

# **THE NEXT 100 YEARS: PART II**

## **Final Workshop Report**

Prepared for the Director, Net Assessment,  
Office of the Secretary of Defense

August 2009

Contract #: HQ0034-07-D-1012, TO 0011

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## Table of Contents

|  |     |
|--|-----|
| Introduction.....  | 3   |
| Overview of Major Possible Demographic Trends .....      | 3   |
| Diagnosis of Likely Demographic Trends .....             | 7   |
| Economic Consequences of Demographic Trends .....        | 10  |
| Factors Shaping the Global Environment.....              | 12  |
| Potential Geopolitical Implications.....                 | 15  |
| Appendix A: The New International Population Order ..... | A-1 |

## THE NEXT 100 YEARS WORKSHOP: PART II

### INTRODUCTION

On April 29, 2009, Booz Allen hosted The *Next 100 Years* workshop for the Director, Net Assessment, Office of the Secretary of Defense to identify and assess likely demographic changes and explore significant factors that may shape the global geopolitical and economic environment in the twenty-first century. Discussions revealed that the dual trends of exploding populations in the developing nations and stagnating or declining populations in the developed world, where fertility rates are already below 2.1<sup>1</sup> in most countries, are likely to affect the relative power of, and relationships among, regions, nations, and communities.

Workshop participants identified three main indicators from which demographic predictions are made: fertility rates, mortality rates, and migration patterns. Mortality is generally the most reliable indicator, although unexpected trends have emerged, such as Russia's steep mortality increase. Fertility rates are often surprising, evident by their unanticipated decline in Iran, but in many cases rough estimates have turned out to be relatively accurate. Experts agreed that migration trends are the most difficult to predict, especially over the long term. Patterns of immigration and emigration emerge quickly, are driven by myriad factors, and are often local in nature. Ultimately, population trajectories have often fooled demographers; as such, analysts must take caution when predicting the future size, geographic distribution, and age structure of various populations.

### OVERVIEW OF MAJOR POSSIBLE DEMOGRAPHIC TRENDS

Demographers at the workshop agreed that the United Nations' (UN) has underestimated the likely population size in many regions and countries at mid-century. Unexpected geopolitical or economic challenges may result from changes in populations – the more extreme the change, the more difficult the problem may be. World population growth may slow or level off, but specific regions and nations will experience implosions and explosions in population size that are likely to be important to shaping the character of the future geopolitical environment.

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<sup>1</sup> 2.1 is replacement level fertility. Each woman must have 2.1 children to maintain the size of a population at any given point.

**Predicted populations in 2050 suggest a major geographic shift of the world's people.** The table below highlights key population trends workshop participants deemed likely in the next 50 years. The subsequent bullets describe the details and potential implications of those possibilities.

| <b>Population Growth, Stagnation, and Decline: 2000-2050</b>  |                                |                             |                   |
|---|--------------------------------|-----------------------------|-------------------|
| <b>Category</b>   | <b>Population: Current (m)</b> | <b>Population: 2050 (m)</b> | <b>Change (m)</b> |
| <b>1. Global Trends</b>   |                                |                             |                   |
| <b>World</b>  | 6,908 (2010)                   | 9,149-10,461                | ▲ 2,241-3,553     |
| <b>Urban</b>  | 3,350                          | 5,100 (2030)                | ▲ 1,850           |
| <b>Rural</b>  | 3,350                          | 3,100 (2030)                | ▼ 250             |
| <b>Developing</b>   | 4,900                          | 8,100                       | ▲ 3,200           |
| <b>Developed</b>  | 1,200                          | 1,200                       | ▲ 1,850           |
| <b>2. Continental Trends</b>  |                                |                             |                   |
| <b>Africa</b>   | 750                            | 2,000                       | ▲ 1,250           |
| <b>Asia</b>   | 4,166 (2010) <sup>^</sup>      | 5,231-6,003 <sup>^</sup>    | ▲ 1,065-1,837     |
| <b>Europe</b>   | 725                            | 470-550                     | ▼ 175-255         |
| <b>3. National Trends</b>   |                                |                             |                   |
| <b>China</b>  | 1,330                          | 1,400                       | ▲ 70              |
| <b>India</b>  | 1,180                          | 1,630                       | ▲ 450             |
| <b>United States</b>  | 310                            | 438                         | ▲ 128             |
| <b>Pakistan</b>   | 172*                           | 345                         | ▲ 173             |
| <b>Yemen</b>  | 23*                            | 85                          | ▲ 62              |
| <b>Russia</b>   | 140*                           | 110-125                     | ▼ 15-25           |
| <b>Turkey</b>   | 72                             | 115                         | ▲ 43              |
| All figures in this table are derived from expert presentation at the Next 100 Years workshop, 29 April 2009, except as noted below:<br><sup>^</sup> UN Population Division database, Medium-High variants.<br><a href="http://www.esa.un.org/unpp/index.asp">www.esa.un.org/unpp/index.asp</a><br><sup>*</sup> CIA World Factbook, July 2008 estimates |                                |                             |                   |

**Population growth may be dramatic in countries of increasing geostrategic interest to the United States**

- Population explosions may occur in a number of unstable, failing, or failed states that have a propensity to generate and harbor militant Islamists. Yemen's population, for example, may grow from 18 million in 2000 to 85 million by 2050 (experts deemed UN predictions of 53 million at mid-century to be improbably low). One scholar stated that "Yemen is on the shortlist of countries" that may create international challenges by exporting people to its neighbors, potentially fomenting regional instability.

- Somalia's rate of population increase could rival Yemen's. Somalia is a collapsed state with an exploding population, characteristics that are likely to facilitate a rise in transnational criminals and terrorists operating there.
- Pakistan's population is approximately 150 million and may increase by 200 million over the next half century. Regardless of the actual rate, massive growth is expected, adding to the difficulties for weak central regimes attempting to control historically ungovernable territory.
- Turkey's population may reach 114 million by 2050, which would equal between one-third and one-quarter of the European Union's (EU) population. Under these circumstances, Turkey would "demographically conquer the EU if it ever became a member."
- Israel's non-Jewish population may comprise a majority by 2030 if Israel retains control over the West Bank. Within Israel proper, the non-Jewish population is growing at a faster rate than the Jewish majority. In any case, Israel is likely to face increased difficulty preserving itself as a Jewish state.

**India is likely to overtake China as the world's most populous country by 2025; China's population growth is stagnating**

- India's population is expected to exceed 1.6 billion by 2050. Ongoing population growth, coupled with religious tensions, class friction, and rapid urbanization, may lead to instability or violent conflict in some parts of India.
- By mid-century, China's population is not likely to exceed 1.4 billion. Fertility rates are below replacement across the country and are especially low in cities. The rate of decline in fertility may increase as urbanization continues.
- Varying regional growth rates may stress China's internal cohesion. Experts posited that China's ability to integrate diverse domestic populations using nationalistic terms may decrease given rapid population increases among Muslim minorities and a stagnating Han majority.

**Population decline is probable in Europe, Russia, and Japan**

- In contrast to Asia, Europe's population is imploding. Fertility rates are below replacement levels across the continent and lower than 1.5 in some countries. Experts noted that continued population decline is probable, and recovery, even over the long term, is nearly impossible.
- Even accounting for ongoing immigration, the population of Italy is likely to decline by 7 percent; Germany by 10 percent; Poland, Latvia, and Romania by 20-25 percent; and Ukraine and Bulgaria by more than 30 percent between 2007 and 2050.

Immigration may result in population increases in Spain, France, and the United Kingdom.

- According to one expert, 377,000 Africans and 1.2 million Asians are likely to emigrate to the West every year until 2050. Geographic proximity makes Europe a primary destination. European hopes of retaining a modicum of economic power are dependent on immigrants, whom white Europeans believe are eroding traditional European society. As such, white Europeans are moving to the United States, Canada, and Australia in increasing numbers, seeking to escape fundamental sociocultural changes—and high tax rates—on the continent. The result may be Muslim-majority populations in some European countries in the next 50 to 100 years.
- Having reached 150 million in 2000, Russia's population is likely to decrease by as many as 40 million by 2050. Low fertility, a rapid rise in mortality, and increasing emigration all contribute to this potential decline.
- Japan's population is declining; its fertility rates are approaching 1.1 and show no sign of increasing. Experts argued that Japan's national ethos of exploiting technological innovations to increase capital and labor productivity might help mitigate the economic effects of population decline.<sup>2</sup> Europeans, on the other hand, may not possess a similar ethos and thus could fall behind in capitalizing on innovations.

