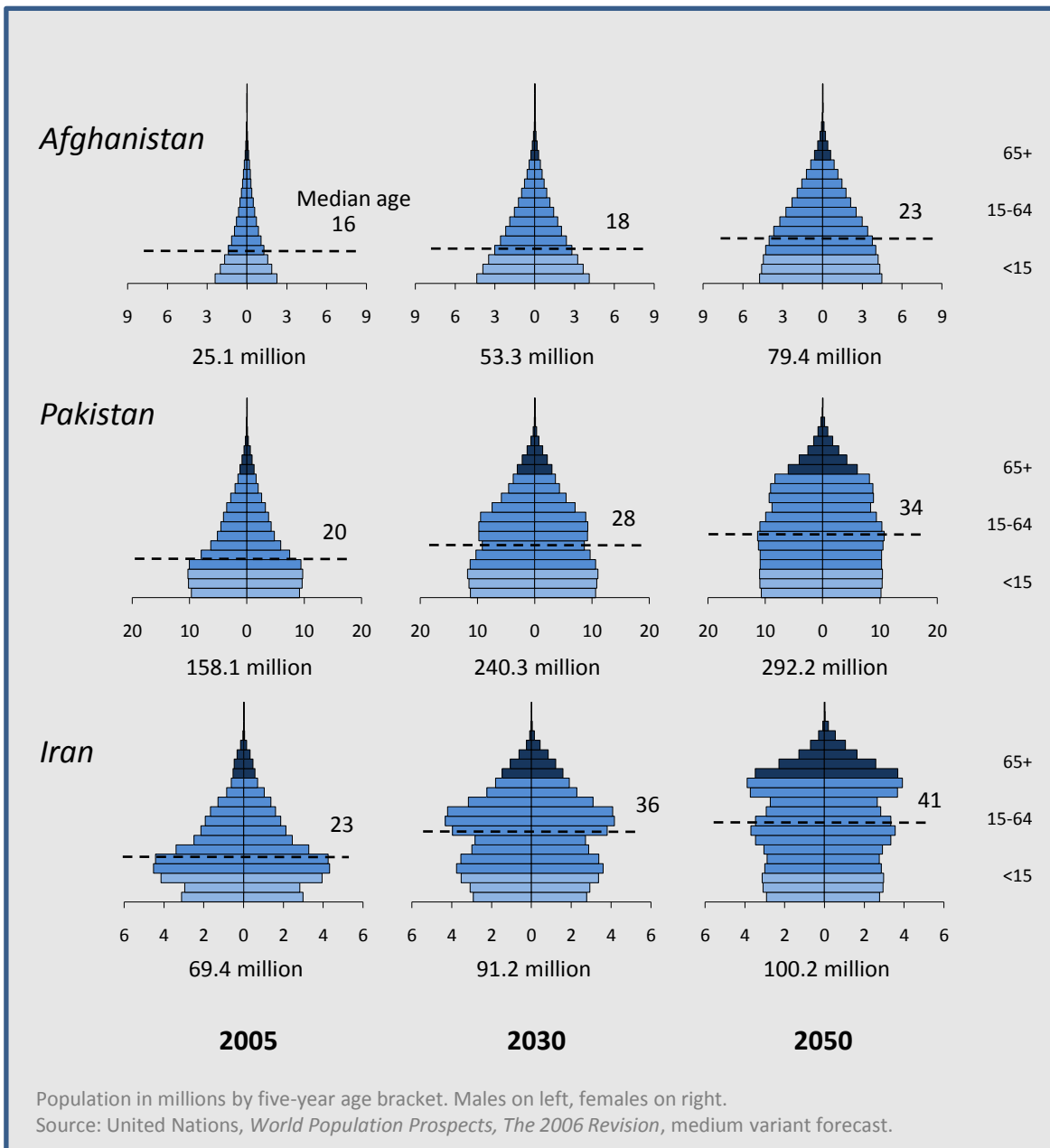




## Critical Demographics of the Greater Middle East: A New Lens for Understanding Regional Issues

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*Adele Hayutin*

# Highlights

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Demographic shifts within the greater Middle East directly affect the region's critical issues and should be central in any analysis of current developments and future trends in the region.

- With a population projected to grow from 600 million to 1.1 billion by 2050, the greater Middle East is one of the fastest growing regions in the world.
- While much of the developed world has fertility rates below replacement level (2.1), the Middle East has some of the world's highest fertility rates; some countries in the Middle East are projected to maintain "youth bulges" through 2030 and beyond.
- As many countries in Europe and Asia brace themselves for shrinking workforces in the coming decades, the labor force in most Middle Eastern countries will continue to grow through 2050.

This report provides a demographic lens on critical policy issues facing the world:

- **Not all "youth bulges" are created equal.** Starkly different fertility patterns across the Middle East will result in different patterns of youth predominance, with each profile creating unique challenges and opportunities for the governments of the region.
- The Middle East has the **largest refugee population in the world**, over 8 million by the end of 2007.
- As in the rest of the world, the pace of aging will vary dramatically across the region, depending on the pace and timing of fertility declines. Most urgently, countries such as Iran and Algeria must quickly adjust to **dramatic changes in their age structures**. Other countries such as Afghanistan and Yemen will remain among the world's youngest countries.
- The **population of the Palestinian Territories could surpass Israel's population before 2030**, further inflaming the ongoing conflict.
- The **explosive population growth in Pakistan and Afghanistan will likely continue**. Pakistan's population is projected to nearly double to 300 million by 2050, while Afghanistan's population, the region's youngest and fastest growing, will more than triple by 2050 to nearly 80 million.



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# Introduction

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The Middle East is at the center of many of the most critical issues facing the world today—our energy future, the risks of failing states, the fighting in Iraq and Afghanistan, the pressing need for economic development, the rising power of Iran, and the ongoing conflict between Israel and the Palestinian territories. Demographic shifts within the region directly affect these critical issues and should be central in any analysis of current developments and future trends in the region.

Demographic analysis reveals that there are some pivotal and dramatic changes in store over the next 20 to 40 years. Like the rest of the developing world, most of the Middle East is in the midst of a transition from high-fertility agrarian economies to low-fertility societies. Some countries in the Middle East will age surprisingly fast due to steep fertility declines, while others will increase their proportion of young adults dangerously quickly. These differential population age shifts have profound implications for economic development, international trade, migration, social well-being, political stability, and global security. Understanding the region's demographic developments and their implications will be critical for effective policy making in the region and in the world.

- The Middle East is **one of the fastest growing regions** in the world, with the population projected to grow from 600 million to 1.1 billion by 2050. The countries in the midst of the most dramatic population boom, including Afghanistan, Iraq and the Palestinian Territories, are also among the world's least stable.
- This region is characterized by **youth predominance**, as young adults (15-29) constitute 40%+ of the total adult population (15+) in the majority of Middle Eastern countries. It remains to be seen whether “youth bulge” countries will be able to harness the energies of their young populations through creating economic opportunities; the alternative outcome is far more bleak.
- Instability and conflict within the region have resulted in **massive movements across borders**, including large refugee populations moving within the region, and millions of migrants pouring into Europe in search of employment.

**While these broad trends characterize the region as a whole, the countries of the Middle East are tremendously diverse in their demographics, with starkly different population characteristics and trajectories often existing side-by-side in neighboring countries.** A geographic lens reveals some stark contrasts:

- “Western Asia” stretching from Pakistan to Israel, includes some one of the region's youngest countries, Afghanistan and Iraq, as well as one of the oldest, Israel.
- The “Arabian Peninsula” contains very small Bahrain and very large Saudi Arabia, as well as one of the region's richest, Kuwait, and one of the poorest countries, Yemen.
- “Northern Africa” includes Egypt, a country that is gradually aging due to its gradually declining fertility, as well as several countries like Tunisia and Algeria, that had much steeper fertility declines and will soon be aging faster than most other countries in the region, as well as most other developing countries.

# Introduction

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To facilitate analysis across the large, diverse geographic region, we created a new categorization of countries according to their demographic characteristics. These “age groups” are defined primarily by the timing and pace of fertility declines and the pace of aging.

<b>Youngest countries</b> Afghanistan, Yemen, Palestinian Territories, Iraq	Will continue to experience explosive growth, youth bulges, and high fertility
<b>Young, gradually aging countries</b> Pakistan, Syria, Jordan, Oman, Egypt, Saudi Arabia	Fertility has declined, but populations are still young and growing quickly
<b>Young, rapidly aging countries</b> Iran, Algeria, Libya, Morocco, Turkey, Tunisia	Have had dramatic drops in fertility, and face the dual challenges of being both still young and rapidly transitioning
<b>Already older countries</b> Lebanon, Israel	Have had historically lower fertility and will continue to age
<b>Older Gulf states</b> Bahrain, Kuwait, United Arab Emirates, Qatar	Unique patterns of worker migration make median age relatively high, though the number of people 65 and older remains low

The age groups listed above are described more fully in the following two pages. (Note also that we have continued to use this color coding scheme in most of the comparative charts that follow.)

Using this demographic lens, we highlight common trends that are likely to unfold across the region and show how these demographic trends intersect with critical issues of the region. We also identify a set of questions that stem from this demographic perspective.

## A New Lens for Understanding Regional Issues: "Age Groups" in the Greater Middle East

"Age Group"	Fertility (births/woman)	Median Age, % 65+	Population Growth, Youth Predominance	Implications
<b>Youngest:</b> Afghanistan Yemen Palestinian Territories Iraq	Above 4.5. Historically 6 or above.	Median age < 20. Will increase, but remain below 25 until 2030.  %65+ remains less than 5% until 2030; still <10% in 2050.	70-115% growth 2005-30. Among the fastest growing populations in the world; working-age populations will roughly double by 2030.  Youth predominance will continue for the next few decades.	<i>Rapid growth and continued predominance of young adults in the population will likely be hard to absorb economically and result in continued threat of instability.</i>
<b>Young, Gradually Aging:</b> Pakistan Syria Jordan Oman Egypt Saudi Arabia	3-4. Began to fall below 6 mostly within the last 15 years.	Median age 20-25. Will rise about 8 years by 2030, reaching between 28 and 33.  Will reach ~ 7% 65+ in 2030 and ~ 14% 65+ in 2050.	~50% growth 2005-30. Working-age populations are growing more rapidly at around 75% 2005-30.  Currently high youth predominance lessens by 2030.	<i>Though still rapidly growing, these countries are beginning to gradually age. Aging accelerates after 2030.</i>
<b>Young, Rapidly Aging:</b> Iran Algeria Libya Morocco Turkey Tunisia	2-3. Dramatic drops in the last 20 years, from highs around 7.	Median age 23-27. Poised to increase dramatically, going from the mid-20s today to the mid-30s by 2030.  4-6% 65+. Will increase sharply starting in the 2020s.	~25-50% growth 2005-30. Similar growth rates for working-age populations.  Currently high youth predominance lessens by 2030.	<i>For these countries, population growth has slowed and aging has accelerated. Their demographic transition to low-fertility societies will require swift adjustments.</i>
<b>Already Older:</b> Lebanon Israel	2-3. Has been below 6 since before 1955.	Median age 27-29. Relatively high due to earlier drops in fertility than other Middle Eastern countries.  Over 7% 65+ today .	20-40% growth 2005-30. Similar growth rates for working-age populations.  Relatively low youth predominance continues to fall.	<i>Israel and Lebanon have the largest share of 65+ in the region and will face continued aging of their populations over the coming decades.</i>
<b>Older Gulf States:</b> Bahrain Kuwait United Arab Emirates Qatar	2-3. Declined from about 7 in 1970s.	Median age 29-31. Median age is high because of foreign-born middle-aged workers.  Less than 5% 65+ today, reaching almost 20% by 2050.	40-65% growth 2005-30. Similar growth rates for working-age populations.  Relatively low youth predominance will continue to fall.	<i>The small, oil-rich countries of the Gulf had larger fertility declines over the last 40 years and should prepare for rapidly aging populations.</i>



## “Age Groups” in the Greater Middle East: Key Data Points

(see Appendix A for expanded data table)

Country Ranked by median age	Median Age years Change		Fertility # Change		Population mil mil % growth			Young Adults % of 15+		Age 65 % of Total Population		
	2005	2005-30	2005	1955-05	2005	2005-30		2005	2030	2005	2030	2050
<b>Youngest:</b>												
Afghanistan	16.4	+ 1.9	7.5	-0.2	25.1	28.2	112.4%	50.5%	49.1%	2.2%	2.4%	3.4%
Yemen	16.7	+ 4.9	6.0	-2.2	21.1	19.7	93.2%	53.5%	45.0%	2.3%	3.3%	5.9%
Palestinian Terr.	16.9	+ 5.8	5.6	-1.8	3.8	3.6	94.6%	48.9%	43.9%	3.1%	4.3%	7.3%
Iraq	18.9	+ 6.4	4.9	-2.4	28.0	19.4	69.2%	48.1%	38.9%	2.8%	4.7%	8.5%
<b>Young, Gradually Aging:</b>												
Pakistan	20.3	+ 7.9	4.0	-2.6	158.1	82.2	52.0%	47.5%	34.4%	3.9%	6.4%	10.8%
Syria	20.6	+ 8.6	3.5	-3.8	18.9	10.4	55.0%	51.2%	35.0%	3.2%	6.2%	14.1%
Jordan	21.1	+ 8.4	3.5	-3.9	5.5	3.0	54.3%	46.5%	34.4%	3.2%	6.2%	13.9%
Oman	22.5	+ 8.5	3.7	-3.5	2.5	1.4	54.2%	48.0%	31.2%	2.6%	7.3%	14.7%
Egypt	22.9	+ 7.0	3.2	-3.4	72.9	31.2	42.9%	43.7%	33.1%	4.8%	8.6%	13.6%
Saudi Arabia	23.3	+ 6.7	3.8	-3.4	23.6	13.7	58.0%	43.4%	33.1%	2.8%	6.6%	13.0%
<b>Young, Rapidly Aging:</b>												
Iran	23.4	+ 12.4	2.1	-4.9	69.4	21.7	31.3%	48.9%	27.8%	4.5%	8.5%	17.8%
Algeria	24.0	+ 10.2	2.5	-4.8	32.9	11.9	36.1%	45.6%	28.7%	4.5%	8.7%	17.6%
Libya	24.1	+ 8.4	3.0	-3.8	5.9	2.5	42.7%	45.7%	31.7%	3.8%	8.2%	17.7%
Morocco	24.3	+ 9.0	2.5	-4.7	30.5	8.8	28.7%	42.5%	29.3%	5.2%	9.9%	16.6%
Turkey	26.7	+ 8.8	2.2	-4.7	73.0	19.5	26.7%	38.7%	27.0%	5.6%	10.8%	18.4%
Tunisia	26.7	+ 11.0	2.0	-4.9	10.1	2.4	24.0%	40.8%	24.7%	6.3%	11.5%	20.8%
<b>Already Older:</b>												
Lebanon	27.1	+ 7.6	2.3	-3.4	4.0	0.9	22.8%	36.7%	27.4%	7.2%	11.3%	17.7%
Israel	28.8	+ 5.2	2.9	-1.3	6.7	2.5	36.9%	33.2%	28.8%	10.1%	14.8%	19.4%
<b>Older Gulf States:</b>												
Bahrain	28.8	+ 7.8	2.5	-4.5	0.7	0.3	41.4%	35.5%	25.6%	3.1%	11.5%	18.6%
Kuwait	29.2	+ 7.5	2.3	-4.9	2.7	1.6	58.3%	37.0%	25.6%	1.8%	8.5%	19.5%
UAE	29.4	+ 7.1	2.5	-4.5	4.1	2.6	64.5%	39.8%	26.1%	1.1%	4.4%	18.3%
Qatar	31.1	+ 4.8	2.9	-4.0	0.8	0.4	45.9%	32.5%	25.7%	1.3%	6.8%	16.8%
<b>Middle East 22 countries</b>					<b>600.2</b>	<b>287.8</b>	<b>47.9%</b>	<b>45.4%</b>	<b>33.1%</b>			
<b>% of World</b>					<b>9.2%</b>	<b>16.0%</b>						

Source: United Nations 2006 World Population Prospects medium variant forecasts



## Graphic Overview of the Five “Age Groups”

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- Demographic Drivers
- Pace of Aging
- Population Growth

The following section provides an overview of the key demographic variables along with charts showing each country in its age group. Chart line colors correspond to the age group lens.

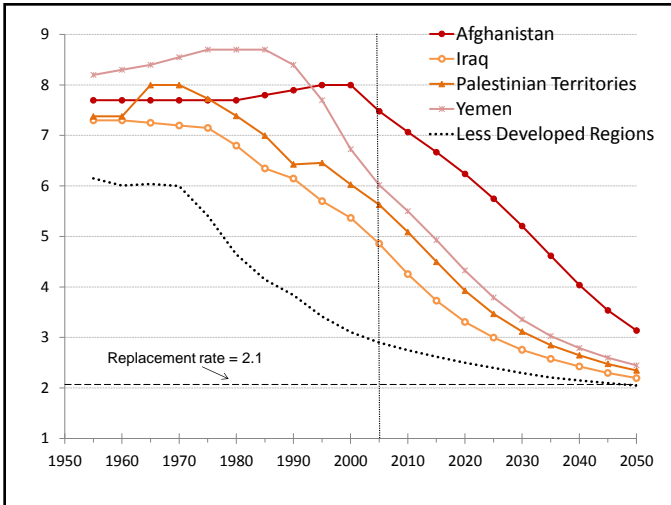
Except where noted, all data are from the United Nations, *World Population Prospects 2006 Revision*, medium variant forecasts.

