Arab Region: Challenges and Opportunities, Beirut, May 15-17, 2006, accessed online at www.un.org, on May 3, 2007.
25. UN Population Division, "International Migration in the Arab Region"; and Shah, "Restrictive Labour Immigration Policies in the Oil-Rich Gulf."
26. UN Population Division, "International Migration in the Arab Region."
27. UN Population Division, "International Migration in the Arab Region": 21-22.
28. U.S. Committee for Refugees and Immigrants, *World Refugee Regions 2006* (2006), accessed online at www.refugees.org, on April 12, 2007.
29. Organisation for Economic Cooperation and Development (OECD), *International Migration Outlook: SOPEMI 2006 ed.* (Paris: OECD, 2006); and Federal Statistical Office of Germany, *Population: Foreign Population by Country of Origin 2006*, accessed online at www.destatis.de, on April 26, 2007.
30. "France," *Migration News* 14, no. 2 (2007), accessed online at http://migration.ucdavis.edu, on May 17, 2007; and Molly Moore, "France Beefs Up Response to Riots," *The Washington Post*, Nov. 8, 2005.
31. Ayman Zohry, "Migration Without Borders: North Africa as a Reserve of Cheap Labor For Europe," article prepared for the *UNESCO Migration Without Borders Series* (2005), accessed online at http://unesdoc.unesco.org, on April 26, 2007.
32. Assaad and Roudi-Fahimi, *Youth in the Middle East and North Africa.*
33. Assaad and Roudi-Fahimi, *Youth in the Middle East and North Africa.*
34. David E. Bloom, David Canning, and Jaypee Sevilla, *The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change* (Santa Monica, CA: RAND, 2003).
35. International Labour Organisation (ILO), *Global Employment Trends for Women 2007* (2007): table 2, accessed online at www.ilo.org, on May 6, 2007.
36. UNESCO Institute for Statistics, *Adult (15+) Literacy Rates and Illiterate Population by Country and by Gender*, accessed online at http://stats.uis.unesco.org, on May 12, 2007.
37. Assaad and Roudi-Fahimi, *Youth in the Middle East and North Africa.*
38. See Islamic Development Bank, "Brain Drain in IDB Member Countries: Trends and Development Impact, *IDB Occasional Paper* No. 12 (2006), accessed online at www.islamic development.org, on May 13, 2007.
39. ILO, *Global Employment Trends for Women 2007:* table 3.
40. World Bank, *Unlocking the Employment Potential in the Middle East and North Africa: Toward a New Social Contract* (Washington, DC: World Bank, 2004).

PRB's Middle East and North Africa Programs

PRB's Middle East and North Africa Program

The goal of the Population Reference Bureau's Middle East and North Africa (MENA) Program is to respond to regional needs for timely and objective information and analysis on population, socioeconomic, and reproductive health issues. With funding from the Ford Foundation Cairo office. The program raises awareness of these issues among decisionmakers in the region and in the international community in hopes of influencing policies and improving the lives of people living in the MENA region.

MENA program activities include: producing and disseminating both print and electronic publications on important population, reproductive health, environment, and development topics (many publications are translated into Arabic); working with journalists in the MENA region to enhance their knowledge and coverage of population and development issues; and working with researchers in the MENA region to improve their skills in communicating their research findings to policymakers and the media.

MENA Policy Briefs

Young People's Sexual and Reproductive Health in the Middle East and North Africa (April 2007)
Youth in the Middle East and North Africa: Demographic Opportunity or Challenge? (April 2007)
Time to Intervene: Preventing the Spread of HIV/AIDS in the Middle East and North Africa (January 2007)
Reforming Family Laws to Promote Progress in the Middle East and North Africa (December 2005)
Investing in Reproductive Health to Achieve Development Goals: The Middle East and North Africa (December 2005)
Marriage in the Arab World (September 2005)
Islam and Family Planning (August 2004)
Progress Toward the Millennium Development Goals in the Middle East and North Africa (March 2004)
Making Motherhood Safer in Egypt (March 2004)
Empowering Women, Developing Society: Female Education in the Middle East and North Africa (October 2003)
Women's Reproductive Health in the Middle East and North Africa (February 2003)
Finding the Balance: Water Scarcity and Population Demand in the Middle East and North Africa (July 2002)
Iran's Family Planning Program: Responding to a Nation's Needs (June 2002)
Population Trends and Challenges in the Middle East and North Africa (October 2001)

These policy briefs are available in both English and Arabic, and can be ordered free of charge by audiences in the MENA region by contacting the Population Reference Bureau via e-mail (prborders@prb.org) or at the address below. Both versions (except for the Arabic version of *Population Trends and Challenges*) are also available on PRB's website (www.prb.org).

Become a Member of PRB

Each year you will receive four *Population Bulletins* and the annual *World Population Data Sheet* plus additional special publications and benefits.