**Global migratory flows are likely to increase. Continued migration to the United States is probable, although the primary source of migrants may change**

- Mobility, particularly the growing ubiquity of air travel, is facilitating greater migration worldwide. Even the relatively poor can afford to travel. The total annual number of global migrants is likely to increase from 190 million in 2005 to 300 million in 2050; sustained and growing migration flows may alter cultures and societies in many parts of the world.
- Mass migrations caused by political turmoil, natural disasters, or a lack of resources may result in the spread of previously-localized conflicts. In some cases, mass migrations and their consequences may prompt the United States to provide humanitarian assistance or deploy resources to safeguard its interests.
- The U.S. reputation for effectively integrating immigrants and maintaining a strong sense of community is likely to continue to attract educated, aspiring immigrants seeking economic opportunities. Africa may emerge as the main source of immigrants to the United States, and Latino immigration may decline as Mexico reaches the limits of emigration and its fertility rates fall to replacement level. Continuing—and increased—immigration could contribute to ongoing economic

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<sup>2</sup> George Friedman, in his recent text *The Next 100 Years* (New York: Doubleday, 2009), hypothesizes that Japan may reemerge as a major global power.

growth, but immigrants could also import conflicts to the U.S. homeland that would otherwise not involve the United States.

- At current levels of immigration, the U.S. population will likely reach approximately 438 million in 2050, of which Latinos would comprise about one quarter. If the United States were to institute a zero-immigration policy, its population at mid-century would be approximately 321 million.

### **Aging is likely to be a core condition of world population in the next 100 years**

- More than 15 percent of the world's population will be age 65 or older by 2050, nearly double the current percentage. There will also be fewer people under five years of age by mid-century.
- Aging is likely to be among the most significant characteristics of the twenty-first century, as population growth was in the twentieth. The consequences of aging, including challenges to sustaining economic strength, are nearly certain to affect a multitude of countries, including almost all of Europe, Japan, China, and the developed Asian states.
- Countries that become old before they become wealthy may be particularly susceptible to domestic tensions or social breakdown. This condition is emerging in China and may have consequences for its economic growth, development, and power in coming decades.

## **DIAGNOSIS OF LIKELY DEMOGRAPHIC TRENDS**

Participants agreed that local and regional population “implosions” and “explosions” are particularly significant in shaping the future demographic landscape. Moreover, one expert posited that population changes among ethnic, religious, and cultural groups may have a greater impact on the future geopolitical environment than relative population changes among nation-states.

### **India and China**

By 2025, India is likely to overtake China as the world's most populous country, perhaps reaching 1.6 billion people by 2050. Experts argued that social tensions and violent conflict stemming from religious and class differences are likely outcomes of ongoing population growth coupled with limited social and economic opportunities for the majority of Indians. Unrest and disturbances may also result due to uneven distribution of political power – representation is based on population distributions that are 30 years old. Ongoing and rapid urbanization also increases the likelihood of violence as people fight for opportunity and control over scarce resources in teeming cities. Finally, greater socioeconomic disparity may also foment problems, especially if poorer groups demand a larger share of the economic benefits that currently reach only a minority of Indians.

Experts agreed that demographic changes are likely to burden China. Its population is aging, stagnating, and could eventually decline. Fertility rates have dipped below replacement levels across the country and are falling particularly sharply in cities, which are growing rapidly as people leave the countryside in search of economic opportunities. Importantly, experts noted that the one child policy amplifies declining fertility, but is not its cause. One demographer argued that eliminating the one child policy would allow China to rebound to replacement-level fertility rates but would have little to no impact on the size of urban populations where people have little interest in having multiple children.

Additionally, a rapid increase of the Muslim minority relative to the Han majority could generate internal cleavages, rendering China more fragile than often assumed. One strategist noted that China's mechanisms for integrating diverse local and regional groups may lose effectiveness if economic growth cannot be maintained. This problem is compounded by the possibility that China will become a net exporter of people within the next 50 years. Certain experts suggested that the segment of the Chinese population that would depart may be the most flexible, adaptive, and cosmopolitan of the Han majority – a group already acting as a powerful diaspora community – while those who remained in China may be more rigidly nationalistic. Not all participants agreed, however, that this would be the case. Some suggested that the remaining population may comprise those who lack the resources and mobility to depart.

These potential trends jeopardize Beijing's ambition of becoming an ingrained global power. According to an academic, if China's population continues to age and stagnate, Beijing is likely to face a "demographics-driven decline in power." Such a situation could lead to increased Chinese aggression, especially if China seeks to assert control over its interests when it perceives its power to be maximal. However, predictions that demographic changes will lead to a major decline in Chinese power are not certain. One expert argued that China's myriad ethnic groups and language communities might lead to internal shifts in relative social, economic, and political strength but not result in major changes to China's strategic trajectory relative to the rest of the world, especially if the regime is able to keep the negative effects of an aging population localized.

### **The Middle East, Africa, and Islamic World**

Yemen's population growth is unrelenting. Fertility rates of eight in the 1980s have only fallen to around six and are unlikely to drop below five in the near future. According to one expert, Yemen "will not reach [the convergence rate of 1.85] soon enough to make a difference in 2050." Instead, its population may reach 85 million by mid-century – a quadrupling of people since 2000. Even UN medium-variant predictions – which experts believed to be low – call for a 255 percent population increase. Yemen's paucity of resources and propensity to churn out extremists makes any prospect of its population doubling, tripling, or quadrupling alarming. In any case, Yemen is nearly certain to increase as a concern for the United States as it combats militant Islamists and safeguards its regional interests.

Experts agreed that a young, unemployed population lacking future prospects is an obvious recruitment target for extremist organizations. Indeed, al Qaida is targeting

Yemen for its next generation of jihadists; according to one expert, Yemen could become the “next failed state providing the next wave of extremists.” Moreover, deficiencies of natural resources and a lack of effective government may force Yemenis to emigrate en masse. It is not out of the question that jihadists and extremists could essentially take over the country.

Rapid population increases in Somalia and Pakistan are also likely to concern the United States. Experts predicted that Somalia’s population will continue to increase at approximately the same rate Yemen’s. Pakistan may grow from 150 to 350 million people in the next 50 years. These massive increases, combined with extreme instability, lack of functional government, and infiltration by Islamist militants and transnational criminals suggest that the challenges emanating from these countries could worsen.

Palestinian and Arab-Israeli population growth is threatening the “Jewishness” of Israel, a feature of that nation that remains integral to its identity. Palestinian birth rates are high due to underdevelopment in the West Bank and Gaza, but experts also argued that many Palestinians are engaged in a “birth war” with Israel. Essentially, demography may be part of a broader political strategy to weaken the Jewish-Israeli state. Generally, experts agreed that variations in population growth among different religious and ethnic groups are likely to exacerbate the intractability of the Israeli-Palestinian conflict.

Experts warned that long-term demographic predictions are difficult to make with accuracy, particularly for countries such as Yemen and Somalia from which reliable data is scarce. Moreover, Iran’s unexpected decline in fertility, from seven in 1985 to just over two in 2000, is a reminder to use predictions of population size cautiously, especially when attempting to describe or explain the future geopolitical environment.

### **Europe and Eurasia**

Europe, including Russia, is “dramatically shrinking,” with one demographer predicting that the continent’s population will decrease from 728 million to 470 million by 2050. Experts agreed that Europe’s pro-natal policies have failed, noted that fertility rates in most European nations are likely to fall to 1.3 or below, and emphasized that there is “massive denial” in Europe as to the consequences of its stagnating and declining population.

Migrants, particularly those from the subcontinent and North Africa, are moving to Europe in greater numbers. Burdened by high taxes and fearing that immigrants threaten their cultural and social identity, white Europeans may relocate. Their departure creates more space for immigrant communities to grow in size and standing. Consequently, Europe may experience “flat out population replacement.” A strategist cited the Netherlands as a particular case of a country likely to experience massive “out” migration, noting that one-third of the Dutch population considered leaving the country after the murder of Theo van Gough.<sup>3</sup> It increasingly appears that the foundations and

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<sup>3</sup> Theo Van Gough was a Dutch filmmaker highly critical of Islam. He collaborated with Ayan Hirsi Ali on the film *Submission*, which portrayed the treatment of women in the Muslim world negatively. Van Gough

traditions of European culture and society may change as non-native communities grow and become dominant in certain regions and countries. As one expert noted, “Paris is now the capital of Africa, and London is the capital of South Asia.”