# Demographic Drivers – Fertility

## Fertility by Age Group

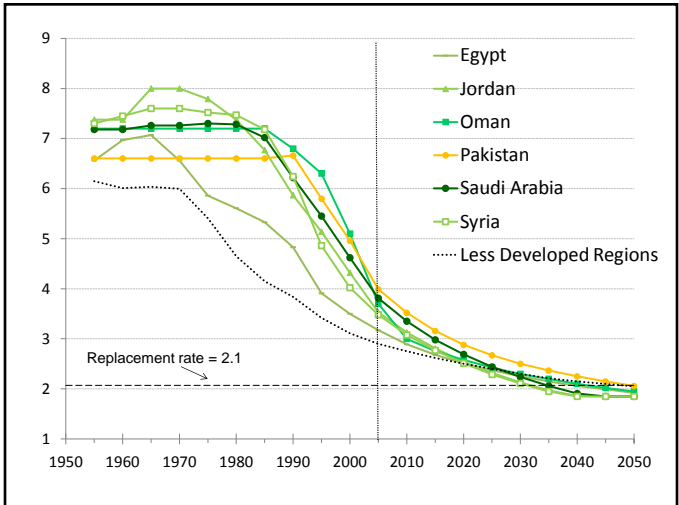
### Youngest

Fertility (Births per Woman)



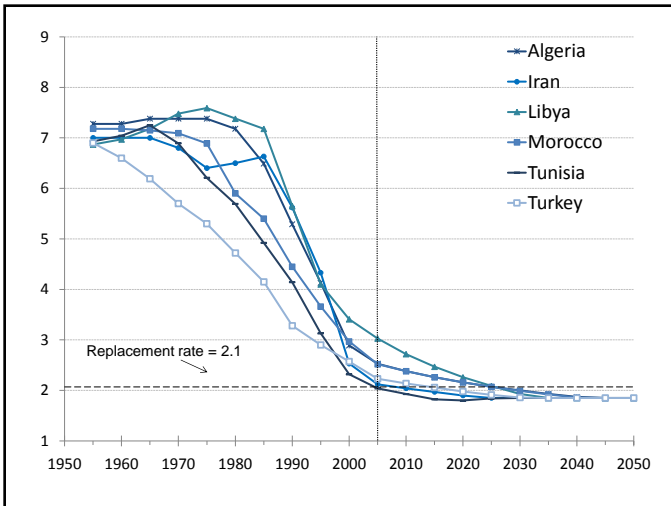
### Young, Gradually Aging

Fertility (Births per Woman)



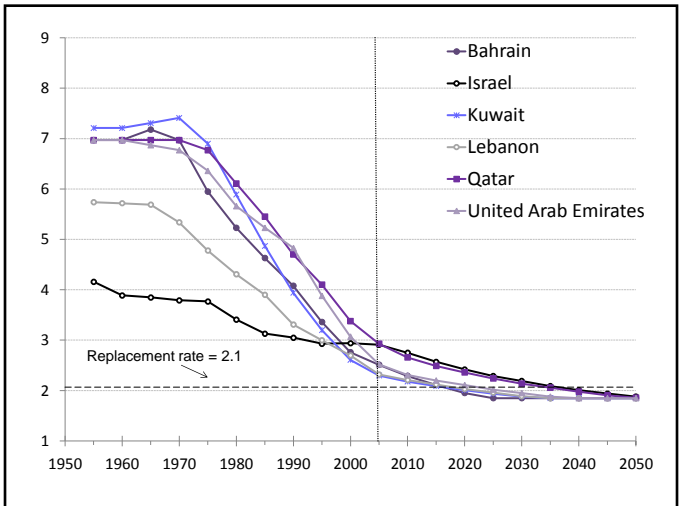
### Young, Rapidly Aging

Fertility (Births per Woman)

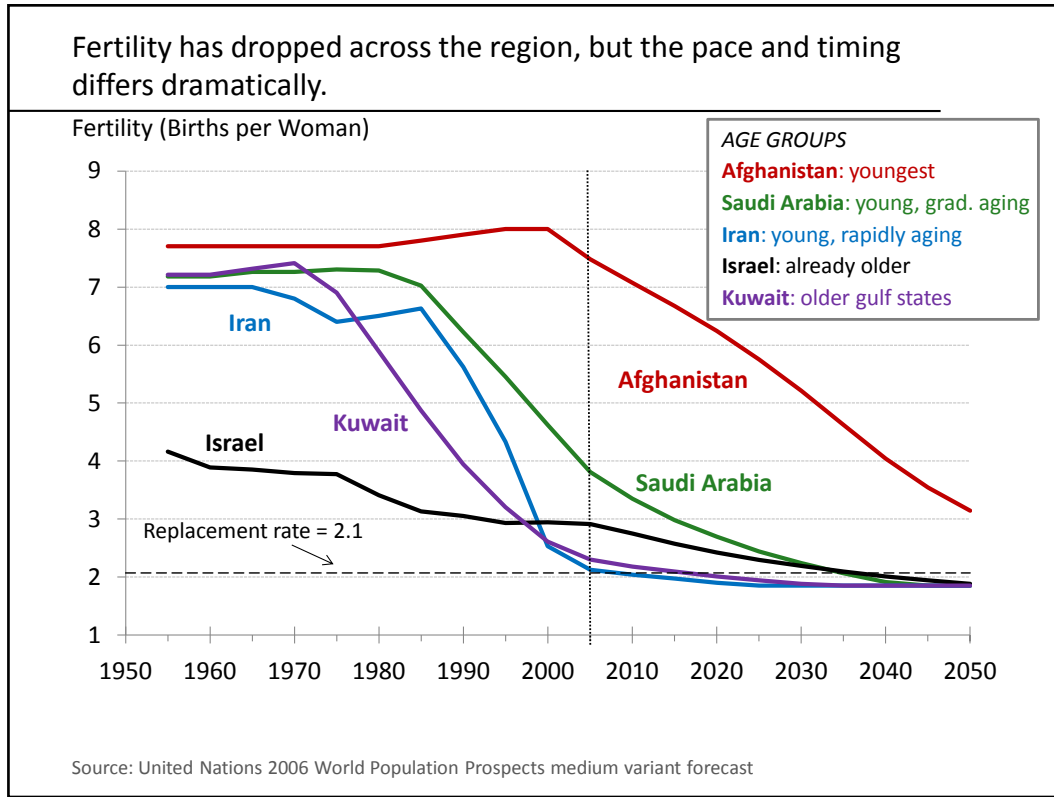


### Older

Fertility (Births per Woman)



## Demographic Drivers – Fertility



**Fertility, the primary demographic driver, has declined sharply across the region in all but the youngest countries, where the fertility declines have been more gradual.**

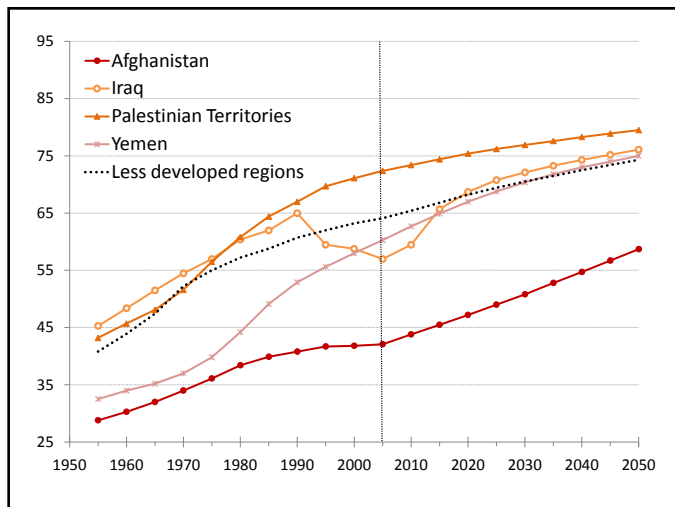
- Afghanistan's 2005 fertility rate of 7.5 births per woman is the highest of any of the **youngest** countries, and among the highest in the world today. All the youngest countries have and continue to have high fertility; UN medium variant forecasts assume they will drop steadily to around 3 or below by 2050.
- In Saudi Arabia and most of the **young, gradually aging** countries, fertility first dropped below 6 in the 1990s, and it remains above three births per woman today. Egypt's fertility decline began earlier and has been more gradual.
- Iran's fertility decline, from 6.6 to 2.5 in 15 years, is among the fastest in the world. The other **young, rapidly aging** countries also saw swift declines beginning in the 80s and 90s. Turkey's fertility has been gradually declining since 1950.
- Israel's fertility has historically been lower than other countries in the region. Israel's fertility, currently close to 3 births per woman, is no longer lowest in the region.
- Kuwait and the **older Gulf states** saw dramatic drops in fertility beginning in the 1970s.

# Demographic Drivers – Longevity

## Life Expectancy by Age Group

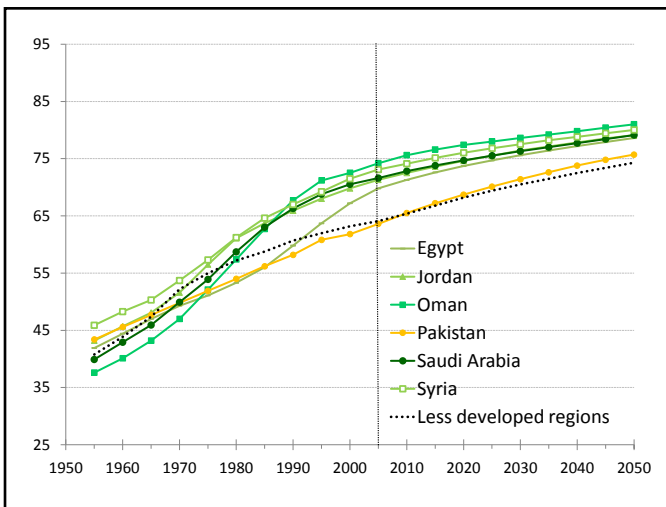
### Youngest

Life Expectancy at Birth (Years)



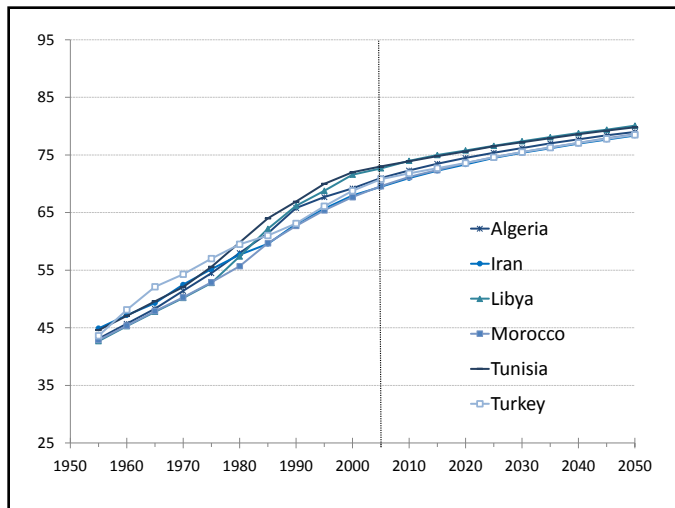
### Young, Gradually Aging

Life Expectancy at Birth (Years)



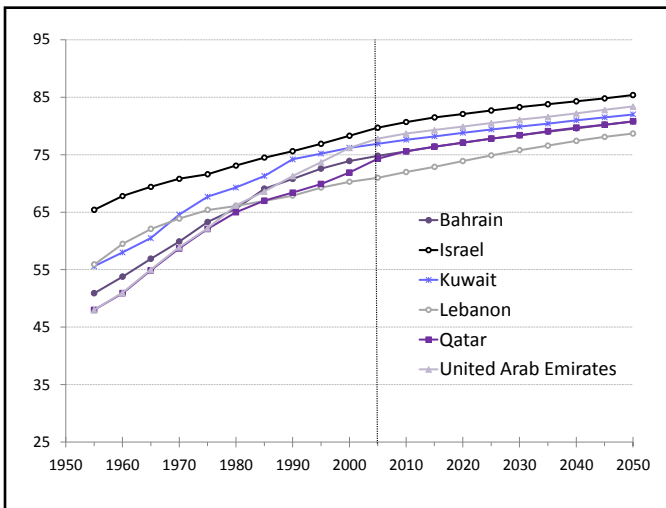
### Young, Rapidly Aging

Life Expectancy at Birth (Years)

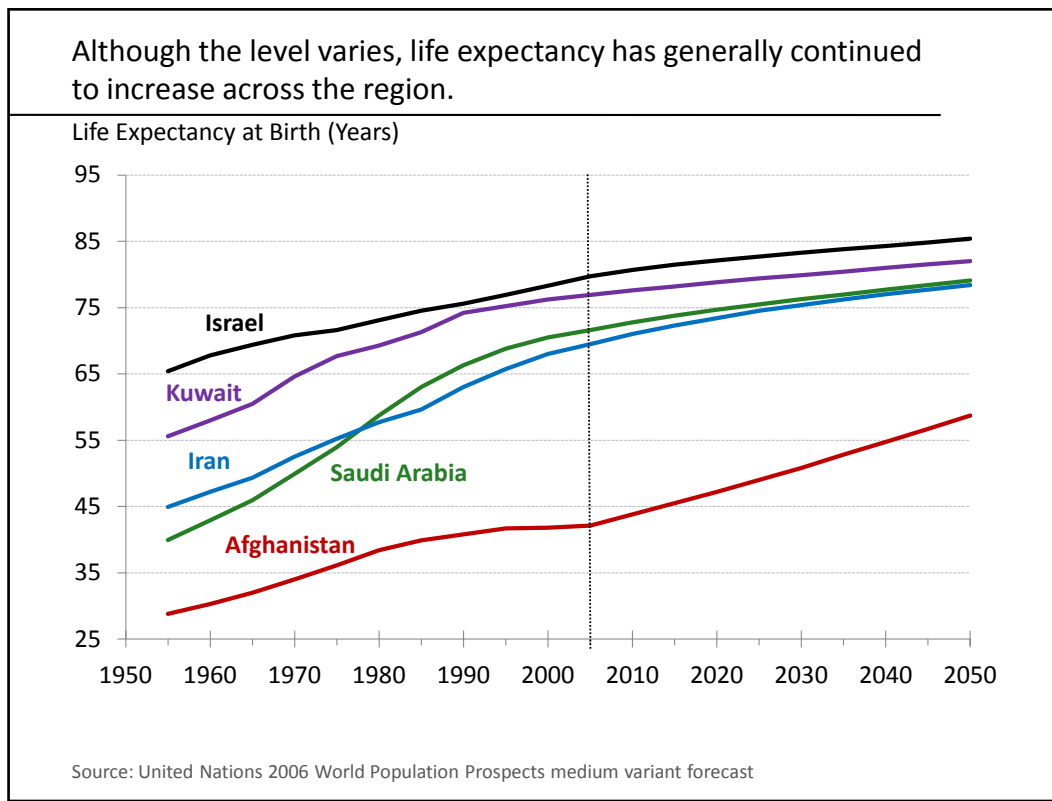


### Older

Life Expectancy at Birth (Years)



## Demographic Drivers – Longevity



**Life expectancy in the Middle East ranges from a low of 42 in the case of Afghanistan, to near 80 in Israel.**

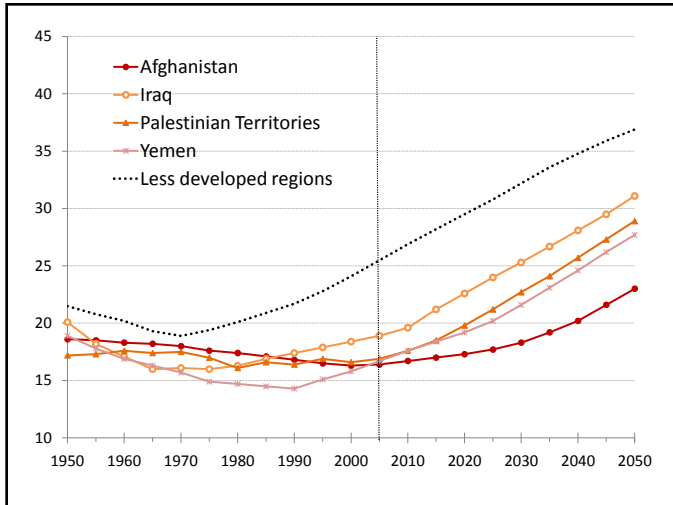
- Afghanistan's life expectancy of 42 is one of the lowest in the world; only 4 countries, all in sub-Saharan Africa, are lower.
- Several of the **young, gradually aging** countries, including Saudi Arabia, saw swift increases in life expectancy in the 1970s and 80s. All are now well above 65, with the exception of Pakistan which hovers at the less developed region average of 64.
- Iran and the other **young, rapidly aging** countries have seen increases in life expectancy of 25-30 years since 1955.
- Israel, Lebanon, and Kuwait were the only countries in the region with life expectancies above 55 years in 1955.

# Pace of Aging – Median Age

## Median Age by Age Group

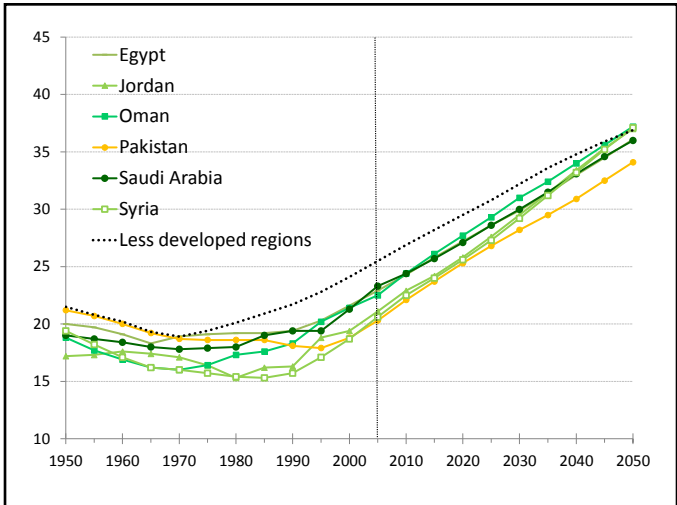
### Youngest

Median Age (Years)



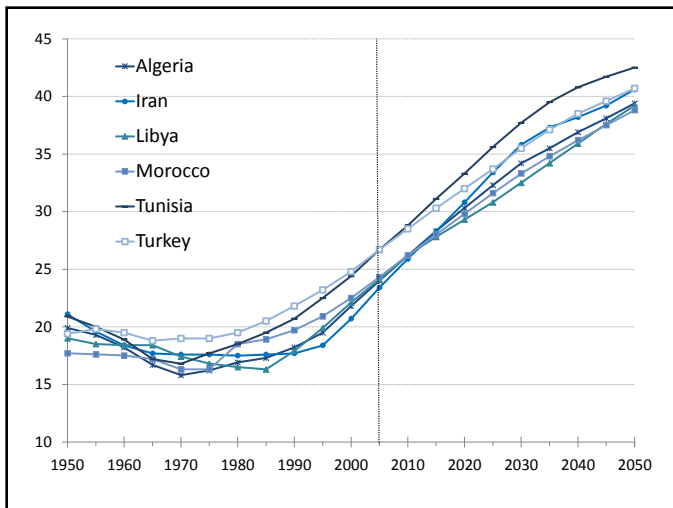
### Young, Gradually Aging

Median Age (Years)