Population Reference Bureau
Circulation Dept., P.O. Box 96152
Washington, DC 20077-7553

For faster service, call **800-877-9881**
Or visit **www.prb.org**
Or e-mail **popref@prb.org**
Or fax **202-328-3937**

Member Categories	
Individual	$50
Library	$75
Corporation	$300
PRB Lifetime Member	$5,000

Foreign members are required to pay an additional $15.00 for shipping and handling.

www.prb.org

PRB's website is regularly updated and enhanced with new content and features:

- **New articles and reports.** Each month features new content on topics as diverse as gender, reproductive health, environment, and race/ethnicity.
- **Graphics Bank.** PowerPoint slides of population-related information, ready for use in presentations or in the classroom.
- **PRB Discuss Online.** Available at http://discuss.prb.org, allows visitors to take part in online discussions with PRB staff on newsworthy population, health, and environment topics, trends, and issues. Transcripts of each discussion are archived on PRB's website.
- **Educators section.** Features online lesson plans, maps, and educational resources.
- **Journalists section.** Highlights news releases, frequently asked questions, webcasts, and a dictionary of population terms.
- **"PRB News" and "Events & Training."** Announce our monthly policy seminars, intern and fellowship applications, and PRB workshops, as well as news from PRB's Communications, Domestic, and International programs.
- **Quick Links.** Popular PRB publications and project websites are featured on each page.
- **E-Mail This.** Allows visitors to send e-mails to others with links to PRB content.

PRB's website has hundreds of articles and reports on population, health, and the environment. This rich collection may be mined and accessed through our Google search function, and through:

- **Country Pages.** A quick way to scan up-to-date population, health, and environment data for any of 236 countries, and to find links to related PRB articles and reports and organizations' websites.
- **Publication Type.** Visitors can access all titles in our three most popular publication series: *Data Sheets, Population Bulletins*, and *Policy Briefs*, arranged by topic.
- **Topics and Regions/Countries.** Visitors can search for PRB materials on 13 topics, six world regions, and 236 countries from every page on the site.
- **DataFinder.** Search a database of 136 population, health, and environment variables for more than 220 countries, 28 world regions and subregions, and the world. The U.S. database includes more than 250 social, economic, and demographic variables for each of the 50 states and the District of Columbia. Most of the data are available separately for metropolitan, micropolitan, and nonmetropolitan areas within each state.

At www.prb.org, sign up for PRB E-Mail News to receive announcements about new web content and PRB-sponsored seminars and briefings.

Recent Population Bulletins

Volume 62 (2007)

No. 1 Population: A Lively Introduction, 5th ed.
by Joseph A. McFalls Jr.

No. 2 Challenges and Opportunities—The Population of the Middle East and North Africa
by Farzaneh Roudi-Fahimi and Mary Mederios Kent

Volume 61 (2006)

No. 1 The Global Challenge of HIV and AIDS
by Peter R. Lamptey, Jami L. Johnson, and Marya Khan

No. 2 Controlling Infectious Diseases
by Mary M. Kent and Sandra Yin

No. 3 India's Population Reality: Reconciling Change and Tradition
by Carl Haub and O.P. Sharma

No. 4 Immigration: Shaping and Reshaping America
by Philip Martin and Elizabeth Midgley

Volume 60 (2005)

No. 1 Global Aging: The Challenge of Success
by Kevin Kinsella and David R. Phillips

No. 2 New Marriages, New Families: U.S. Racial and Hispanic Intermarriage
by Sharon M. Lee and Barry Edmonston

No. 3 The American Community Survey
by Mark Mather, Kerri L. Rivers, and Linda A. Jacobsen

No. 4 Global Demographic Divide
by Mary M. Kent and Carl Haub

Volume 59 (2004)

No. 1 Transitions in World Population
by Population Reference Bureau staff

No. 2 China's Population: New Trends and Challenges
by Nancy E. Riley

No. 3 Disability in America
by Vicki A. Freedman, Linda G. Martin, and Robert F. Schoeni

No. 4 America's Military Population
by David R. Segal and Mady Wechsler Segal

Volume 58 (2003)

No. 1 Population Dynamics in Latin America
by Jorge A. Brea

No. 3 Critical Links: Population, Health, and the Environment
by Roger-Mark De Souza, John S. Williams, and Frederick A.B. Meyerson

Challenges and Opportunities—The Population of the Middle East and North Africa

The countries of the Middle East and North Africa continue to draw the world's fascination and concern. With two-thirds of the world's known petroleum reserves, the region's economic and political importance far outweighs its population size. Yet it has the world's second-fastest growing population, after sub-Saharan Africa. Its demographic trends—especially the rapidly growing youth population—are complicating the region's capacity to adapt to social change, economic strains, and sometimes wrenching political transformations.

This *Population Bulletin* looks at the region's recent declines in mortality and fertility and related transformations in marriage, family planning use, and educational attainment. It also looks at the effects of immigration and refugee movements within the region on the labor force and the age and sex structure of national populations.

PRB
POPULATION REFERENCE BUREAU

1875 Connecticut Avenue, NW, Suite 520
Washington, DC 20009-5728
202-483-1100
www.prb.org