A majority in all European countries with the exception of Spain and Ireland supports reducing immigration. Ireland is the only country in which more than 10 percent of the population favors increased immigration, unequivocal evidence of the European concern about the sociocultural, economic, and political challenges that immigrants bring. Competition for jobs; social tensions, including instances of violence; and changes to European culture are drivers of this widespread European backlash against immigration. However, European economies – and the basic survival of some European states – are dependent on immigration to compensate for low fertility rates and high levels of emigration.

Turkey is a notable exception to the general trend of stagnating and declining European populations. Fertility rates have fallen from 7 in 1950 to 2.5 today, a substantial decrease but still high enough to sustain population growth: participants predicted that Turkey’s population will increase from 71 million to 115 million by 2050. Of fundamental importance is that Turkey, if it were to become a member, could comprise as much as one-third of the EU’s population. Experts agreed that the prospect of a country that is 99 percent Muslim comprising one-third of the EU is likely why most member states remain disinclined to support membership for Turkey.

Given these trends, participants generally agreed that Europe’s power and prestige is likely to decline. Of particular importance is the possibility that European states become less reliable U.S. allies if traditional cultural and social similarities erode. However, one expert argued that “Europe should not be counted out.” Europe’s population is wealthy and productive and is likely to be as large as the U.S. population in 2050. Europe’s science and technology base and cultural legacy might propel it forward, especially if the continent establishes a common vision or can unite around a clear challenge. Participants noted that anti-immigration sentiment might drive Europeans to reassert themselves based on a more traditional understanding of European identity. Population decline, however, is likely to remain a problem.

## **ECONOMIC CONSEQUENCES OF DEMOGRAPHIC TRENDS**

Changes in the size, structure, and distribution of populations are likely to affect levels of economic growth, development, and innovation in various countries and regions. Workshop participants offered a number of predictions and ideas related to the economic outcomes of demographic trends, but a multitude of variables are reminders that, like demography, economic shifts are difficult to predict with certainty. Ultimately, population changes are one component of a large set of factors that determine global economic outcomes.

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was murdered by Mohammed Bouyeri, a Muslim extremist. There was little overt criticism from Muslim communities around the world.

## **Population Structures and Economic Power**

Generally, both supply and demand increase or expand as populations grow. An economist at the workshop stated that population growth is a “powerful and positive influence on GDP growth.” But other economists cautioned that these general trends assume employment is available and factors of production able to be harnessed. In reality, employment opportunities are limited and stagnant in many places experiencing rapid population growth. Consequently, it may be premature to declare that increased population will drive economic growth in Africa or any other region experiencing a population boom.

Similarly, a stagnating or declining population may pose problems for traditional hubs of economic power, including Western Europe and Japan. The key for these countries is effectively exploiting knowledge industries and leveraging comparative advantage in innovation and entrepreneurship. Unit productivity must be increased to account for the decline in the number of people able to contribute to the economy. Importantly, experts hypothesized that Asian countries may be more willing and able to adapt, innovate, and work hard to mitigate the economic effects of fewer workers. Europeans, the experts suggested, may be less willing to accept that a problem exists and may lack the adaptability and work ethic to do anything about it.

Experts predicted that the knowledge and financial endowments of migrants will shape attitudes and policies toward immigration. Migrants who are educated, knowledgeable, and wealthy are likely to be accepted more readily than those who are not; countries that are exposed to a large number of migrants who have little financial or knowledge capital may be more likely to display anti-immigration tendencies. However, most assessments of the value of immigration are not purely economic: sociocultural factors and perceptions are core drivers and may be unchanging regardless of economic realities.

## **The Knowledge Economy**

Participants emphasized that knowledge will continue to be a crucial determinant of economic growth, development, and power. One economist noted the “changing assumptions about knowledge” and pointed out that knowledge has become “something people invest in.” Further, economic growth is now partially measured by human capital, and knowledge has become an asset explicitly created for economic benefit. The importance of knowledge has been apparent for some time; its relative importance may continue to increase in both the near- and long-term future.

An economist noted that liberalization and trade allows countries to access knowledge, disseminate it, and “use it to create your own.” The economist argued that the awareness of the importance of knowledge and recognition of an “accelerating knowledge frontier” was a reason for China’s original and ongoing liberalization and the choice of other countries to connect to a globalized world economy. Closely linked to the increasing importance of knowledge is the premium placed on invention and innovation. Countries and regions are likely to prosper if they can become pioneers of creativity and invention. One expert noted, however, that “invention and creativity is not what makes you rich.” Rather, creating and institutionalizing a repeatable process for innovation generates long-

term economic success. According to a scholar, “getting better at it and doing it cheaper is what matters.”

Experts also agreed that future economic success at the national level is likely to depend on the ability of countries to produce and supply goods and services that are lucrative and in demand. In this regard China appears well-positioned: low-end production is increasingly moving to countries where labor costs are cheaper, and China is focusing on higher-end products and services. India’s advantage lies in its position as a nexus of information handling, which has, according to one expert, become the largest industry in the world. However, India’s advantage in this regard may not be sustainable. The proliferation and miniaturization of technology is enabling greater dispersal of information handling. An expert suggested that “there may be places in Africa that can do more in this regard.”

## **FACTORS SHAPING THE GLOBAL ENVIRONMENT**

### **Elite/Popular Divide**

The gap in worldview and ideology between elites and the masses, particularly between younger elite cohorts and an older mainstream population, may be a significant factor in shaping social relations within and between countries. Elites, especially those from younger generations, tend to have exposure to a cosmopolitan culture that values diversity of people and ideas – the “other” is seen as a colleague. But the masses tend to perceive the “other” as a threat or challenge that encompasses something alien not easily reconciled with longstanding beliefs. Further, the worldviews of older population cohorts, especially among the masses, are often rigid and less likely to be amenable to new influences.

Social tensions may emerge if a subsection of the older population – or the masses in general – actively resists the efforts of younger elites to promote cosmopolitan ideals or bring about major sociocultural change. One expert argued that we know two things about people 45-75 years old: “they have more stuff, and they are more rigid.” The same expert noted that members of this cohort are likely to protect what they have, perhaps becoming “territorial and reactive.” The masses that comprise this age group tend to vote more than other groups and may wield disproportionate influence in politics. However, experts also noted that the elite are often able to “bamboozle” the masses by using communications and technology tools to sensitize their populations to the sociopolitical ideas aligned with the elite worldview.

### **Urbanization**

The population of cities now exceeds that of non-urban areas. This trend is nearly certain to continue throughout the twenty-first century; by 2030, it is likely that two-thirds of humanity will reside in cities. According to one expert, “the countryside will be emptied out...rural-urban migration will soon be complete...you will have huge cities with huge airports taking people wherever they want to go.” Forest re-growth in many parts of the world, including New England, Ontario, vast parts of Russia, and the northern Amazon,

the natural resources of which have been exploited or heavily strained, is evidence of a sustained global trend of urbanization.

Rapid urbanization threatens the sustainability of massive cities in developing nations. Many of these cities are little more than extended slums: vast, densely populated spaces that do not receive or provide services and are largely ungovernable. In many cases, the actual population of these urban conglomerations is impossible to discern. Youth, unemployment, and violence coalesce in these environments, creating challenges to which policymakers may be increasingly required to respond.

A final consequence of ongoing urbanization is that people are moving away from resources. Metropolises, primarily located on the coast, will hold the people who are dependent on resources that are often located a considerable distance from cities. The number of people available to extract resources and deliver them to urban centers is likely to continue to decrease. As such, moving resources to cities efficiently and in sufficient quantities is likely to be a key challenge in the future.

## **Energy**

The potential existence of massive oil and gas reserves on offshore continental slopes could substantially alter global economic and political balances of power. Discoveries have occurred on continental margins off the coasts of Brazil, Newfoundland, India, Israel, and Africa – far more locations than most engineers believed deposits to be located – and likely exist across the majority of continental margins. Greater ubiquity in the distribution and potential ownership of hydrocarbons suggests that the small handful of nations that are presently net suppliers of oil and gas may see their ability to exert control over the global energy market weaken. At the same time, these reserves could provide poorer countries with much-needed resource reserves that, if properly managed, could facilitate those countries becoming economically competitive.

However, some nations may not be able to bear the expense of discovering and accessing these reserves. Sustaining drilling operations is even more costly; states that begin exploitation may lack the resources to continue those operations over the long term. A further complication is the difficulty in protecting people and physical assets engaged in extracting energy resources from states and non-state groups with nefarious intentions. According to one expert, the U.S. Government, Navy, and Coast Guard have few plans on which they can draw to secure substantial amounts of offshore oil infrastructure. It is also unlikely that other countries have taken significant steps to ensure safe access to offshore energy reserves.