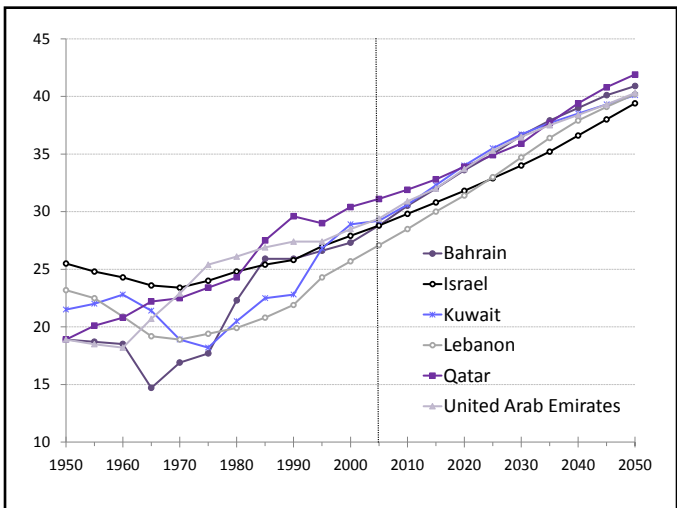
### Young, Rapidly Aging

Median Age (Years)



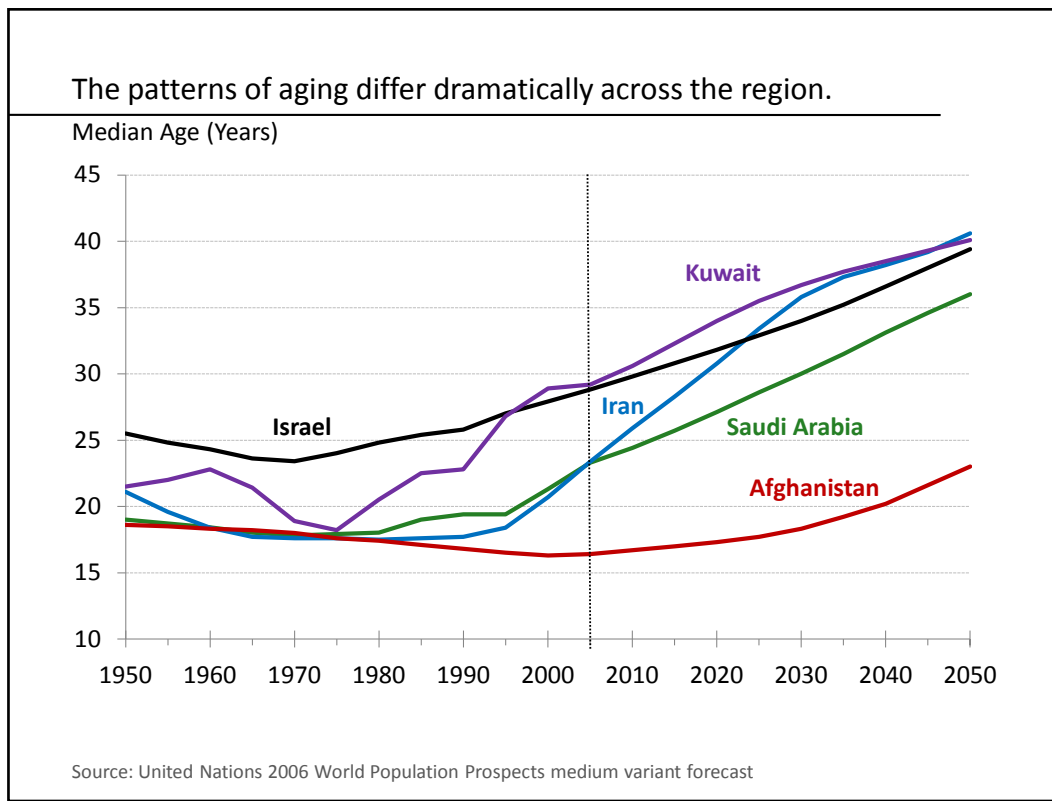
### Older

Median Age (Years)





## Pace of Aging – Median Age



### The Middle East has the world's second youngest population, behind sub-Saharan Africa.

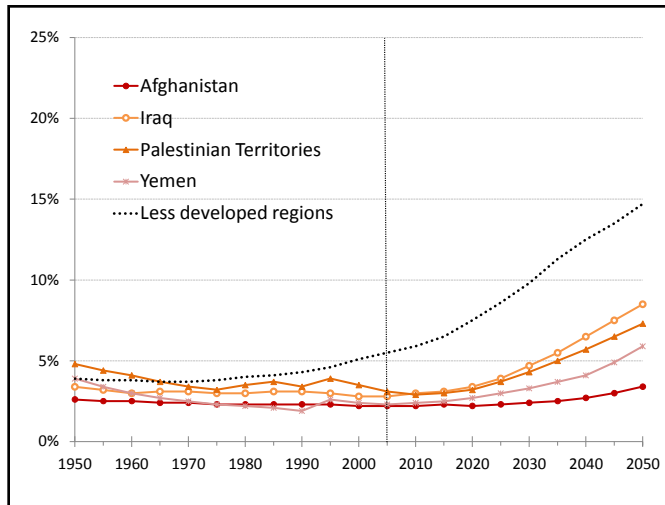
- All of the **youngest** countries have median ages well below the average for the less developed regions. With half its population under 16, Afghanistan has the region's youngest population.
- Saudi Arabia and the **young, gradually aging** countries have seen median age start to rise in the last decade, the result of recent fertility declines and longevity gains of the past few decades.
- In Iran and the **young, rapidly aging** countries, median age has risen steeply over the last decade, a result of the rapid drops in fertility in the 80s and 90s and simultaneous increases in life expectancy. Iran's projected increase of 12.4 years from 2005 to 2030 is the second fastest in the world, behind only South Korea.
- In Kuwait and the other **older Gulf states**, median age varied wildly with the influx of foreign born workers. Their current median age is higher than others in the region because of this worker-heavy age structure (see Migration section).
- Israel and Lebanon have had gradually increasing median ages since 1970; by 2030 Israel's median age will have increased by more than 5 years. Lebanon will age slightly more quickly and is projected to overtake Israel in median age by 2030.

# Pace of Aging – Percent 65+

## Percent 65+ by Age Group

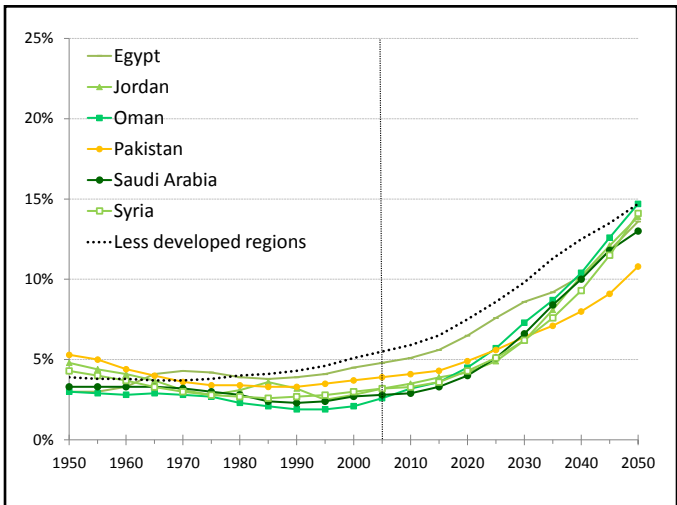
### Youngest

Percent 65+



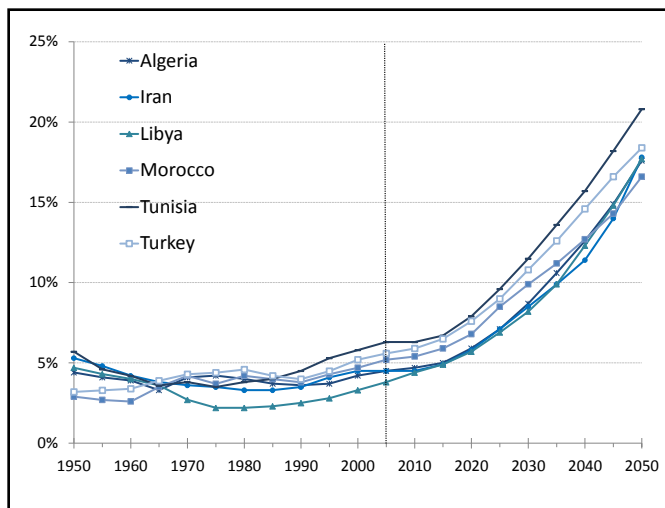
### Young, Gradually Aging

Percent 65+



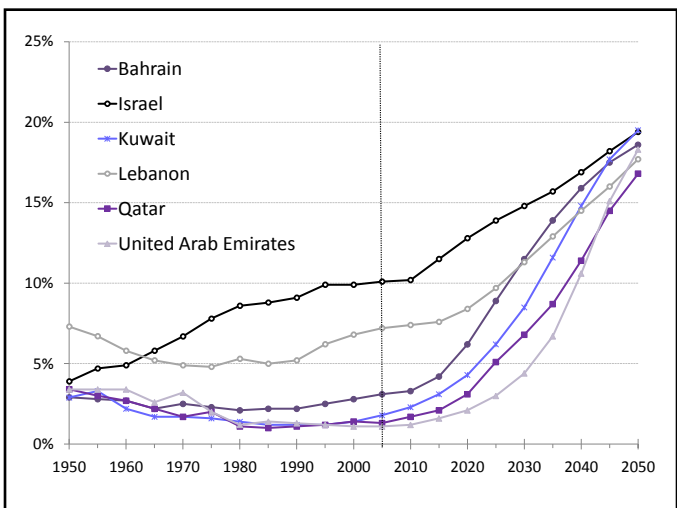
### Young, Rapidly Aging

Percent 65+

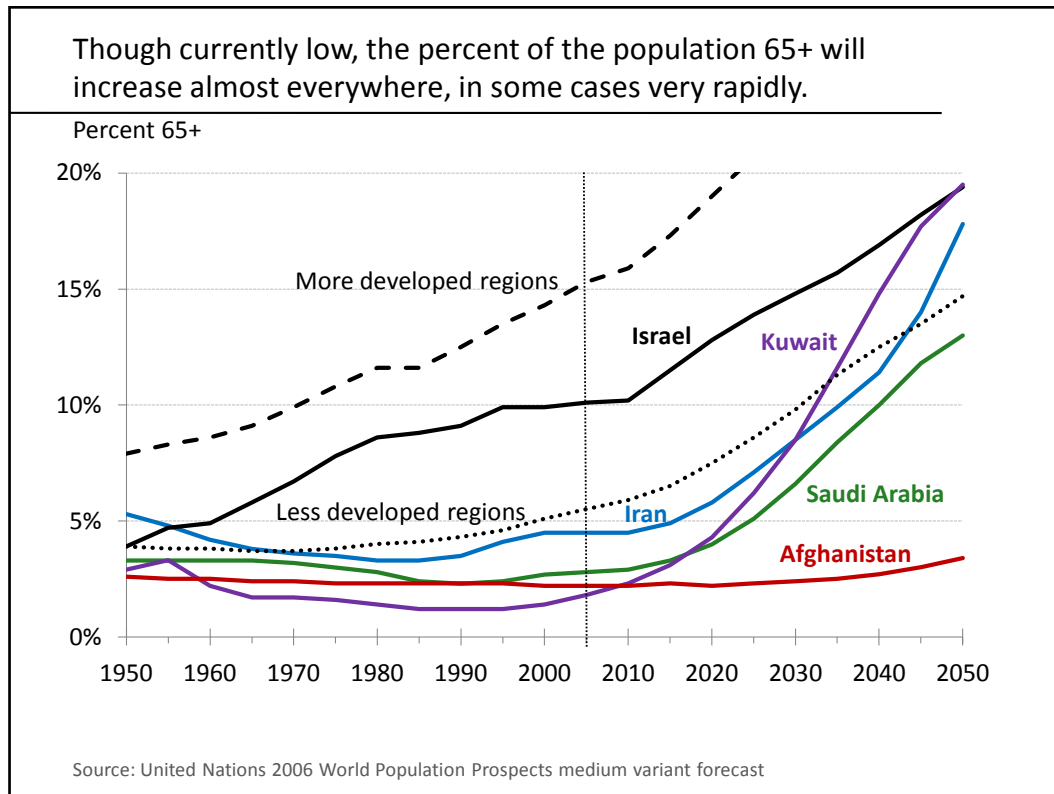


### Older

Percent 65+



## Pace of Aging – Percent 65+



**Though currently low, the share of the population age 65 and older in this relatively young region will increase almost everywhere, with steep increases in the countries which had steep fertility declines and large gains in life expectancy.** Although the share will remain low over the next 20 years or so, the pace of aging will accelerate and by 2050 more than half the countries in the region will have shares higher than the 14.7% for less developed countries overall.

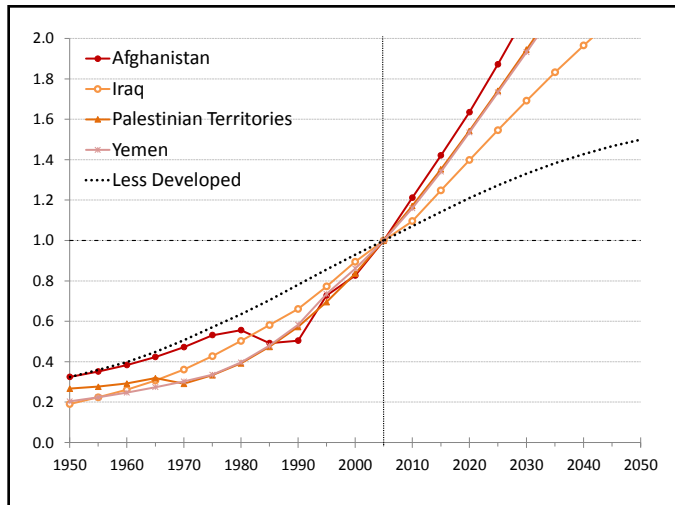
- The proportion of the population over 65 in the youngest countries remains extremely low, especially in Afghanistan. Nevertheless, because of the explosive population growth among the **youngest** countries, the absolute numbers of 65+ will also increase dramatically.
- In Saudi Arabia the %65+ will accelerate in the 2030s; by then close to 7% of the population will be 65+.
- In Iran, one of the fastest aging countries, the %65+ will increase from less than 5% in 2005 to 18% by 2050.