More generally, participants argued that global economic activity may migrate to sources of cheap energy. The trend in the developed world is to make energy expensive; however, inexpensive energy and electricity is a vital asset for companies, conglomerates, and countries. Experts identified South Korea's investments in cheap power to attract server farms as a calculated strategy for national wealth creation that bears watching. Nations that drive up the cost of energy could find themselves economically outflanked by countries that provide cheap energy and technology conducive to growing businesses.

## **Mobility**

People are traveling more frequently to a greater number of destinations and can reach these destinations more quickly and cheaply than ever before. Short-term declines aside, travel volume is increasing and is likely to continue to do so in the long run. Increased travel is both temporary and permanent; experts were clear that as global income and living standards increase, people will take more trips of short duration and be more prone to migrating, moving to areas where they perceive better economic or lifestyle opportunities. Importantly, these migrations may occur numerous times as personal goals change and new opportunities emerge.

The increased ability of the global middle class to travel by air is resulting in the breaking down of borders, boundaries, and frontiers. Even relatively poorer people are now able to afford air travel. One expert stated that “aviation is the source of the new mobility.” Americans now spend an average of three to four minutes per day on an airplane each year, boarding increasingly massive planes that can hold upwards of 800 people and fly 18 hours nonstop. One expert argued that emergent massive air hubs are strong indicators of migration patterns, which have typically been difficult to measure, and suggested that these hubs may be located in the places that become new economic or political centers of power and influence. Other experts contended that travel might decline as communications technologies render it easier to stay linked to a range of communities around the world, but participants overwhelmingly concluded that communications and travel technologies are complementary goods.

## **Female Empowerment**

The ongoing empowerment of women, which includes greater sexual freedom and access to education and employment, is a major cause of declining fertility rates in many developed countries. Women now receive 57 percent of all university degrees in countries in the Organization for Economic Cooperation and Development, and between 43 and 49 percent of PhDs, MDs, and JDs in the United States. Children are becoming less important to women as women’s role in society broadens and deepens. Consequently, women have fewer children and develop individual lifestyles that emphasize cultivating and maintaining personal freedom and choice over their sexual partners, marriage, and family size. Importantly, less developed countries where women have yet to reach the level of empowerment and freedom they have in the West are generally the societies in which fertility rates remain high.

## **Sustained Low Fertility**

Experts emphasized that it is nearly impossible to rebound demographically once a nation’s fertility rate falls below 1.5. In these cases, the paucity of women able and willing to bear children creates a demographic “black hole.” Japan, South Korea, and most European countries are particularly susceptible to these black holes. Scientific and technological developments may make it possible for women to have children later in life safely, but it is not clear that women would choose to have children at the age of 50 or 60, even if technology makes it possible to do so.

## POTENTIAL GEOPOLITICAL IMPLICATIONS

Participants made a series of predictions about the character of the future geopolitical environment. However, it remains unclear how demographic changes might affect geopolitical competition. Predictions and ideas included the following:

- Participants offered three possible characterizations of the future geopolitical environment:
  - Multipolarity, with competition among several great and middling powers;
  - Preponderance of U.S., Chinese, and Indian power that is relatively stable, particularly if the United States and India can cooperate in Asia effectively;
  - U.S. unipolarity.
- State-level conflict may be more likely to occur between emerging states jockeying for relative advantage but are not yet global powers. The United States could be drawn into these conflicts or wars rather than being a central player in a confrontation with a peer or near-peer challenger. However, the United States may still find its hegemonic status directly challenged by rising states in a world that many countries perceive to be increasingly multipolar.
- If the United States welcomes an increasing diversity of migrants it should be prepared for those individuals and groups to use the U.S. homeland as a venue to play out conflicts from which the United States otherwise would likely be absent. In many cases, the United States will wish to avoid embroilment in these conflicts, but their localization on U.S. territory and among territorial populations would likely force a more active role.
- Cooperation maybe increasingly defined by of pragmatic alliances and coalitions formed to address a specific issue. Traditional alliance systems may be less important than finding partners concerned with specific challenges at hand. Partnerships may be fungible, requiring states to maintain a flexible approach to addressing global problems.
- States may amass substantial monetary and soft power but remain peripheral global actors. Saudi Arabia is one such example – experts noted that money and influence does not automatically yield the ability to shape the geopolitical environment.
- New ideologies may be a mechanism to reenergize countries and regions with declining populations. Experts noted that environmentalism is becoming an increasingly influential ideology, but its anti-human focus is unlikely to give rise to a renewed human vigor in regions such as Europe where it is most influential.

**NEXT 100 YEARS WORKSHOP**

**THE NEW INTERNATIONAL  
POPULATION ORDER**

(b) (7)(C)

**Center for Migration Studies  
New York, NY**

**Office of Net Assessment  
Arlington, Virginia  
29 April 2009**

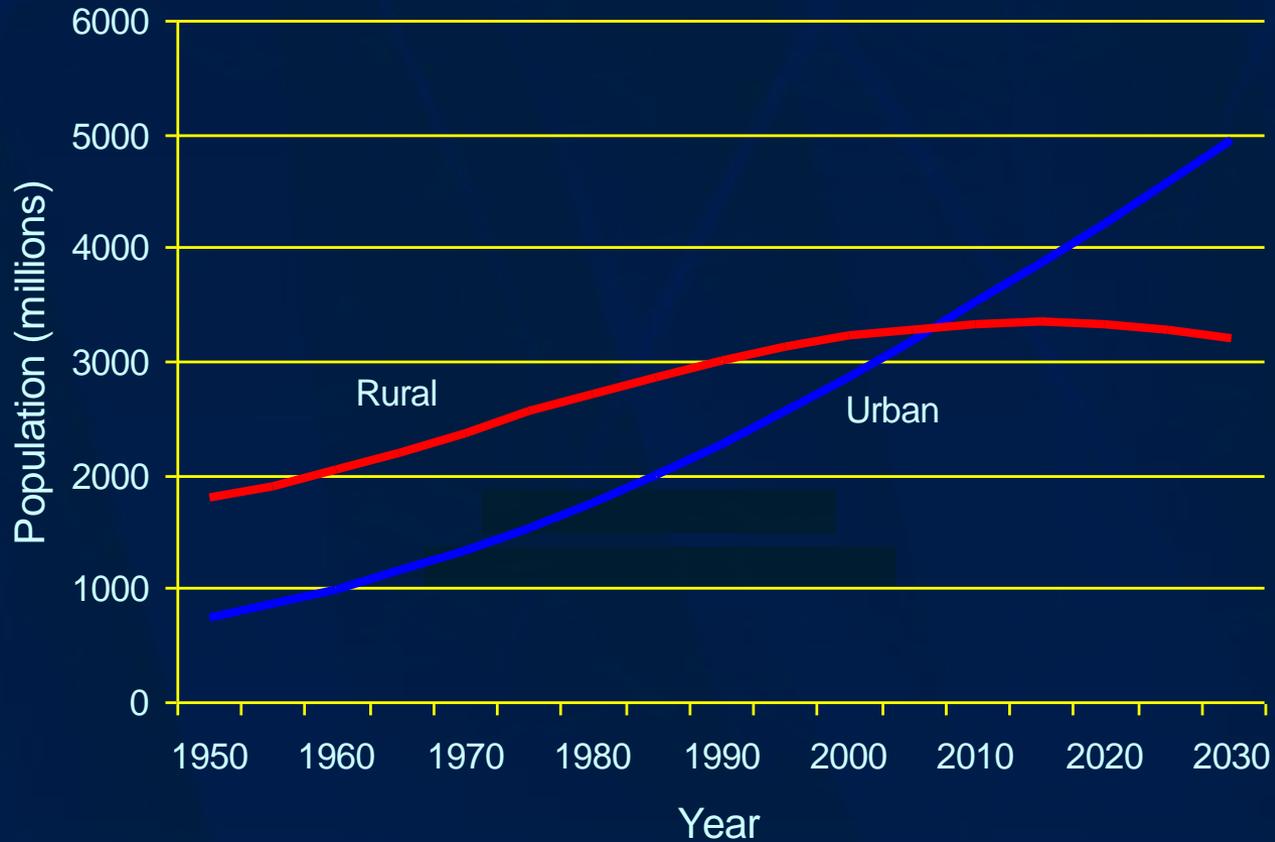
Historians may well  
conclude that the most  
significant event of the  
20<sup>th</sup> century was ...?

the growth of world population.