# Population Growth

## Population Growth by Age Group

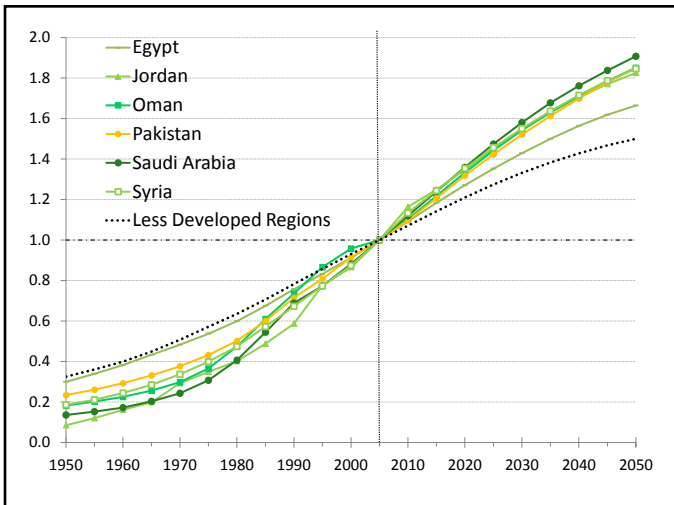
### Youngest

Population Indexed to 2005: 2005=1.0



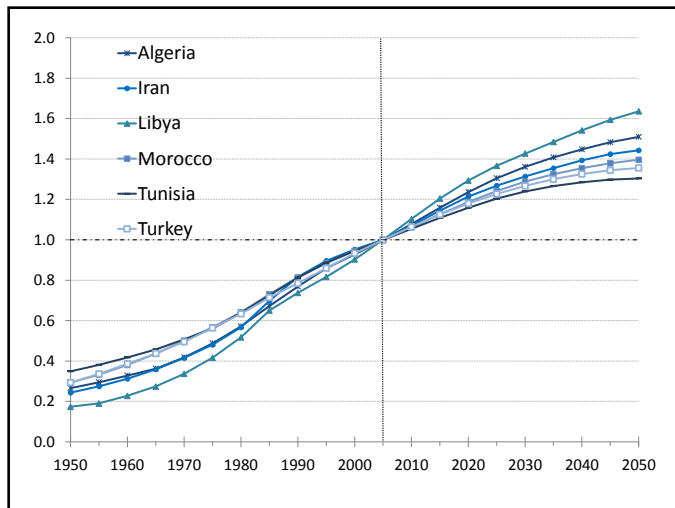
### Young, Gradually Aging

Population Indexed to 2005: 2005=1.0



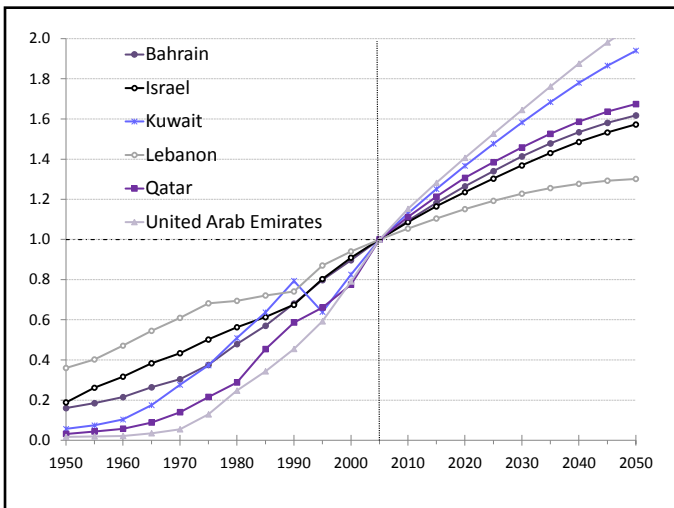
### Young, Rapidly Aging

Population Indexed to 2005: 2005=1.0

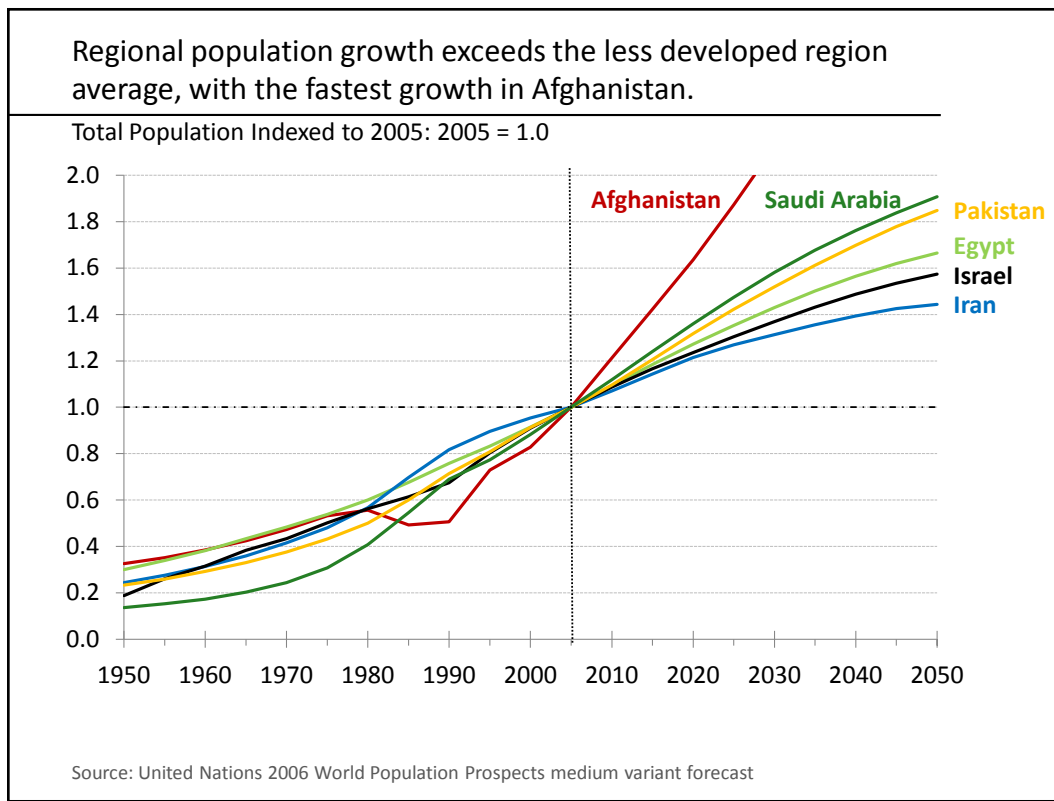


### Older

Population Indexed to 2005: 2005=1.0



# Population Growth



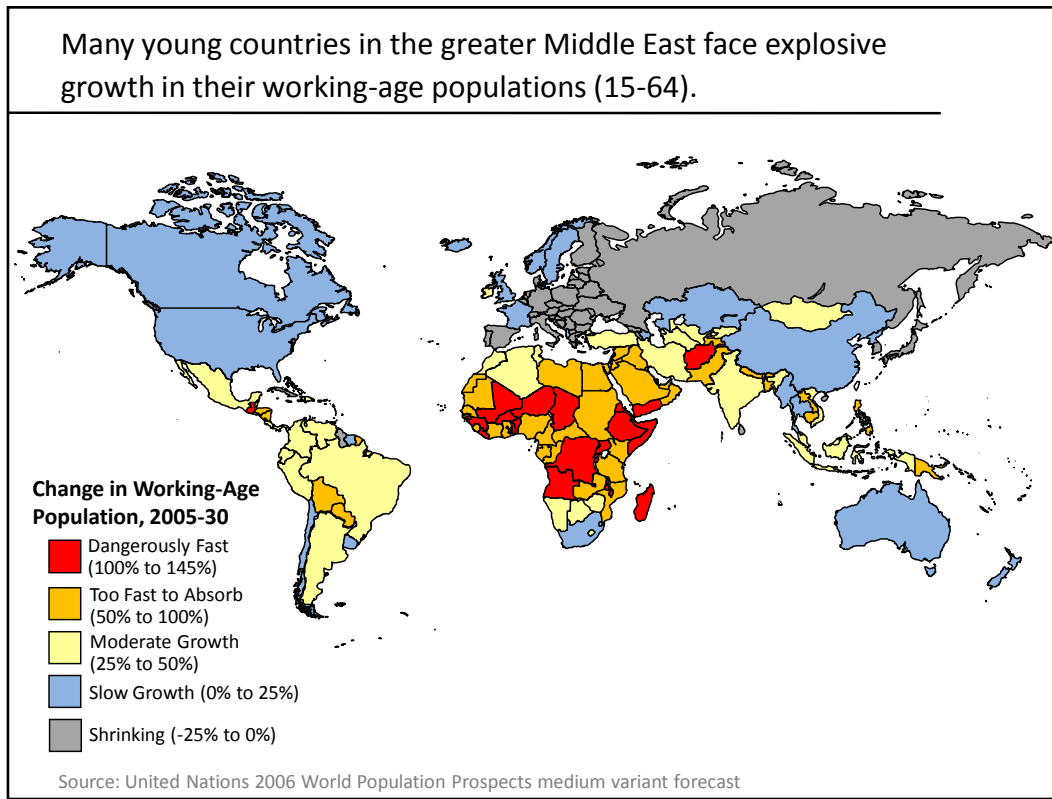
**Explosive population growth is a defining characteristic of the greater Middle East.** Since 1950, due largely to high fertility rates, the population of the Middle East quadrupled, from 150 million to 600 million in 2005. A further 77% increase to 1.1 billion is projected for 2050. The region is growing much faster than other less developed regions and will grow from 9% share of world total population in 2005 to about 12% by 2050.

The region's population is projected to grow by about 50% from 2005 to 2030, and another 20% by 2050. Due to the wide variation in fertility rates, population growth rates vary dramatically across the countries.

- The **youngest countries** will see a near doubling of their populations by 2030 and tripling by 2050. Notably, the populations in Afghanistan and Yemen will double by 2030, reaching 53 million and 41 million respectively,
- Population in the **young gradually aging countries** (with current fertility rates in the 3 to 4 range) is projected to increase by around 50% by 2030. Pakistan's population is projected to grow by 82 million reaching 240 million by 2030. This increase will make Pakistan the world's fifth most populous country. Saudi Arabia is projected to have a 58% increase to 37 million by 2030.
- **Young but rapidly aging countries** (with current fertility of 2 to 3) will see population growth of about 30%. Turkey, the most populous in this age group, is projected to see an increase of 20 million. Iran is also projected to add about 20 million bringing its total population to 91 million by 2030.
- **The older countries will have** much slower growth, with Lebanon growing most slowly and growth in the small Gulf States ranging from 40% to 60%.

Overall, the Middle East is projected to add roughly 290 million people from 2005 to 2030, with the projected gains highly concentrated in a few countries; the three biggest population gains—in Pakistan (+82 million), Egypt (+31), and Afghanistan (+28)—together account for 50% of the region's total gain. Three other countries—Iran, Iraq and Yemen—will each gain about 20 million people.

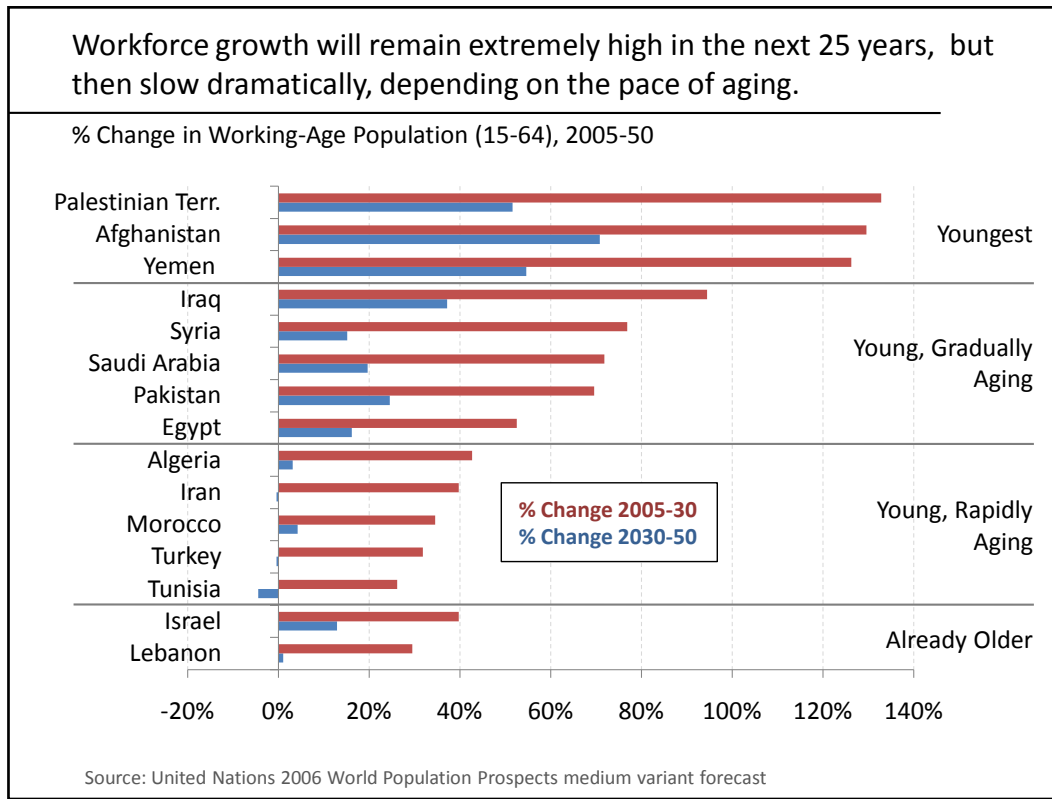
# Population Growth



A critical economic challenge facing the fast-growing populations of the Middle East is how to absorb the huge working-age population and provide economic opportunities, jobs, and housing. While workforce growth in the advanced economies is generally a positive indicator for economic growth, for many of the youngest countries, growth in working-age population will be faster than their economies can absorb. For many of these countries, this growth may be a political and economic burden rather than a potential economic stimulus.

- The **youngest countries** will see continued explosive growth in their working-age populations. Afghanistan, Yemen and the Palestinian Territories are projected to have gains of around 130%, placing them in the “dangerously fast” category of growth.
- Growth in the **young gradually aging countries**, averaging 66%, is still considered too much to absorb.

# Population Growth



Due to declining fertility already underway, working-age population growth will slow everywhere over the next half century. Over the 25 years from 2005 to 2030, the Middle East region is expected to add about 220 million people of working age, a 59% increase. In the subsequent 20 years, 2030 to 2050, working-age population is projected to increase by 110 million or just 19%. These growth rates are significantly faster than the rates for less developed regions over all.

- Working-age population growth will slow but remain extremely high in the **youngest countries**.
- In the **young gradually aging countries**, growth after 2030 will slow from 66% to a more manageable rate of around 21%.
- In the **young rapidly aging countries**, the steep fertility declines of the past 30 years will result in little or no growth in working-age population after 2030.

In addition to wide variations in growth across the region, there are also wide variations in labor force participation by men and women. In most of the Middle East female labor force participation has been increasing, but remains significantly lower than male labor force participation.



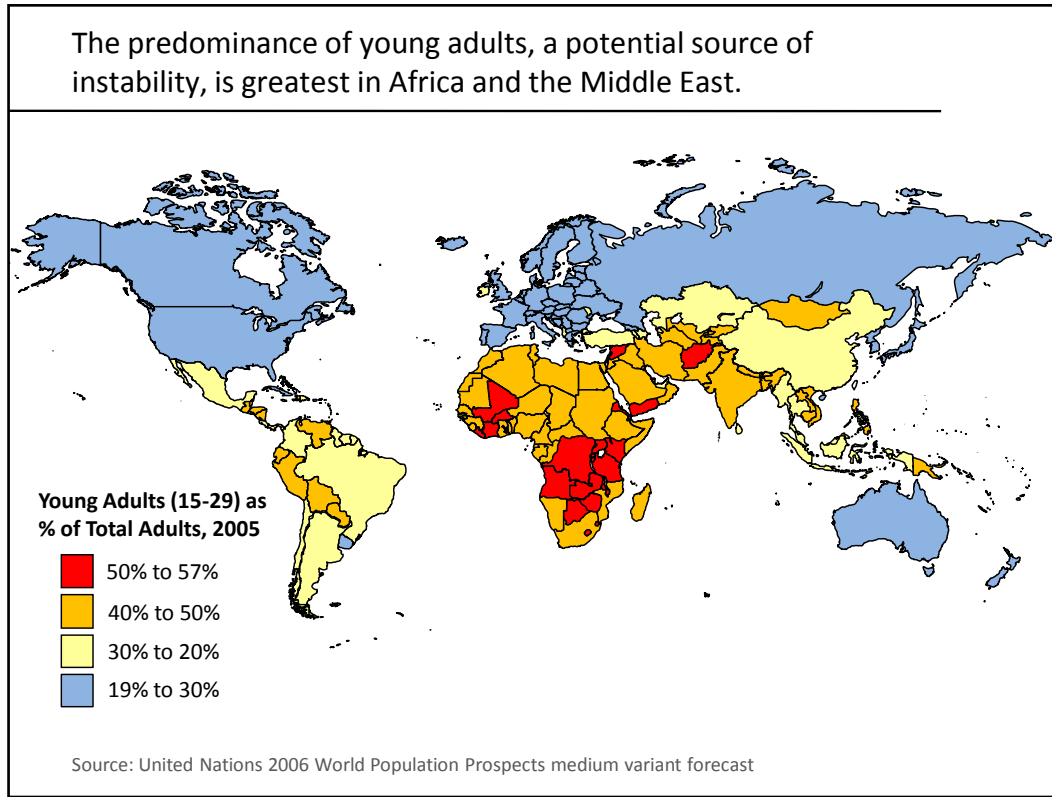


# Youth Bulge

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# Youth Bulge



**Young adults (15-29) constitute 40% or more of the total adult population (15+) in the majority of Middle Eastern countries. This demographic profile, known as “youth bulge,” is correlated with political instability and civil unrest.**

- Yemen, Afghanistan, and the Palestinian Territories currently have the most pronounced youth bulges, with roughly 50% of their adult populations aged 15 to 29.
- Richard Cincotta and other scholars have documented that youth bulges heighten risk of civil conflict. According to Cincotta, youth bulge countries in the 1990s were more than two times more likely to experience civil unrest than countries with lower proportions of young adults. (Cincotta, 2003)

Youth bulges can also create surges in economic growth, if the economic, political and social conditions are favorable, and if the potential of youth populations can be harnessed.

- For example, the tiger economies of Asia, which were characterized by youth predominance during their boom years, were able to generate a “demographic dividend” from the increasing share of workers in their populations.
- The key to reaping potential youth bulge benefits lies in modifying economic and social institutions to mobilize swelling working-age populations.
- Youth bulge countries in the Middle East, currently plagued by some of the world’s highest rates of unemployment, will face unique challenges in attempting to capitalize on the increasing number and share of workers. (World Bank, 2007)

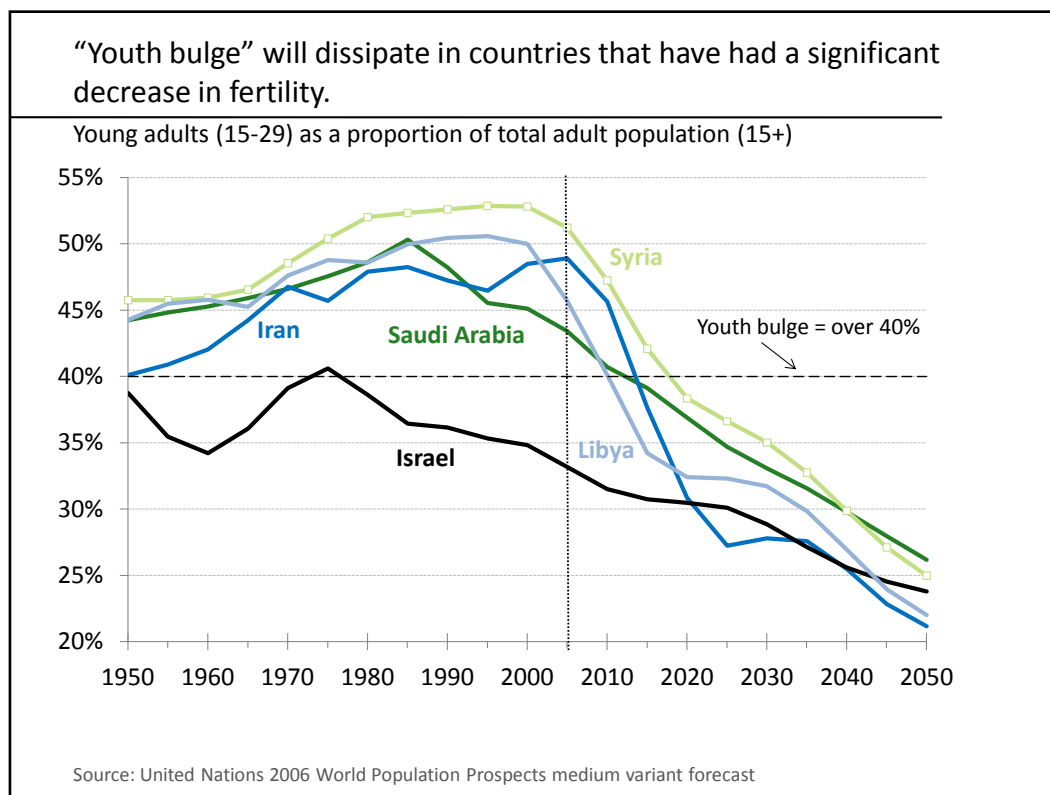
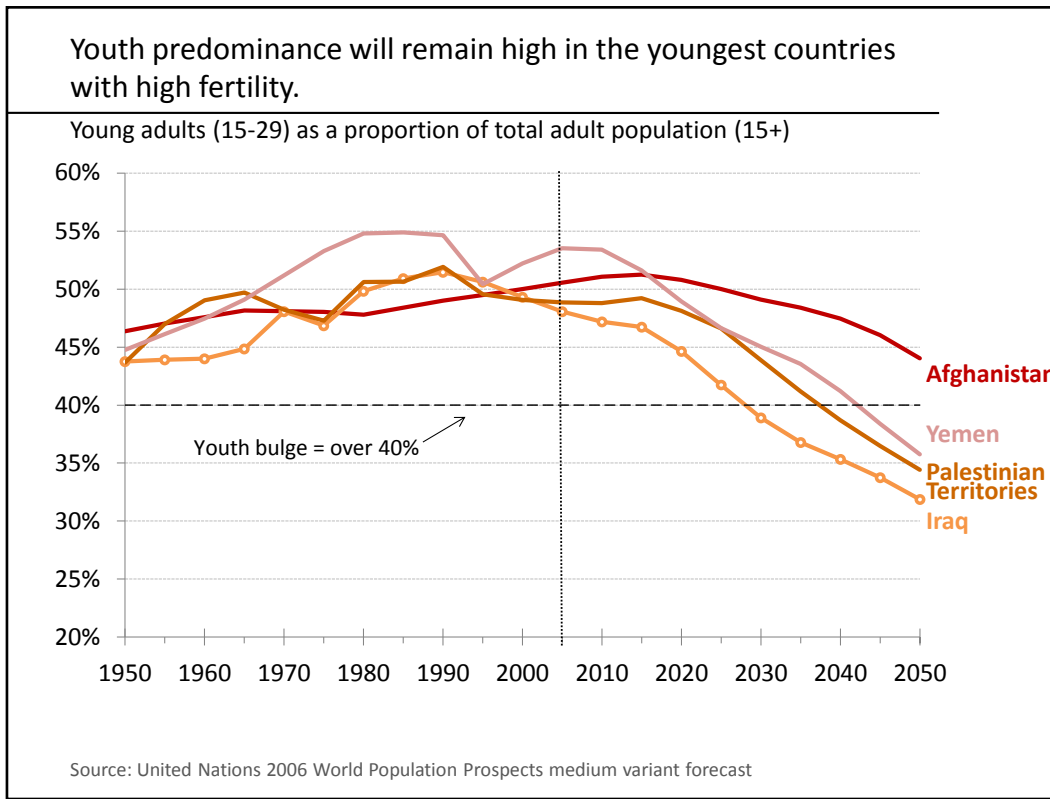
# Youth Bulge

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**Because fertility rates vary among countries with high youth predominance, not all of the current youth bulge countries will remain young.**

- In the **youngest** countries, such as Afghanistan and the Palestinian Territories, the percentage of young adults above 40% will persist in the coming decades.
- In **young, gradually aging** countries, such as Syria and Saudi Arabia, as well as **young, rapidly aging** countries, such as Iran and Libya, the currently high youth predominance will dissipate by 2030.
- Youth predominance in the **older** countries, such as Israel and the Gulf states, is already low and will continue to fall.

# Youth Bulge



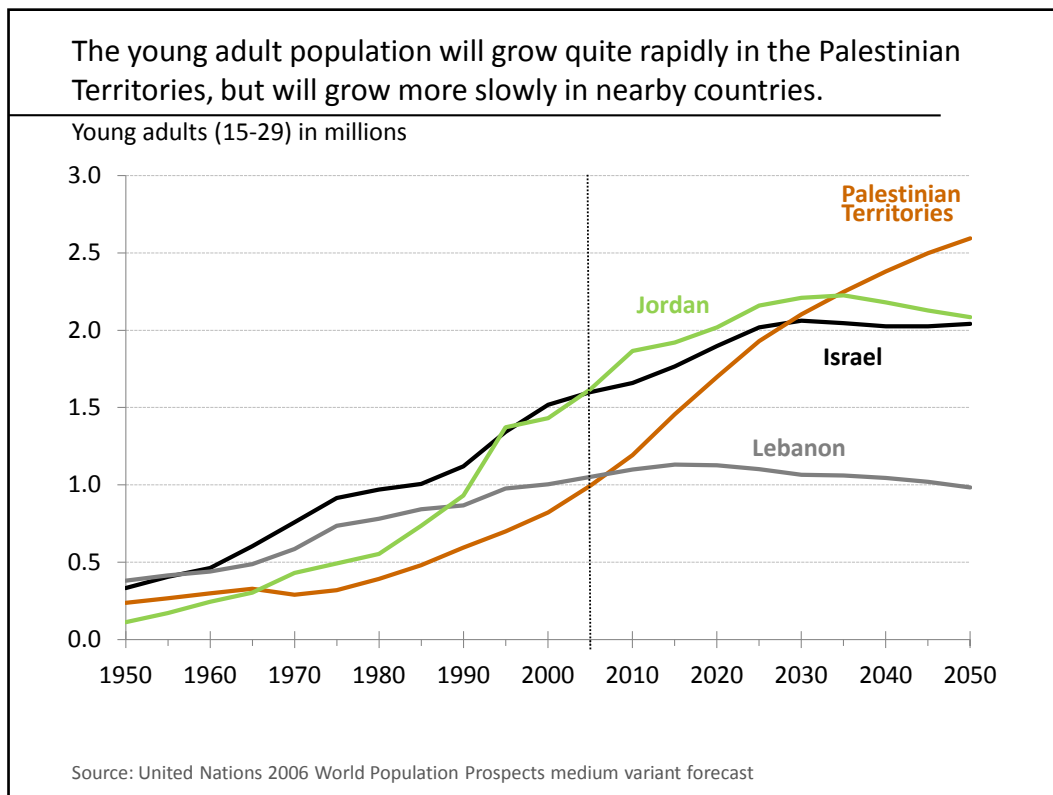
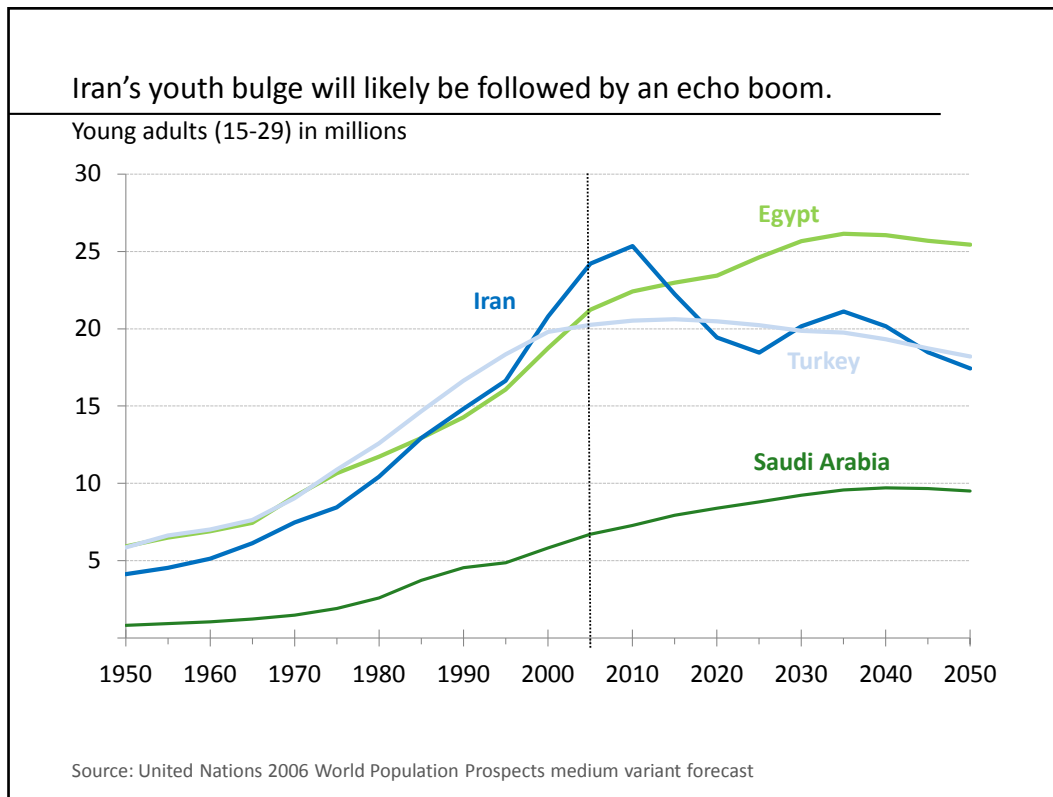
# Youth Bulge

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**Countries that experienced steep fertility declines, such as Iran, will face “echo bulges” consisting of youth bulge offspring. Scholars are divided on the implications of this volatility in the percentage of young adults.**

- Richard Jackson argues that the rise and fall, and rise again, of the number of young adults in countries like Iran may create greater risk of instability than those countries whose youth populations level off gradually over time, such as Egypt and Turkey. (Jackson, 2008)
- Richard Cincotta and others believe that the overall decline in the share of young adults and progression through the “demographic transition” will help reduce the risk of civil conflict in Iran and other countries with similar profiles. (Cincotta, 2003)

# Youth Bulge

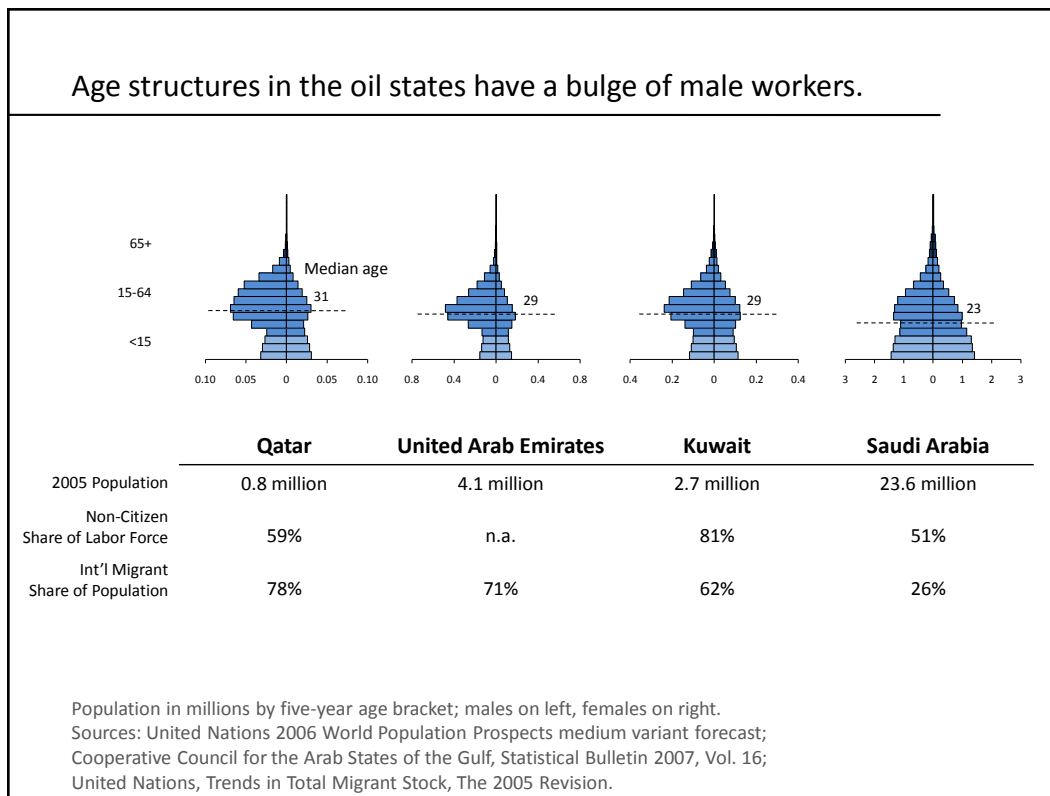






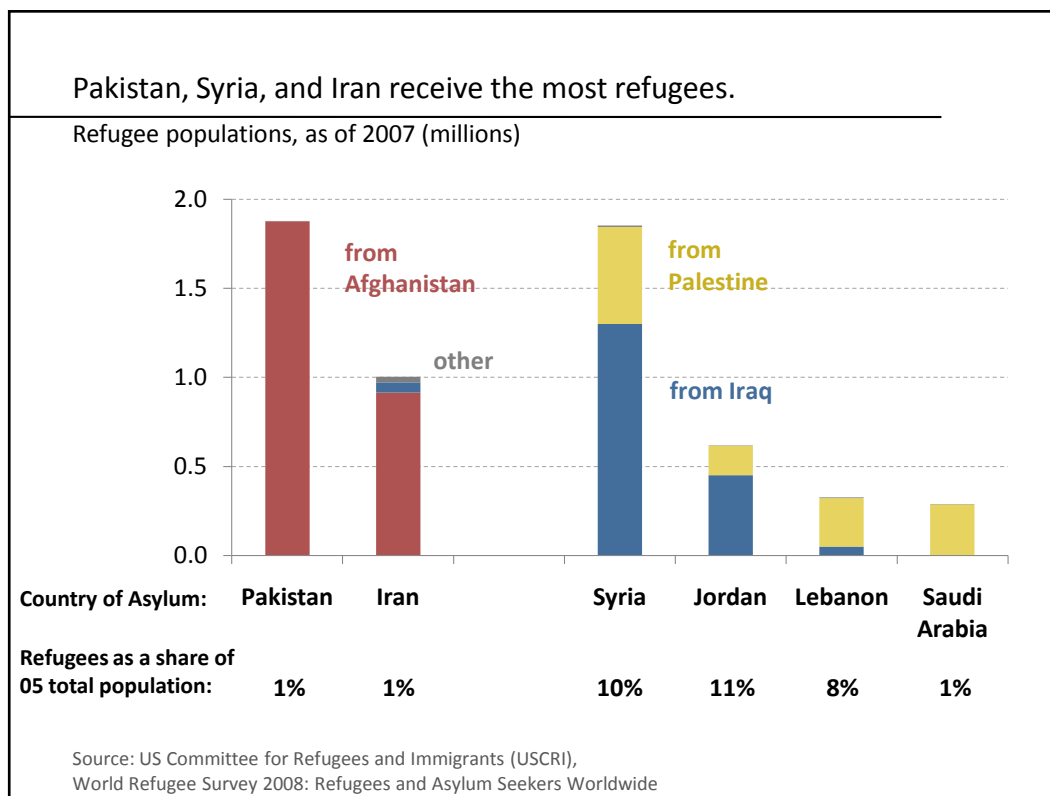
# Migration

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**The Middle East is a region of considerable internal and external migration, fueled by people seeking economic opportunities or political refuge.**

- Since the 1970s, millions of foreign workers have flocked to the oil-rich Persian Gulf states in search of jobs.
  - These non-citizen workers, mostly unaccompanied young men from India, Bangladesh, Indonesia, Pakistan, the Philippines, Egypt, and Yemen, now make up a considerable share of the total labor force in Gulf states – including 59% in Qatar, 81% in Kuwait, and 51% in Saudi Arabia. (GCC, 2007)
- In recent decades, large communities of people from the Middle East moved to Europe, particularly France and Germany, where a “youth deficit” created employment opportunities.
  - In 2004, about one-third of France’s 3.3 million foreigners were from Morocco, Algeria, Turkey, and Tunisia. (PRB, 2007)
  - In 2006, residents from Middle Eastern and North African countries accounted for about one-third of Germany’s foreign population of 6.9 million. (PRB, 2007)
  - The rising proportion of youths competing for jobs in the Middle East will likely increase pressure to emigrate to Europe and other regions in the coming years.
- According to a 2003 Brookings report, radical youth elements in the past decade have also fled to Bosnia, Chechnya and Kashmir to join “jihadist” campaigns. (Fuller, 2003)



**The refugee population of the greater Middle East, estimated to have surpassed 8 million in 2007, is the largest in the world. Most of the refugee movement has occurred within the region, with people crossing neighboring borders to flee from political and civil unrest in their own countries. (USCRI, 2008)**

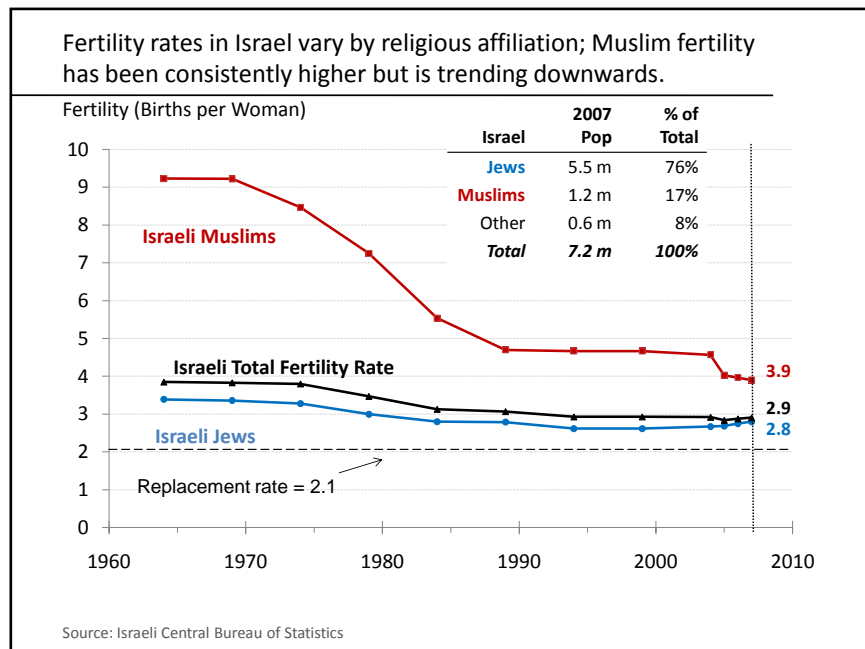
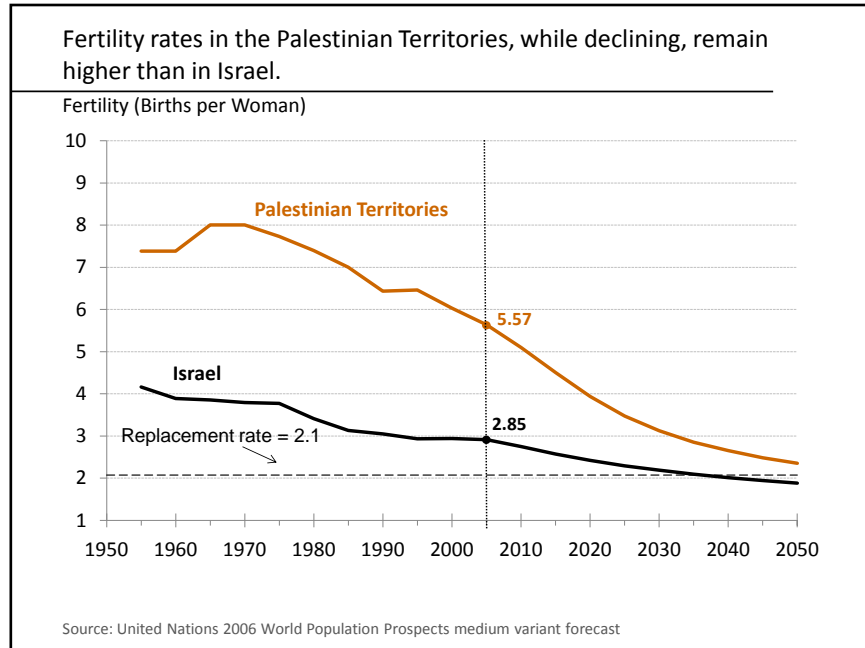
- As of December 2007, approximately 900,000 Afghan refugees were living in Iran, and nearly 1.9 million were living in Pakistan. (USCRI, 2008)
- Large numbers of Palestinian refugees have lived in Jordan, Lebanon, Syria, Gaza, and the West Bank for the past half century. (PRB, 2007)
- USCRI (U.S. Committee for Refugees and Immigrants) includes in its refugee count those whom officials recognize as refugees (as defined by the 1951 Refugee Convention) as well as asylum seekers awaiting initial determinations, beneficiaries of more general forms of protection granted for similar reasons, and others USCRI considers to be refugees.