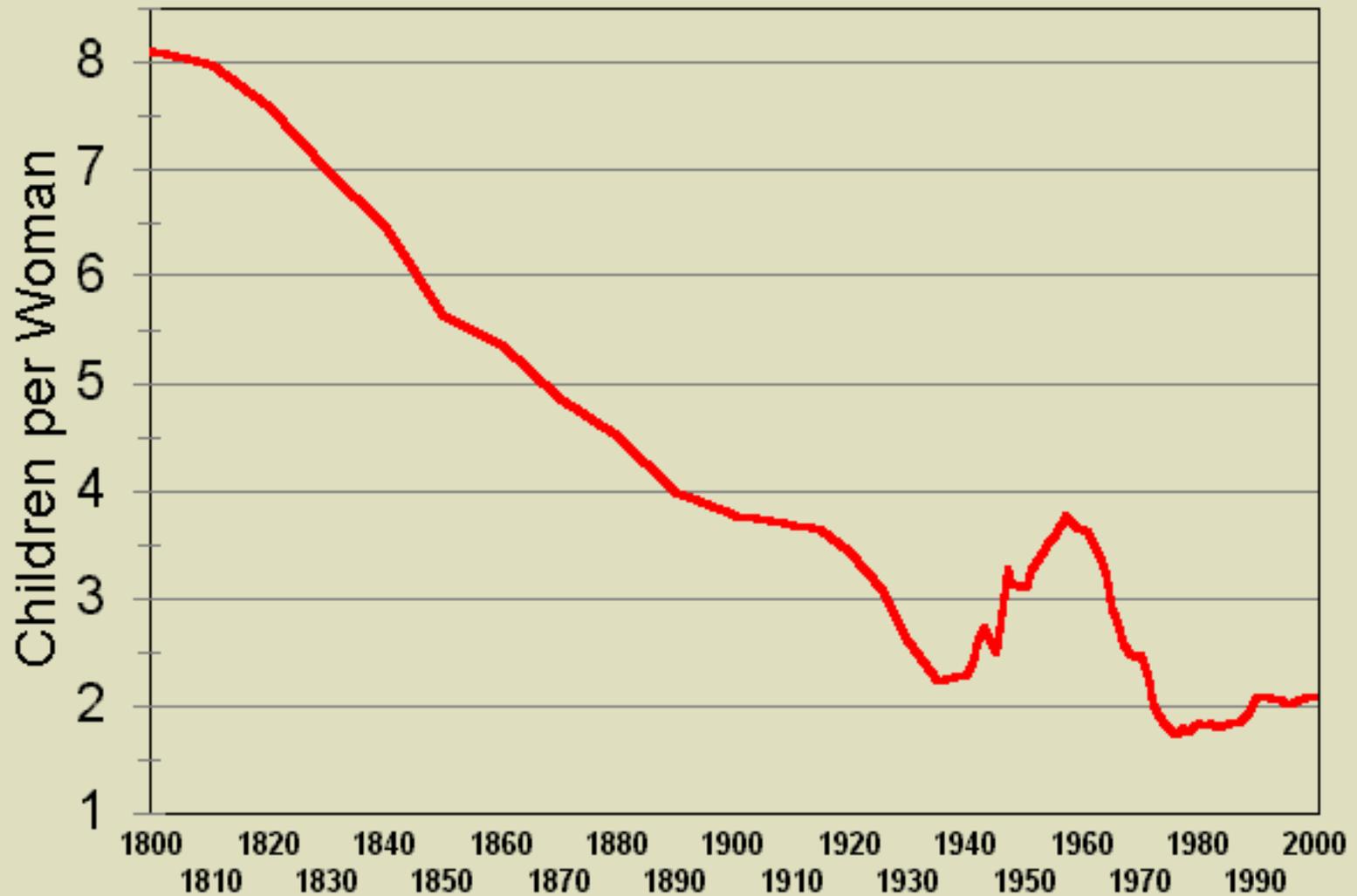
# World Population Milestones

| <u>Population</u> | <u>Year</u> | <u>Years to add 1 billion</u> |
|-------------------|-------------|-------------------------------|
| 1 billion         | 1804        | start of humanity             |
| 2 billion         | 1927        | 123 years later               |
| 3 billion         | 1960        | 33 years later                |
| 4 billion         | 1974        | 14 years later                |
| 5 billion         | 1987        | 13 years later                |
| 6 billion         | 1999        | 12 years later                |
| <i>7 billion</i>  | <i>2011</i> | <i>12 years later</i>         |
| <i>8 billion</i>  | <i>2025</i> | <i>14 years later</i>         |
| <i>9 billion</i>  | <i>2044</i> | <i>19 years later</i>         |

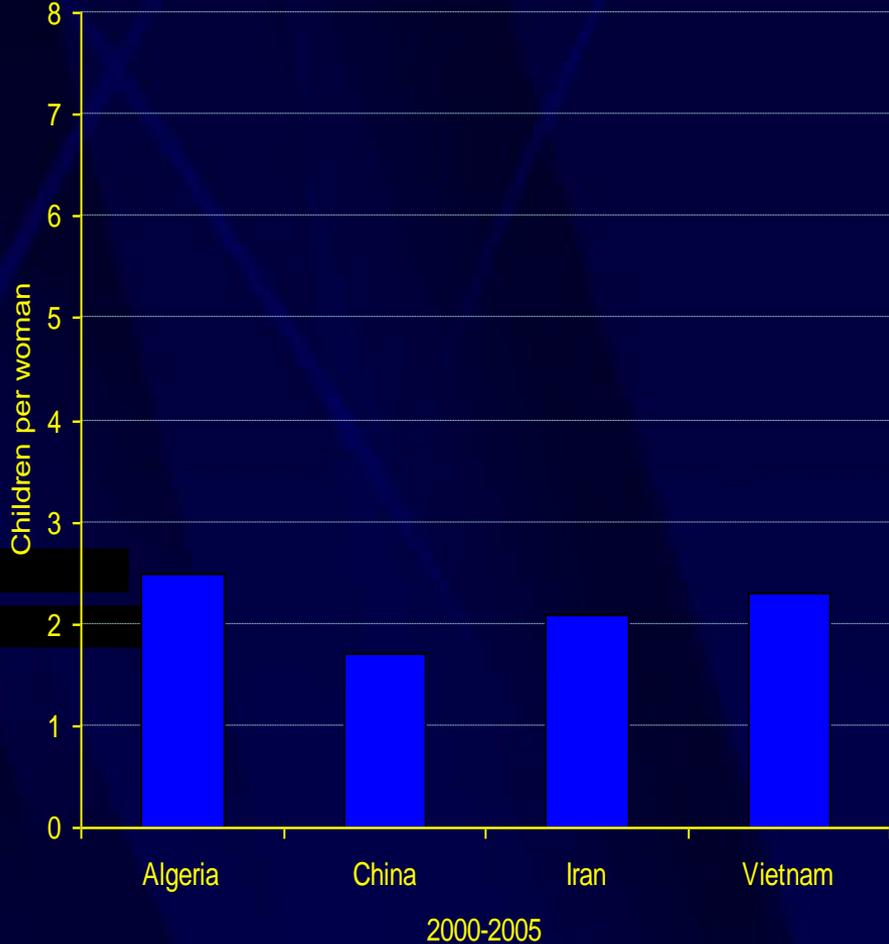
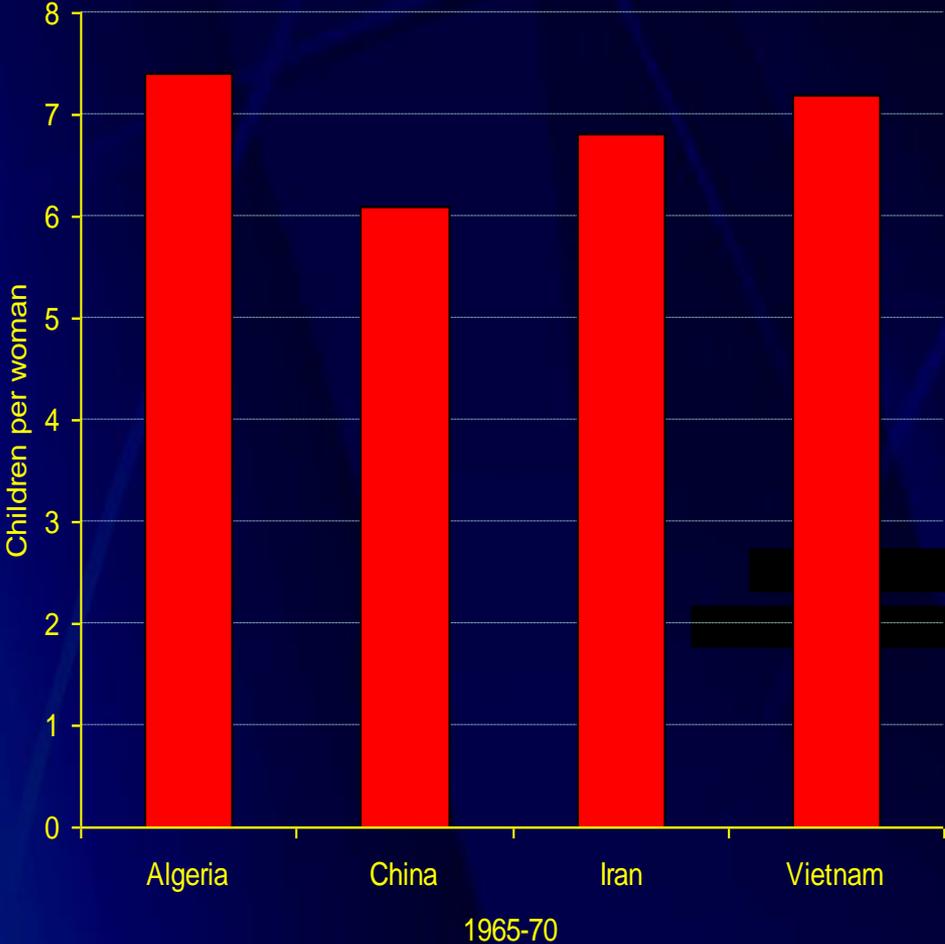
## Urban and rural populations of the world: 1950-2030



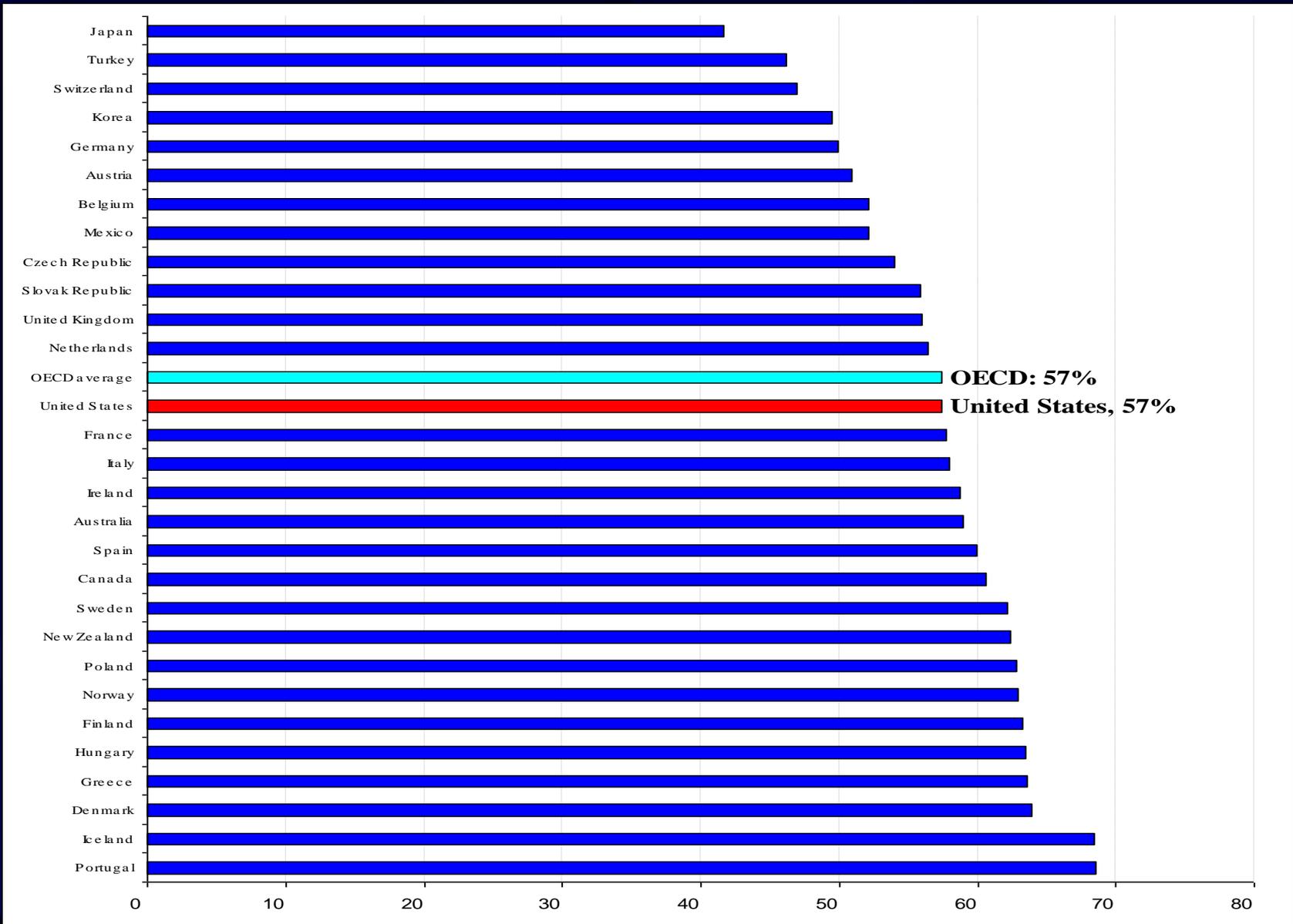
## Total Fertility Rate, U.S., 1800-1999



# Children per Woman in Algeria, China, Iran and Vietnam: 1965-70 & 2000-05



# Percent University Degrees Awarded to Women in OECD Countries: 2004



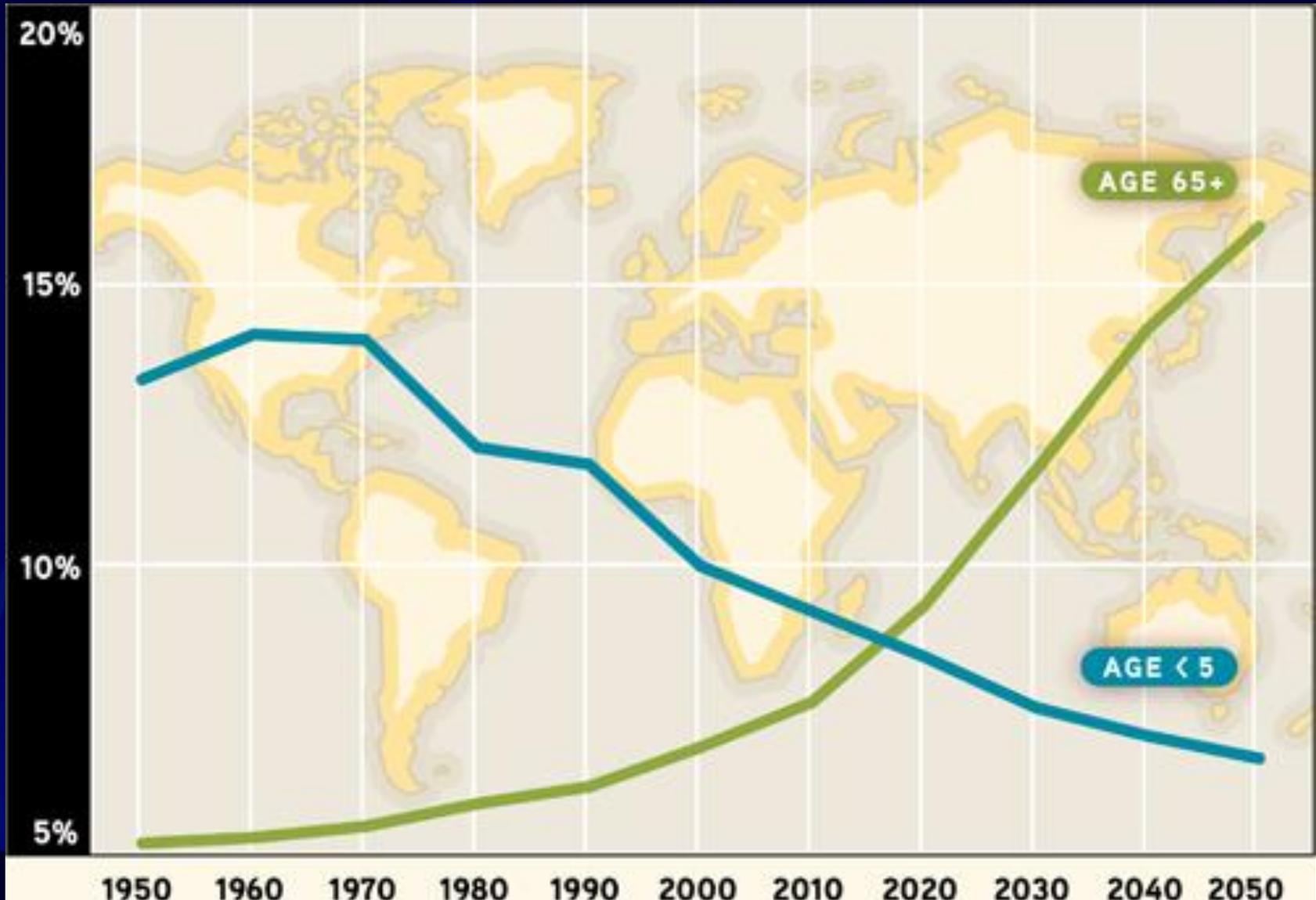
# Proportion of Degrees In USA Awarded to Women: 1970 & 2000