# Israel and the Palestinian Territories: A Demographic Challenge

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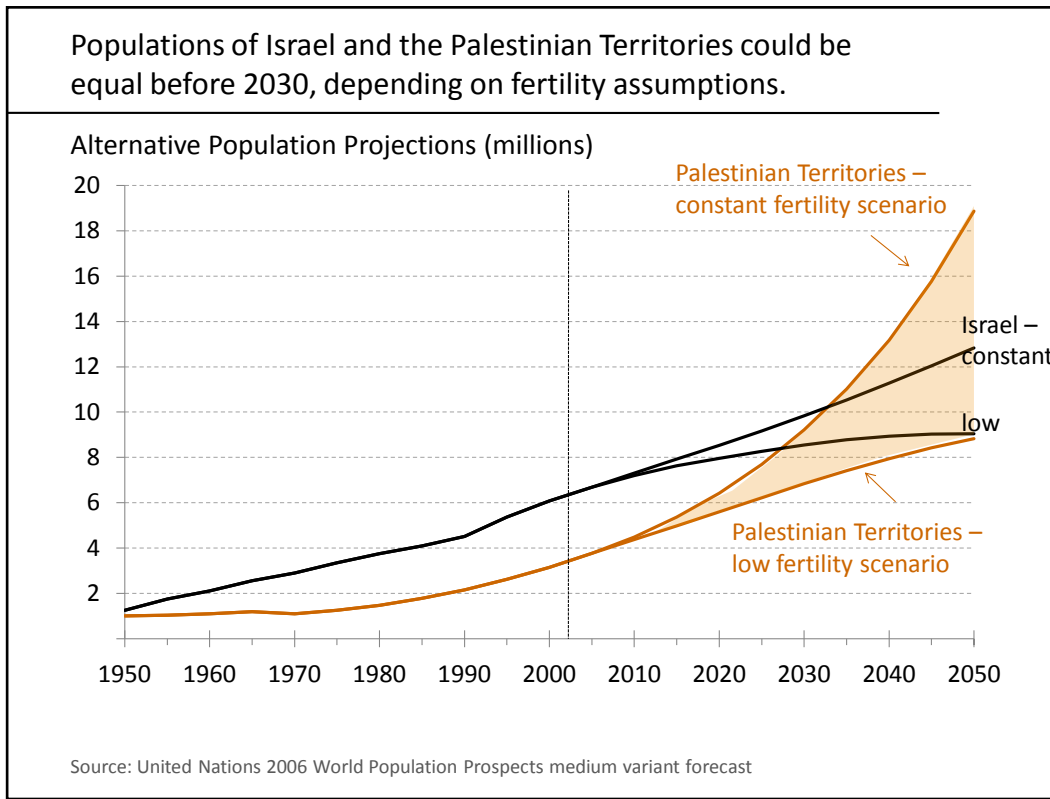
# Israel and the Palestinian Territories



**Israelis and Palestinians are intensely aware of the demographic balance between Jews (in Israel) and predominantly Muslim Arabs (in the Palestinian Territories and within Israel).**

- Over the past 50 years, fertility rates in the Palestinian Territories have been higher than in Israel.
- Within Israel, the fertility rate among the Muslim population has decreased in recent years but remains higher than the Jewish fertility rate.

# Israel and the Palestinian Territories



**Based on UN projections, the populations of Israel and the Palestinian Territories could be equal before 2030.**

- High fertility rates in the Palestinian Territories have fueled rapid population growth in Gaza and the West Bank over the past half-century. This growth is projected to continue in the coming decades.
- According to the *alternative projections* shown above, the populations of Israel and the Palestinian Territories could be equal by 2030 or earlier. According to the UN's *medium variant* forecast, between 2005 and 2050, the population of the Palestinian Territories is projected to grow by 173%, from 3.8 million to 10.3 million, while the population of Israel is expected to increase by 57%, from 6.7 million to 10.5 million.
- Leading political figures in Israel have noted that Muslims within Israel and in the Palestinian Territories could soon outnumber Jews in Israel, and have advocated the return of the Palestinian Territories to avoid Jews becoming a minority in their own state.

**Within Israel, the higher fertility rate among Muslims is contributing to an increasing percentage of Arabs in the total Israeli population.**

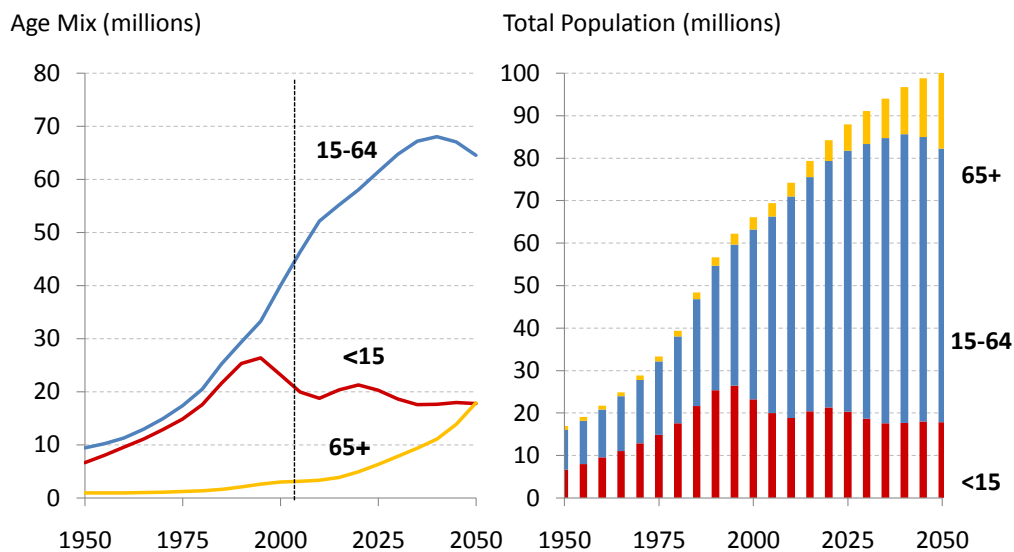
- Between 2007 and 2030, the number of Arabs in Israel is projected to increase from 1.5 million to 2.4 million. (CBS)
- Although ultra-Orthodox Jews in Israel have a higher fertility rate than the secular Jewish population, the ultra-Orthodox community is not large enough to significantly increase the overall Jewish fertility rate. (Economist)





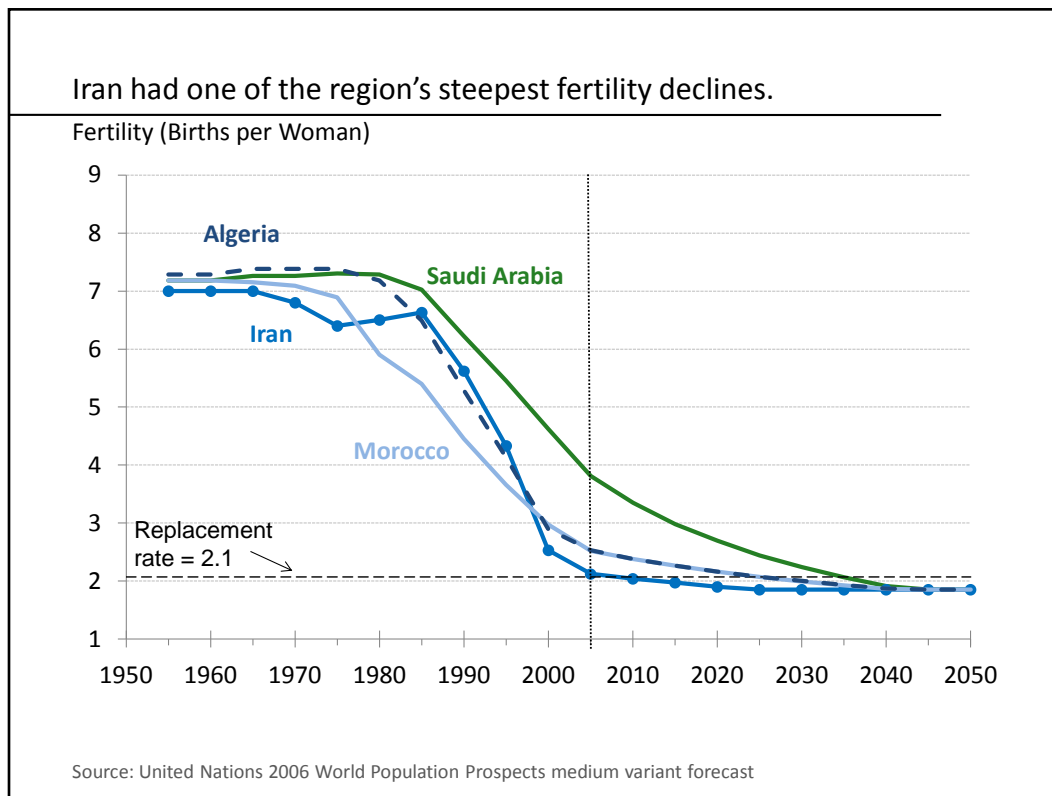
# Iran: Transition to Low-Fertility

Iran's dramatic drop in fertility will result in a declining number of children and slower overall population growth.



Source: United Nations 2006 World Population Prospects medium variant forecast

# Iran: Transition to Low Fertility



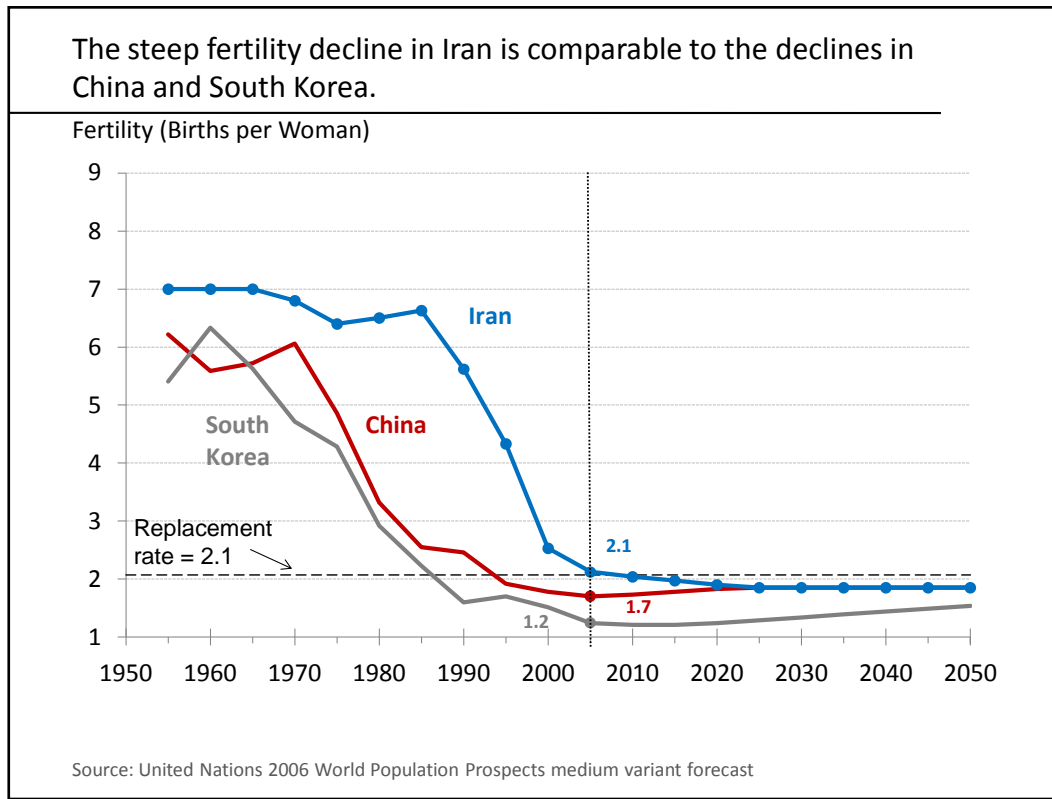
## Iran's sharp fertility decline since 1985 is attributed to the government's extensive family planning program and social developments in Iran over the past two decades.

- Between 1985 and 2005, Iran's fertility rate dropped from approximately 6.63 births per woman to replacement level (2.1).
- Following the 1979 revolution, Ayatollah Khomeini introduced a pro-natal strategy to encourage population growth; by the mid-1980s, the Iranian government became concerned that the "baby boom" that ensued was hindering economic development. (PAI, 2007)
- With the support of key clerics, the government introduced a national family planning program in the late 1980s that made modern contraceptive methods available free of charge in urban and rural public clinics, required engaged couples to take a course on family planning before receiving a marriage license, and encouraged families to have fewer children and lengthen spacing between pregnancies. (PAI, 2007)
- In addition to the family planning program, analysts have attributed Iran's fertility decline to increasing economic aspirations of Iranian families over the past 20 years and to rising education and employment levels among Iranian women. (JCFS, 2007; New Republic, 2007)

The Iranian experience suggests that religious government, conventionally considered to be conducive to higher fertility, can coincide with steep fertility declines. (JCFS, 2007)

- The topic of family planning and contraceptive use has been studied extensively by Islamic scholars, the majority of whom believe the *Qur'an* does not prohibit birth control or the spacing of pregnancies; accordingly, family planning is acceptable under Islamic law. (PRB, 2007)

# Iran: Transition to Low Fertility



**The pace of Iran’s fertility decline resembles the steep fertility declines of China and South Korea during the latter half of the 20<sup>th</sup> century.**

- South Korea’s fertility fell from 6.3 to replacement rate in the 25 years between 1960 and 1985. Fertility in South Korea continued to fall and today is among the lowest in the world at 1.2 births per woman. The combination of the steep drop and exceptionally low fertility rate mean that South Korea faces impending workforce issues as its population becomes top-heavy with old people.
- China’s fertility began to fall even before the introduction of the one-child policy; fertility today stands below replacement rate at 1.7 births per woman. Though still a developing country, China will face dramatic increases in the number of old people over the coming decades, raising the question of how China will cope with the social welfare consequences of getting old before it gets rich.

## Iran: Transition to Low Fertility

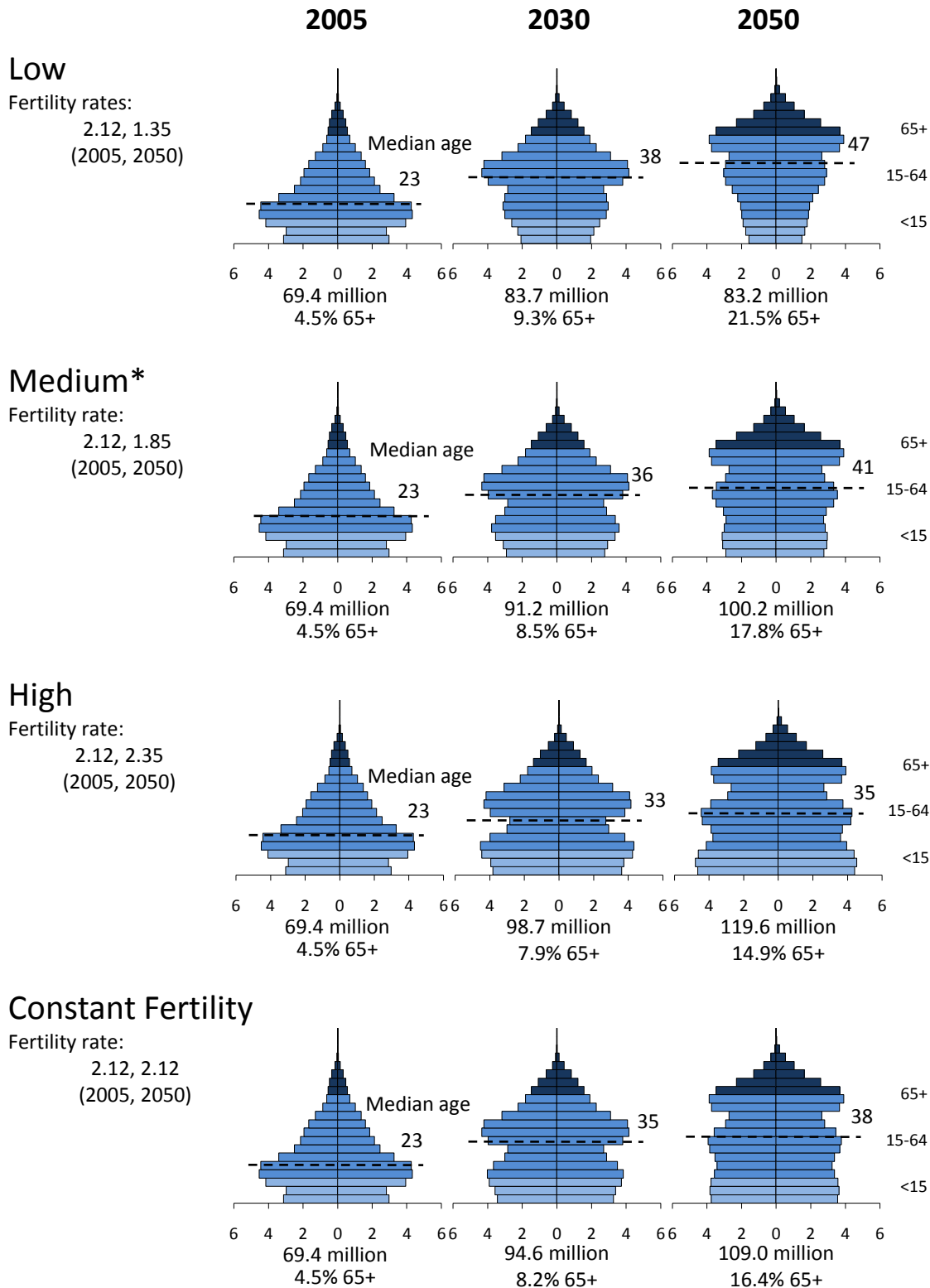
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**The future composition of Iran's population will depend on whether the current trend of declining fertility continues in the coming decades.** In any scenario, the proportion of Iran's population 65 years or older is projected to increase significantly by 2050, bringing the country to at least 15% 65+ by 2050.

- The UN's **low** fertility variant assumes that Iran's fertility falls even further and remains at 1.35, the fertility rate in Japan and Eastern Europe today. In this scenario, Iran's age profile in 2050 would look similar to that of South Korea in 2030.
- The UN's **medium** variant fertility scenario is used throughout this briefing unless otherwise noted, and assumes that Iran's fertility continued to fall slightly to 1.85. In this case, Iran's 2050 age structure resembles that of China in 2030 under medium variant scenarios.
- Under the UN **high** fertility variant, fertility rates increase to 2.35, though such a scenario may be unlikely. According to a recent PRB report, Iran's national family planning program and the changes in society it has engendered—including widespread access to contraception and increasing levels of female workforce participation—are so deeply entrenched that any proposals to increase fertility are not likely to be successful. (PRB, 2007)

# Iran: Transition to Low Fertility

Future age structure depends on fertility assumptions



Population in millions by five-year age bracket. Males on left, females on right.