|          | <u>1970</u> | <u>2000</u> |
|----------|-------------|-------------|
| PhDs     | 13%         | 49%         |
| MDs      | 8%          | 43%         |
| Law      | 5%          | 46%         |
| Dentists | 1%          | 40%         |

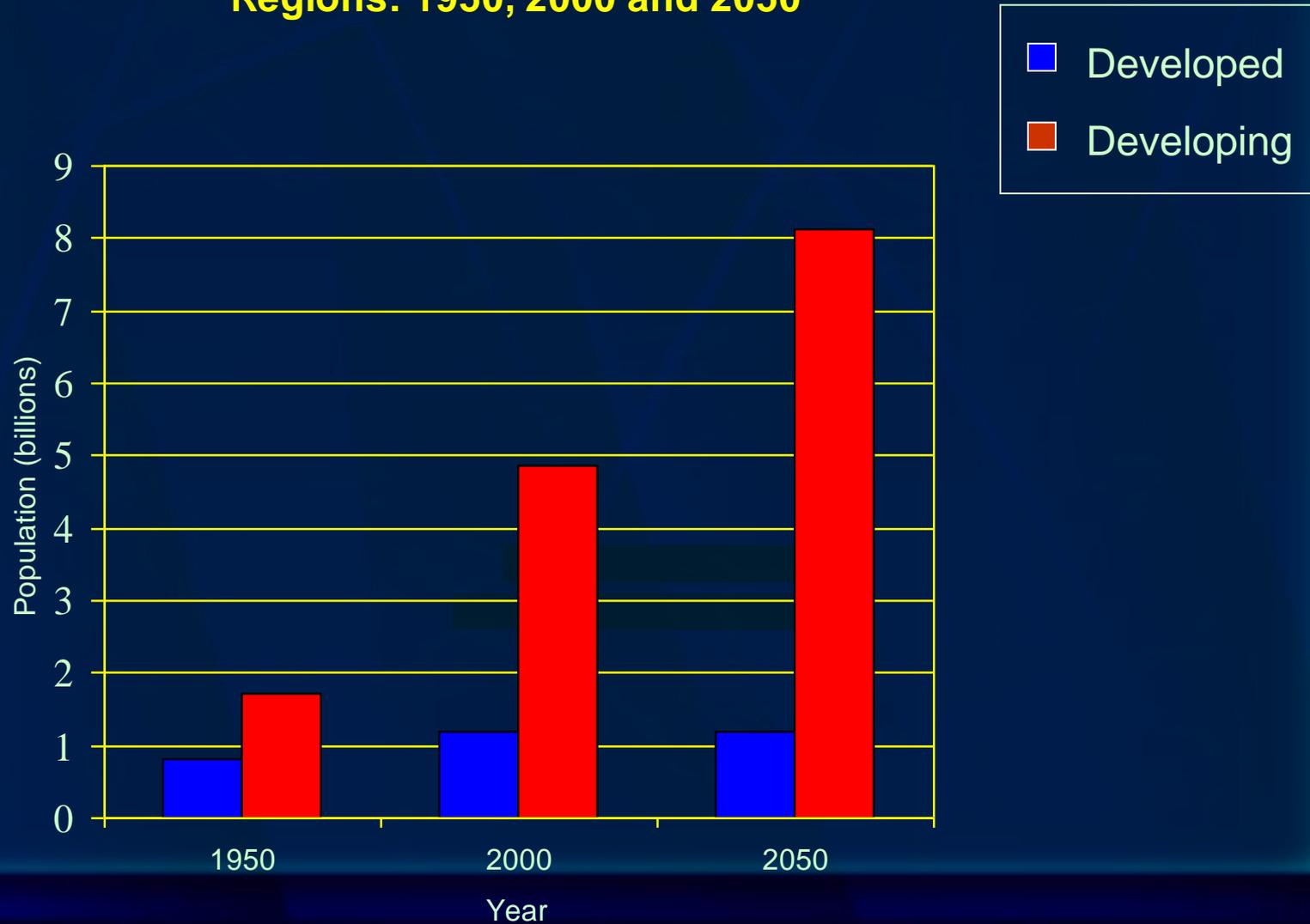
And among the likely most significant events of the 21<sup>st</sup> century may be ...?

the ageing of humanity.

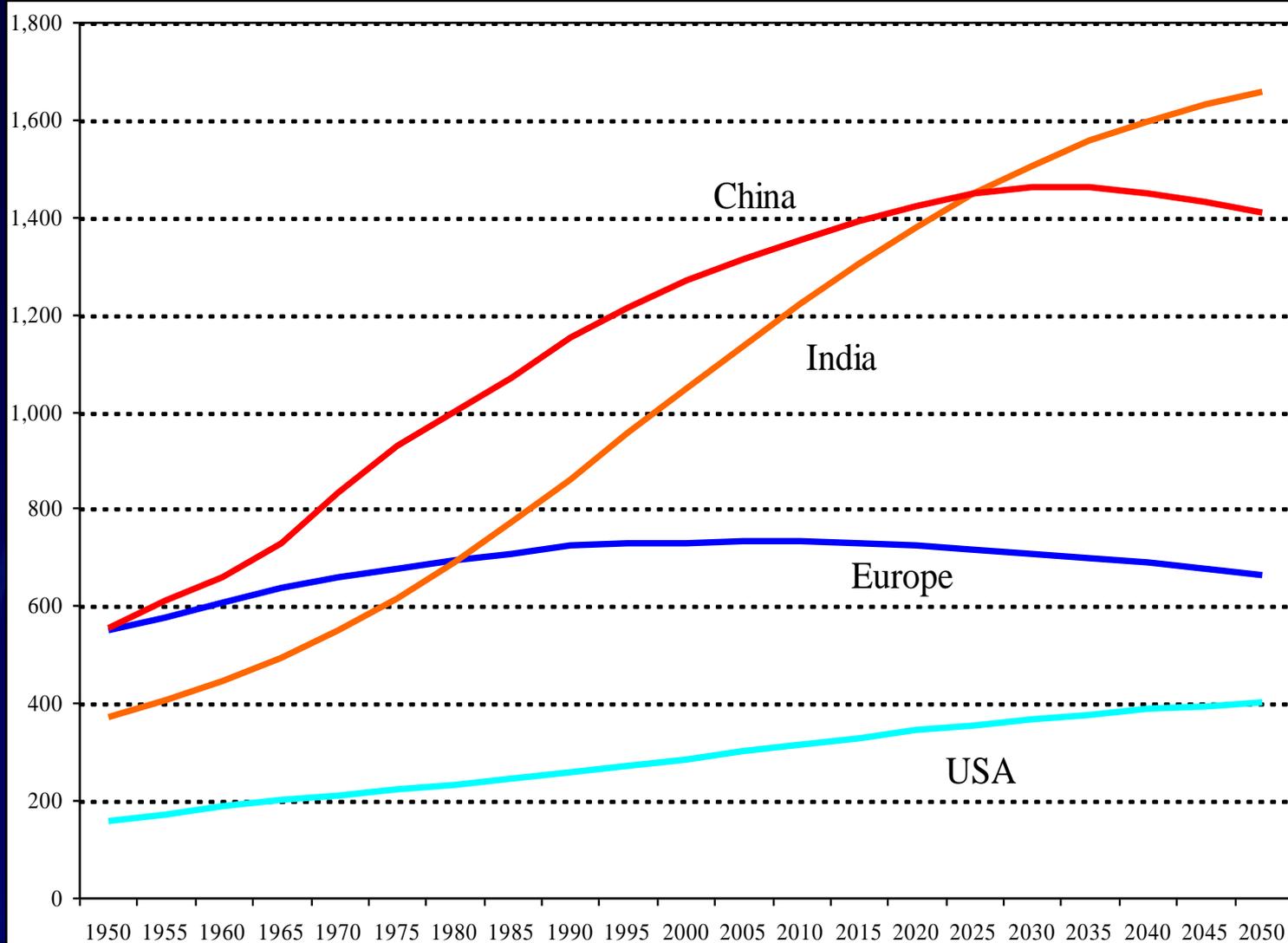
# Proportions Aged 65+ and Under Five: 1950-2050