\*Medium variant used throughout this analysis, unless otherwise noted

Source: United Nations, *World Population Prospects, The 2006 Revision*.



# Pakistan and Afghanistan: Explosive Population Growth

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# Pakistan and Afghanistan: Explosive Population Growth

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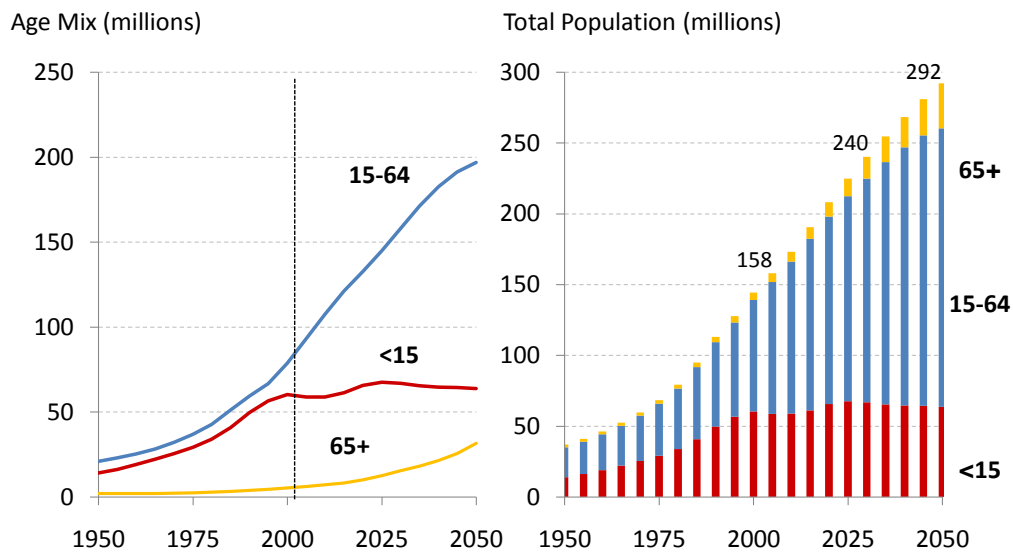
**Some of the most daunting global security threats of our time emanate from Pakistan and Afghanistan – countries which are in the midst of a population boom.** Both countries are challenged by political instability, civil unrest and violence, made even more alarming by Pakistan's possession of nuclear weapons and the presence of Taliban and Al Qaeda strongholds in along the Pakistan-Afghanistan border. Continued rapid population growth will make the maintenance of stability and order increasingly difficult.

- Pakistan, already the most populous country in the region is projected to double its populations by 2050, adding 82 million people by 2030 and another 52 million by 2050.
- Afghanistan, the youngest, fastest growing, and one of the poorest in the region, is projected to more than double its population from 25 to 52 million by 2030. By 2050 its population will more than triple, reaching almost 80 million.
- In both countries working-age populations (15-64) will increase slightly faster than total populations in the coming decades, though Pakistan's working-age growth will begin to level off by 2050.



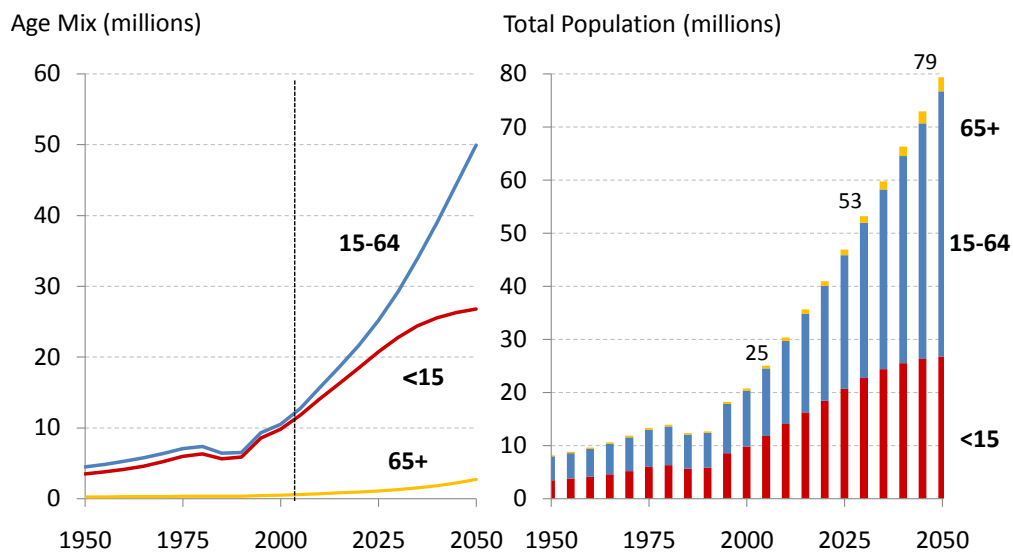
# Pakistan and Afghanistan: Explosive Population Growth

With its population expected to nearly double to almost 300 million by 2050, Pakistan will be the world's 5<sup>th</sup> most populous country.



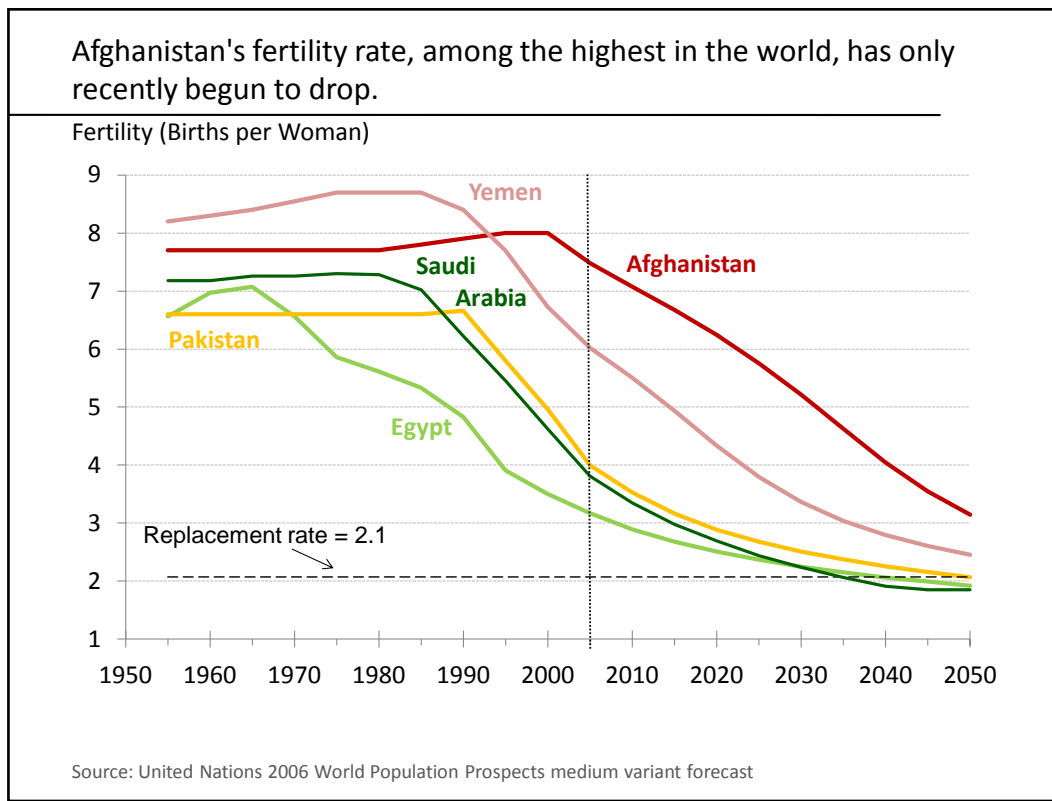
Source: United Nations 2006 World Population Prospects medium variant forecast

Population in Afghanistan, the region's youngest and fastest growing country, is projected to more than triple by 2050.



Source: United Nations 2006 World Population Prospects medium variant forecast

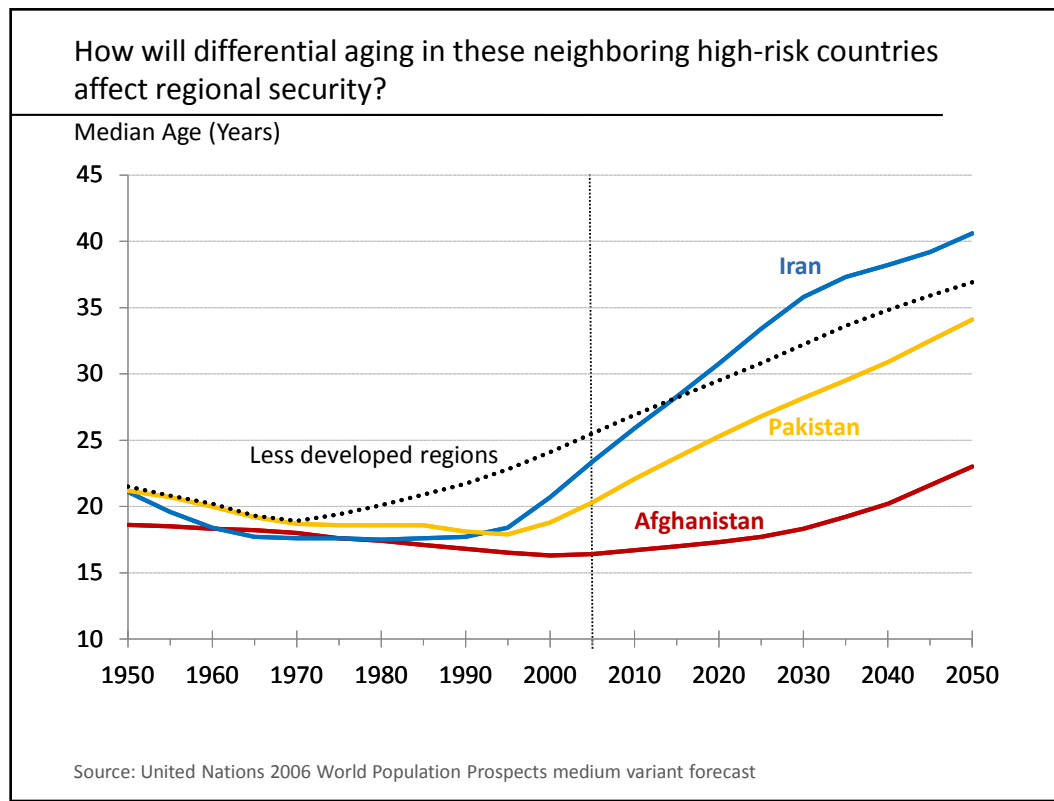
# Pakistan and Afghanistan: Explosive Population Growth



## High fertility rates in Pakistan and Afghanistan continue to drive the population explosion in these countries.

- At 7.5 births per woman, Afghanistan currently has the highest fertility rate in the Middle East.
  - Even after a projected decline to 3.1 by 2050 (based on the UN's medium variant forecast), Afghanistan's fertility rate will remain the highest in the region. Accordingly, Afghanistan's population is expected to continue to grow dramatically, doubling by 2030 and tripling by 2050.
- Pakistan's fertility rate has fallen significantly in recent years – dropping from 6.7 in 1990 to 4.0 in 2005 – but remains high relative to other countries in the Middle East.

# Pakistan and Afghanistan: Explosive Population Growth



**Due to differences in fertility and longevity, neighboring countries Pakistan, Afghanistan, and Iran face divergent aging trajectories.**

- Afghanistan, with the region's highest fertility and lowest life expectancy, will remain the youngest country in the region. The median age, now only 16, will increase only very gradually over the next fifty years. Afghanistan's continued high youth predominance is likely to remain a major destabilizing force.
- Pakistan, which had a recent drop in fertility, is gradually aging, but will remain relatively young compared with other less developed countries. The pace of aging will accelerate starting around 2020 as the share of people age 65+ starts increasing. By 2050 the number of people age 65+ will have increased fivefold, from 6 million in 2005 to 32 million, or 11% of the total population.
- Iran, one of the region's fastest aging countries, is also one of the world's fastest aging countries. Due to its steep fertility decline, the number of children is projected to drop 11% by 2050 and the median age is projected to increase by 18 years, one of the largest increases in the world. By 2015, Iran's median age is expected to surpass the less developed country average, nearly matching the US level by 2050. By 2050, Iran's share of 65+ will reach 18, well above the 15% average for developing countries.



## Questions for Consideration

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**The demographic lens of the five age groups presented in this report highlights future demographic trends across the region and suggests that new strategies will be needed to address the challenges and opportunities in the Middle East. This demographic perspective frames a new set of questions regarding political stability abroad and security interests at home.**

- How will poor countries like Afghanistan and Yemen meet the challenge of caring for the increasing masses of children, and then the increasing masses of young adults that continued high fertility rates will produce?
- If youth bulge countries are not able to provide adequate educational and social services – and later employment – for their young adult populations, how will the youth respond? Emigration? Rebellion? Radicalization?
- Might some of the current youth bulge countries of the Middle East have economies resembling those of the Asian tigers in 30 years? What would it take to get there? Which countries are most likely to capitalize on their demographic dividends?
- Will non-citizen workers in Saudi Arabia face increasing competition as Saudi Arabia’s young population grows?
- What will be the consequences of millions of Afghan refugees pouring into Iran and Pakistan? Will it prompt closer or more tense state-to-state relations between these countries? What about people-to-people ties?
- What changes are likely as the populations of Israel and the Palestinian Territories approach parity?
- What are the political and economic implications of declining youth predominance in the current youth bulge countries? Will declining youth predominance reduce the risk of civil unrest even in the face of echo bulges?
- Will Iran’s national family planning program serve as a model for other Middle Eastern countries aiming to decrease fertility?
- What are the likely economic and social consequences of absorbing the Middle East’s continued explosive population growth? For the region? For the world?
- How will young, rapidly aging countries like Tunisia and Iran handle the swift transition from needing to absorb “youth bulges” to needing to care for increasing number and share of elderly in their populations?
- Are there lessons to be learned from rapidly aging countries in other parts of the world, such as China and South Korea?
- How will differential aging in the neighboring high risk countries of Afghanistan, Pakistan, and Iran affect regional security? How should it change US security strategy in the region?

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Appendix A:  
Age Groups in the Greater Middle East  
Expanded Data Table

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# Appendix A

## "Age Groups" in the Greater Middle East - Expanded Data Table

Country by 2005 median age	Med. Age 2005	Total Population (in millions)				Population Growth			
		1950	2005	2030	2050	2005-30		2030-50	
						Millions	%	Millions	%
<b>Youngest</b>									
Afghanistan	16	8.2	25.1	53.3	79.4	28.2	112.4%	26.2	49.1%
Yemen	17	4.3	21.1	40.8	58.0	19.7	93.2%	17.2	42.3%
Palestinian Terr.	17	1.0	3.8	7.3	10.3	3.6	94.6%	2.9	40.2%
Iraq	19	5.3	28.0	47.4	61.9	19.4	69.2%	14.6	30.7%
<b>Young, Gradually Aging</b>									
Pakistan	20	36.9	158.1	240.3	292.2	82.2	52.0%	51.9	21.6%
Syria	21	3.5	18.9	29.3	34.9	10.4	55.0%	5.6	19.1%
Jordan	21	0.5	5.5	8.6	10.1	3.0	54.3%	1.6	18.3%
Oman	23	0.5	2.5	3.9	4.6	1.4	54.2%	0.8	20.0%
Egypt	23	21.8	72.9	104.1	121.2	31.2	42.9%	17.1	16.5%
Saudi Arabia	23	3.2	23.6	37.3	45.0	13.7	58.0%	7.7	20.7%
<b>Young, Rapidly Aging</b>									
Iran	23	16.9	69.4	91.2	100.2	21.7	31.3%	9.0	9.9%
Algeria	24	8.8	32.9	44.7	49.6	11.9	36.1%	4.9	10.9%
Libya	24	1.0	5.9	8.4	9.7	2.5	42.7%	1.2	14.6%
Morocco	24	9.0	30.5	39.3	42.6	8.8	28.7%	3.3	8.5%
Turkey	27	21.5	73.0	92.5	98.9	19.5	26.7%	6.5	7.0%
Tunisia	27	3.5	10.1	12.5	13.2	2.4	24.0%	0.6	5.2%
<b>Already Older</b>									
Lebanon	27	1.4	4.0	4.9	5.2	0.9	22.8%	0.3	6.0%
Israel	29	1.3	6.7	9.2	10.5	2.5	36.9%	1.4	14.9%
<b>Older Gulf States</b>									
Bahrain	29	0.1	0.7	1.0	1.2	0.3	41.4%	0.1	14.4%
Kuwait	29	0.2	2.7	4.3	5.2	1.6	58.3%	1.0	22.6%
UAE	29	0.1	4.1	6.8	8.5	2.6	64.5%	1.8	26.2%
Qatar	31	0.0	0.8	1.2	1.3	0.4	45.9%	0.2	14.8%
<b>Greater Middle East</b>		<b>149.0</b>	<b>600.2</b>	<b>888.0</b>	<b>1,063.9</b>	<b>287.8</b>	<b>47.9%</b>	<b>176.0</b>	<b>19.8%</b>
<b>% of World</b>		<b>5.9%</b>	<b>9.2%</b>	<b>10.7%</b>	<b>11.6%</b>	<b>16.0%</b>		<b>20.1%</b>	
<b>For Reference:</b>									
<b>World</b>		<b>2,535.1</b>	<b>6,514.8</b>	<b>8,317.7</b>	<b>9,191.3</b>	<b>1,803.0</b>	<b>27.7%</b>	<b>873.6</b>	<b>10.5%</b>
More developed regions		813.6	1,215.6	1,260.8	1,245.2	45.1	3.7%	-15.5	-1.2%
Less developed regions		1,721.5	5,299.1	7,056.9	7,946.0	1,757.8	33.2%	889.1	12.6%
Least developed countries		200.3	766.8	1,300.6	1,742.0	533.8	69.6%	441.3	33.9%
India		371.9	1,134.4	1,505.7	1,658.3	371.3	32.7%	152.5	10.1%
Indonesia		79.5	226.1	279.7	296.9	53.6	23.7%	17.2	6.2%
US		157.8	299.8	366.2	402.4	66.3	22.1%	36.2	9.9%

Source: United Nations, *World Population Prospects, The 2006 Revision*, Medium variant forecast.

# Appendix A

## "Age Groups" in the Greater Middle East - Expanded Data Table

Country by 2005 median age	Med. Age	Fertility Rate (births per woman)				Fert. change	Life Expectancy at Birth (in years)			
	2005	1955	2005	2030	2050	1955-05	1955	2005	2030	2050
<b>Youngest</b>										
Afghanistan	16	7.7	7.5	5.2	3.1	-0.2	28.8	42.1	50.8	58.7
Yemen	17	8.2	6.0	3.4	2.5	-2.2	32.5	60.3	70.4	75.0
Palestinian Terr.	17	7.4	5.6	3.1	2.4	-1.8	43.2	72.4	76.9	79.5
Iraq	19	7.3	4.9	2.8	2.2	-2.4	45.3	57.0	72.1	76.1
<b>Young, Gradually Aging</b>										
Pakistan	20	6.6	4.0	2.5	2.1	-2.6	43.4	63.6	71.4	75.7
Syria	21	7.3	3.5	2.1	1.9	-3.8	45.9	73.1	77.5	80.0
Jordan	21	7.4	3.5	2.1	1.9	-3.9	43.2	71.3	76.4	79.1
Oman	23	7.2	3.7	2.3	2.0	-3.5	37.6	74.2	78.6	81.0
Egypt	23	6.6	3.2	2.3	1.9	-3.4	41.9	69.8	75.6	78.6
Saudi Arabia	23	7.2	3.8	2.2	1.9	-3.4	39.9	71.6	76.3	79.1
<b>Young, Rapidly Aging</b>										
Iran	23	7.0	2.1	1.9	1.9	-4.9	44.9	69.5	75.4	78.4
Algeria	24	7.3	2.5	2.0	1.9	-4.8	43.1	71.0	76.2	79.0
Libya	24	6.9	3.0	1.9	1.9	-3.8	42.7	72.7	77.4	80.1
Morocco	24	7.2	2.5	2.0	1.9	-4.7	42.9	69.6	75.5	78.6
Turkey	27	6.9	2.2	1.9	1.9	-4.7	43.6	70.8	75.5	78.5
Tunisia	27	6.9	2.0	1.9	1.9	-4.9	44.6	73.0	77.2	79.8
<b>Already Older</b>										
Lebanon	27	5.7	2.3	1.9	1.9	-3.4	55.9	71.0	75.8	78.7
Israel	29	4.2	2.9	2.2	1.9	-1.3	65.4	79.7	83.3	85.4
<b>Older Gulf States</b>										
Bahrain	29	7.0	2.5	1.9	1.9	-4.5	50.9	74.8	78.4	80.8
Kuwait	29	7.2	2.3	1.9	1.9	-4.9	55.6	76.9	79.9	82.0
UAE	29	7.0	2.5	2.0	1.9	-4.5	48.0	77.8	81.1	83.4
Qatar	31	7.0	2.9	2.1	1.9	-4.0	48.0	74.3	78.4	80.8
<b>For Reference:</b>										
<b>World</b>		<b>5.0</b>	<b>2.7</b>	<b>2.2</b>	<b>2.0</b>	<b>-2.4</b>	<b>46.4</b>	<b>66.0</b>	<b>71.9</b>	<b>75.4</b>
More developed regions		2.8	1.6	1.7	1.8	-1.3	66.1	75.6	79.8	82.4
Less developed regions		6.2	2.9	2.3	2.1	-3.3	40.8	64.1	70.5	74.3
Least developed countries		6.7	5.0	3.4	2.5	-1.7	36.2	52.7	61.4	67.2
India		5.9	3.1	2.0	1.9	-2.8	37.4	62.9	71.4	75.6
Indonesia		5.5	2.4	1.9	1.9	-3.1	37.5	68.6	75.7	78.6
US		3.5	2.0	1.9	1.9	-1.4	68.9	77.4	80.7	83.1

Source: United Nations, *World Population Prospects, The 2006 Revision*, Medium variant forecast.

# Appendix A

## "Age Groups" in the Greater Middle East - Expanded Data Table

Country by 2005 median age	Med. Age	Median Age (years)				M.A. change	Percent of Total Population Age 65+			
	2005	1950	2005	2030	2050	2005-30	1950	2005	2030	2050
<b>Youngest</b>										
Afghanistan	16	18.6	16.4	18.3	23.0	1.9	2.6%	2.2%	2.4%	3.4%
Yemen	17	18.9	16.7	21.6	27.7	4.9	3.9%	2.3%	3.3%	5.9%
Palestinian Terr.	17	17.2	16.9	22.7	28.9	5.8	4.8%	3.1%	4.3%	7.3%
Iraq	19	20.1	18.9	25.3	31.1	6.4	3.4%	2.8%	4.7%	8.5%
<b>Young, Gradually Aging</b>										
Pakistan	20	21.2	20.3	28.2	34.1	7.9	5.3%	3.9%	6.4%	10.8%
Syria	21	19.4	20.6	29.2	37.1	8.6	4.3%	3.2%	6.2%	14.1%
Jordan	21	17.2	21.1	29.5	37.0	8.4	4.8%	3.2%	6.2%	13.9%
Oman	23	18.8	22.5	31.0	37.2	8.5	3.0%	2.6%	7.3%	14.7%
Egypt	23	20.0	22.9	29.9	36.1	7.0	3.0%	4.8%	8.6%	13.6%
Saudi Arabia	23	19.0	23.3	30.0	36.0	6.7	3.3%	2.8%	6.6%	13.0%
<b>Young, Rapidly Aging</b>										
Iran	23	21.1	23.4	35.8	40.6	12.4	5.3%	4.5%	8.5%	17.8%
Algeria	24	19.9	24.0	34.2	39.4	10.2	4.4%	4.5%	8.7%	17.6%
Libya	24	19.0	24.1	32.5	39.2	8.4	4.7%	3.8%	8.2%	17.7%
Morocco	24	17.7	24.3	33.3	38.8	9.0	2.9%	5.2%	9.9%	16.6%
Turkey	27	19.4	26.7	35.5	40.7	8.8	3.2%	5.6%	10.8%	18.4%
Tunisia	27	20.9	26.7	37.7	42.5	11.0	5.7%	6.3%	11.5%	20.8%
<b>Already Older</b>										
Lebanon	27	23.2	27.1	34.7	40.2	7.6	7.3%	7.2%	11.3%	17.7%
Israel	29	25.5	28.8	34.0	39.4	5.2	3.9%	10.1%	14.8%	19.4%
<b>Older Gulf States</b>										
Bahrain	29	18.9	28.8	36.6	40.9	7.8	2.9%	3.1%	11.5%	18.6%
Kuwait	29	21.5	29.2	36.7	40.1	7.5	2.9%	1.8%	8.5%	19.5%
UAE	29	18.9	29.4	36.5	40.3	7.1	3.4%	1.1%	4.4%	18.3%
Qatar	31	18.9	31.1	35.9	41.9	4.8	3.4%	1.3%	6.8%	16.8%
<b>For Reference:</b>										
<b>World</b>		<b>23.9</b>	<b>28.0</b>	<b>34.0</b>	<b>38.1</b>	<b>6.0</b>	<b>5.2%</b>	<b>7.3%</b>	<b>11.7%</b>	<b>16.2%</b>
More developed regions		29.0	38.6	44.1	45.7	5.5	7.9%	15.3%	22.4%	26.1%
Less developed regions		21.5	25.5	32.2	36.9	6.7	3.9%	5.5%	9.8%	14.7%
Least developed countries		19.5	19.0	23.1	27.9	4.1	3.7%	3.3%	4.5%	6.9%
India		21.3	23.8	31.7	38.6	7.9	3.1%	5.0%	8.8%	14.5%
Indonesia		20.0	26.5	35.4	41.1	8.9	4.0%	5.5%	10.7%	18.6%
US		30.0	36.0	39.1	41.1	3.1	8.3%	12.3%	19.4%	21.0%

Source: United Nations, *World Population Prospects, The 2006 Revision*, Medium variant forecast.

# Appendix A

## "Age Groups" in the Greater Middle East - Expanded Data Table

Country by 2005 median age	Med. Age	Young Adult Population (15-29)						Growth in YA Pop (15-29)	
	2005	2005		2030		2050		2005-30	2030-50
	2005	Millions	% of 15+	Millions	% of 15+	Millions	% of 15+		
<b>Youngest</b>									
Afghanistan	16	6.7	50.5%	15.0	49.1%	23.2	44.0%	122.9%	54.8%
Yemen	17	6.1	53.5%	11.7	45.0%	14.9	35.7%	92.2%	26.8%
Palestinian Terr.	17	1.0	48.9%	2.1	43.9%	2.6	34.4%	111.2%	23.3%
Iraq	19	7.9	48.1%	12.7	38.9%	14.9	31.9%	60.8%	18.0%
<b>Young, Gradually Aging</b>									
Pakistan	20	47.2	47.5%	59.6	34.4%	64.2	28.1%	26.3%	7.7%
Syria	21	6.1	51.2%	7.7	35.0%	7.0	25.0%	25.3%	-8.7%
Jordan	21	1.6	46.5%	2.2	34.4%	2.1	25.5%	36.6%	-5.7%
Oman	23	0.8	48.0%	0.9	31.2%	0.9	25.3%	13.2%	4.6%
Egypt	23	21.2	43.7%	25.7	33.1%	25.4	26.4%	20.9%	-0.9%
Saudi Arabia	23	6.7	43.4%	9.2	33.1%	9.5	26.2%	37.5%	3.0%
<b>Young, Rapidly Aging</b>									
Iran	23	24.2	48.9%	20.2	27.8%	17.4	21.2%	-16.7%	-13.5%
Algeria	24	10.5	45.6%	10.0	28.7%	9.2	22.7%	-5.4%	-7.5%
Libya	24	1.9	45.7%	2.1	31.7%	1.7	22.0%	11.5%	-17.7%
Morocco	24	9.0	42.5%	8.9	29.3%	8.2	23.7%	-1.8%	-7.5%
Turkey	27	20.3	38.7%	19.9	27.0%	18.2	22.3%	-2.0%	-8.4%
Tunisia	27	3.1	40.8%	2.5	24.7%	2.3	21.1%	-18.4%	-6.8%
<b>Already Older</b>									
Lebanon	27	1.1	36.7%	1.1	27.4%	1.0	22.9%	1.4%	-7.7%
Israel	29	1.6	33.2%	2.1	28.8%	2.0	23.8%	28.9%	-1.0%
<b>Older Gulf States</b>									
Bahrain	29	0.2	35.5%	0.2	25.6%	0.2	21.6%	13.3%	-1.1%
Kuwait	29	0.8	37.0%	0.9	25.6%	0.9	21.6%	17.2%	5.1%
UAE	29	1.3	39.8%	1.5	26.1%	1.5	21.1%	13.2%	3.8%
Qatar	31	0.2	32.5%	0.2	25.7%	0.2	20.7%	21.3%	-5.1%
<b>Greater Middle East</b>		<b>179.5</b>	<b>45.4%</b>	<b>216.2</b>	<b>33.1%</b>	<b>227.9</b>	<b>27.3%</b>	<b>20.5%</b>	<b>5.4%</b>
<b>% of World</b>		<b>10.7%</b>		<b>11.6%</b>		<b>12.3%</b>			
<b>For Reference:</b>									
<b>World</b>		<b>1,676.9</b>	<b>35.9%</b>	<b>1,858.8</b>	<b>29.0%</b>	<b>1,858.0</b>	<b>25.2%</b>	<b>10.8%</b>	<b>0.0%</b>
More developed regions		250.2	24.8%	214.5	20.1%	200.9	19.0%	-14.3%	-6.3%
Less developed regions		1,426.7	39.0%	1,644.3	30.8%	1,657.1	26.3%	15.3%	0.8%
Least developed countries		214.7	47.9%	361.3	42.6%	453.6	36.3%	68.3%	25.5%
India		312.8	41.1%	367.2	31.6%	324.0	23.9%	17.4%	-11.8%
Indonesia		63.1	39.0%	61.7	27.6%	54.8	22.4%	-2.3%	-11.2%
US		62.9	26.5%	71.9	24.0%	73.4	22.1%	14.3%	2.2%

Source: United Nations, *World Population Prospects, The 2006 Revision*, Medium variant forecast.

# Appendix A

## "Age Groups" in the Greater Middle East - Expanded Data Table

Country by 2005 median age	Med. Age	Working-Age Population (15-64)				Change in Working-Age Population 2005-30                      2030-50			
	2005	1950	2005	2030	2050	Millions	%	Millions	%
<b>Youngest</b>									
Afghanistan	16	4.5	12.7	29.2	50.0	16.5	129.6%	20.7	70.8%
Yemen	17	2.3	10.9	24.7	38.2	13.8	126.3%	13.5	54.7%
Palestinian Terr.	17	0.5	1.9	4.5	6.8	2.6	132.8%	2.3	51.7%
Iraq	19	3.0	15.6	30.3	41.6	14.7	94.5%	11.3	37.2%
<b>Young, Gradually Aging</b>									
Pakistan	20	21.0	93.2	158.0	196.9	64.8	69.6%	38.8	24.6%
Syria	21	1.9	11.4	20.1	23.2	8.8	76.9%	3.1	15.2%
Jordan	21	0.2	3.3	5.9	6.8	2.6	78.2%	0.9	14.8%
Oman	23	0.2	1.6	2.6	3.1	1.0	64.1%	0.4	16.8%
Egypt	23	12.5	45.0	68.7	79.9	23.7	52.5%	11.1	16.2%
Saudi Arabia	23	1.8	14.8	25.4	30.4	10.6	71.9%	5.0	19.7%
<b>Young, Rapidly Aging</b>									
Iran	23	9.4	46.3	64.8	64.5	18.4	39.8%	-0.3	-0.4%
Algeria	24	4.9	21.6	30.9	31.9	9.2	42.7%	1.0	3.2%
Libya	24	0.5	3.9	5.9	6.1	2.0	52.2%	0.2	3.4%
Morocco	24	4.7	19.7	26.5	27.6	6.8	34.6%	1.1	4.3%
Turkey	27	12.2	48.3	63.6	63.4	15.4	31.9%	-0.2	-0.4%
Tunisia	27	2.0	6.8	8.6	8.3	1.8	26.2%	-0.4	-4.4%
<b>Already Older</b>									
Lebanon	27	0.8	2.6	3.3	3.4	0.8	29.5%	0.0	1.1%
Israel	29	0.8	4.1	5.8	6.5	1.6	39.8%	0.8	13.0%
<b>Older Gulf States</b>									
Bahrain	29	0.1	0.5	0.7	0.8	0.2	41.0%	0.0	5.8%
Kuwait	29	0.1	2.0	3.1	3.3	1.1	55.4%	0.2	6.5%
UAE	29	0.0	3.2	5.4	5.7	2.1	65.9%	0.4	6.7%
Qatar	31	0.0	0.6	0.9	0.9	0.3	43.1%	0.0	3.0%
<b>Greater Middle East</b>		<b>83.5</b>	<b>370.2</b>	<b>589.1</b>	<b>699.2</b>	<b>218.9</b>	<b>59.1%</b>	<b>110.0</b>	<b>18.7%</b>
<b>% of World</b>		<b>5.4%</b>	<b>8.8%</b>	<b>10.8%</b>	<b>11.9%</b>	<b>17.7%</b>		<b>24.7%</b>	
<b>For Reference:</b>									
<b>World</b>		<b>1,538.2</b>	<b>4,192.4</b>	<b>5,430.0</b>	<b>5,874.9</b>	<b>1,237.6</b>	<b>29.5%</b>	<b>444.9</b>	<b>8.2%</b>
More developed regions		526.9	823.2	786.4	729.9	-36.8	-4.5%	-56.5	-7.2%
Less developed regions		1,011.3	3,369.2	4,643.6	5,144.9	1,274.4	37.8%	501.4	10.8%
Least developed countries		110.5	423.5	789.8	1,130.7	366.3	86.5%	340.9	43.2%
India		220.8	703.8	1,028.4	1,116.4	324.6	46.1%	88.0	8.6%
Indonesia		45.2	149.4	193.7	189.9	44.2	29.6%	-3.8	-2.0%
US		102.2	200.7	228.5	248.4	27.9	13.9%	19.8	8.7%

Source: United Nations, *World Population Prospects, The 2006 Revision*, Medium variant forecast.



## Appendix B: Country Demographic Reference

Histograms and demographic data tables for the following countries:

1. Afghanistan
2. Algeria
3. Bahrain
4. Egypt
5. Iran
6. Iraq
7. Israel
8. Jordan
9. Kuwait
10. Lebanon
11. Libya
12. Morocco
13. Oman
14. Pakistan
15. Palestinian Territories
16. Qatar
17. Saudi Arabia
18. Syria
19. Tunisia
20. Turkey
21. United Arab Emirates
22. Yemen

Note: Appendix B is available online at <http://longevity.stanford.edu/myworld/publications> .

**Global Population Age Shifts** directly affect the major global and national issues of today: economic prosperity, social well-being, and national security. We know the world is getting older. What's important is that different countries are aging at different speeds and in different ways. The "developed" world is steadily graying, and in some cases, workforces and even total populations are actually shrinking. In the "developing" world there are some startling changes in store over the next 20 to 40 years. Some countries will age with unprecedented speed, while others will increase their proportion of young adults dangerously quickly. These often surprising developments present both major challenges and real opportunities.

**The Global Aging Program** at the Stanford Center on Longevity focuses on the economic and political implications of longevity. The program specifically addresses the risks and opportunities of Population Age Shifts around the world. Understanding the implications of these Population Age Shifts will be critical for effective policy making. For Congress and the Obama administration, failing to look at policy decisions through this "lens" of Population Age Shifts would result in choices made with incomplete information.

**The Stanford Center on Longevity (SCL)** seeks to transform the culture of human aging using science and technology. Working as a catalyst for change, the Center identifies challenges associated with increased life expectancy, supports scientific and technological research concerning those challenges, and coordinates efforts among researchers, policymakers, entrepreneurs, and the media to find effective solutions. SCL was founded in 2006 by **Professor Laura Carstensen** and received its initial funding from Richard Rainwater. The SCL Advisory Council includes George Shultz, former U.S. Secretary of State, and Jack Rowe, former Chairman and CEO of Aetna.

**Adele Hayutin, Ph.D., Senior Research Scholar and Director of SCL's Global Aging Program**, is a leader in the field of comparative international demographics and population aging. Dr. Hayutin combines broad knowledge of the underlying data with the ability to translate that data into practical, easy to understand language and implications. She has developed a comparative international perspective that highlights surprising demographic differences across countries and illustrates the unexpected speed of critical demographic changes. Previously she was director of research and chief economist of the Fremont Group (formerly Bechtel Investments) where she focused on issues and trends affecting business investment strategy. Dr. Hayutin received a BA from Wellesley College and a Master's in Public Policy and a Ph.D. from the University of California at Berkeley.