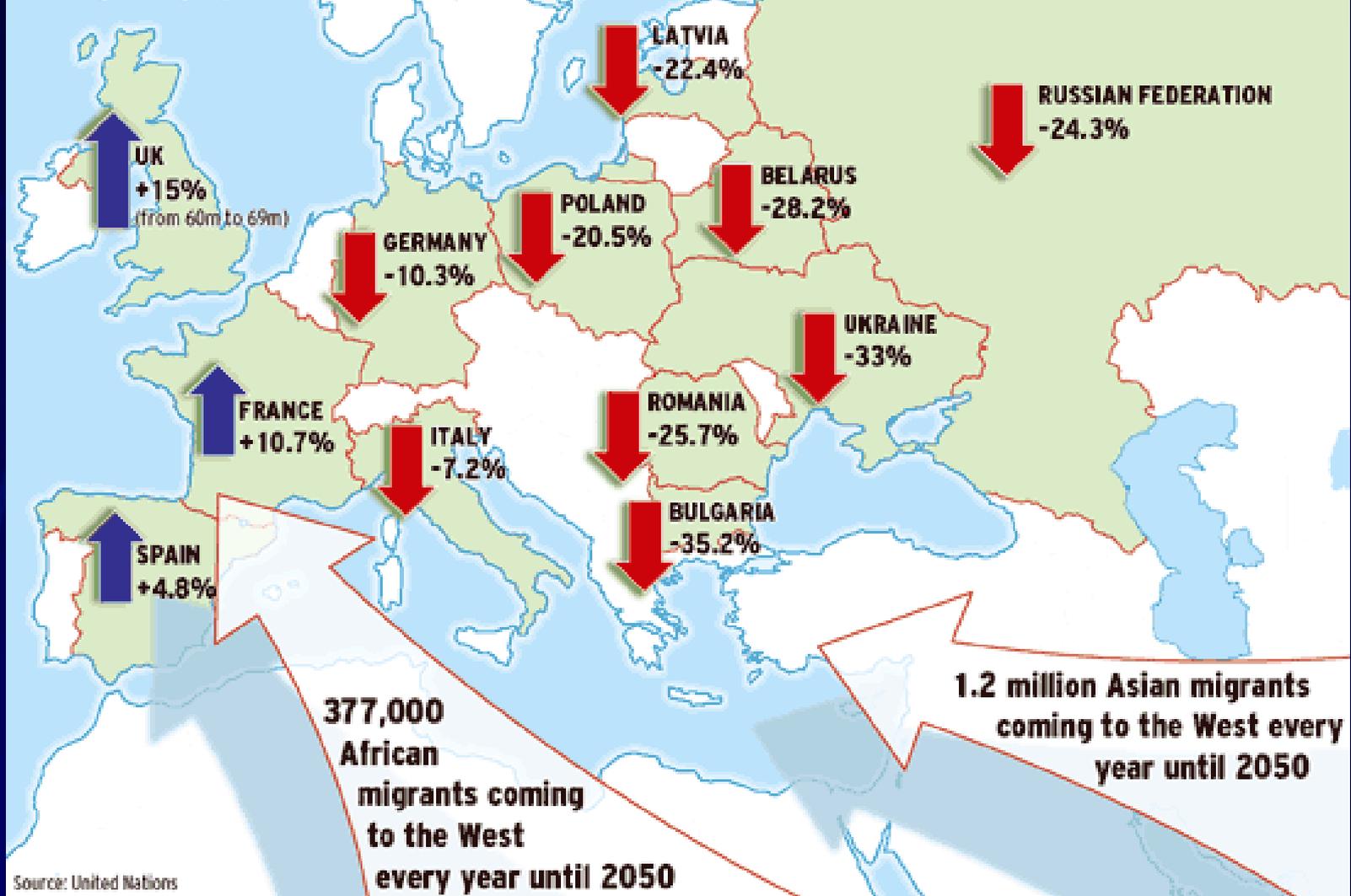
## Population of Developed and Developing Regions: 1950, 2000 and 2050



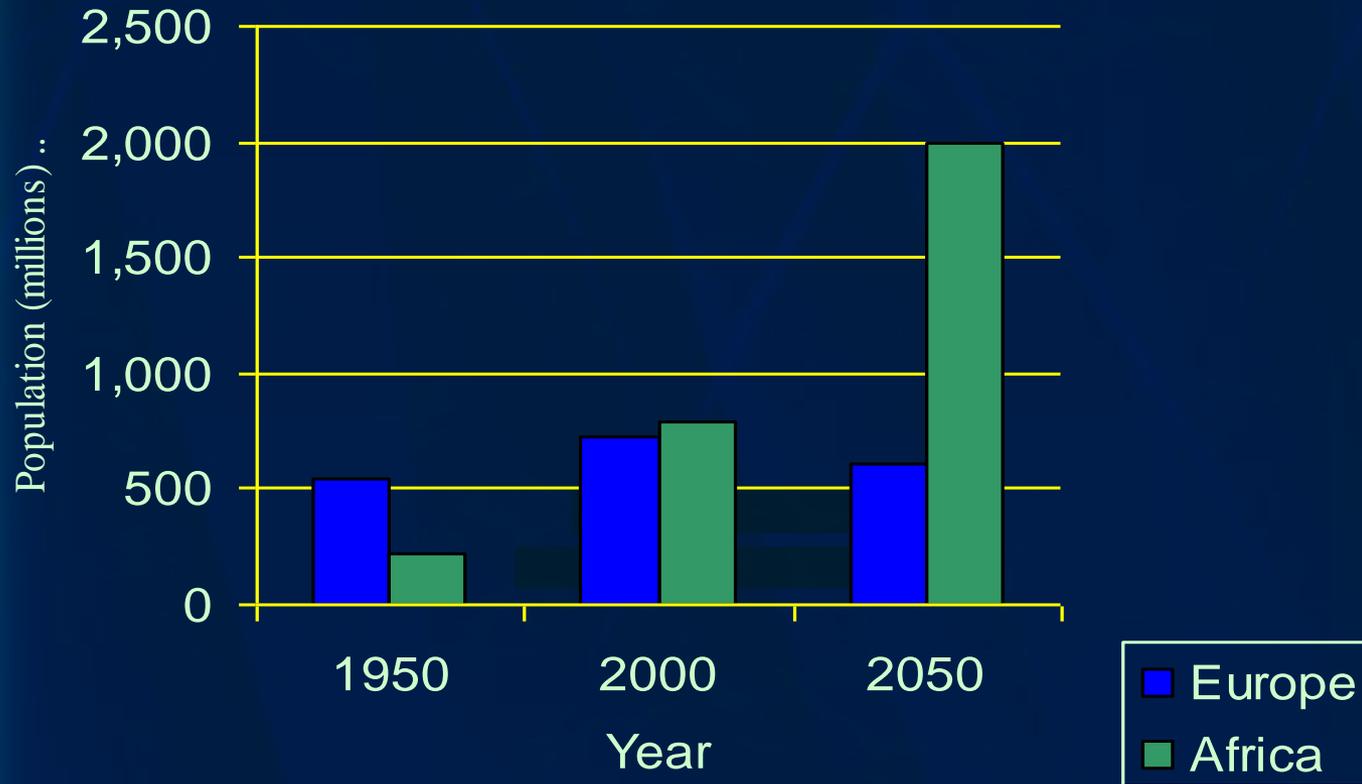
# Population of China, India, Europe & USA: 1950-2050 (millions)



## Europe's population change 2007-2050



## Population of Europe and Africa: 1950, 2000, 2050



## Population of Russia and Pakistan: 1950, 2000, 2050

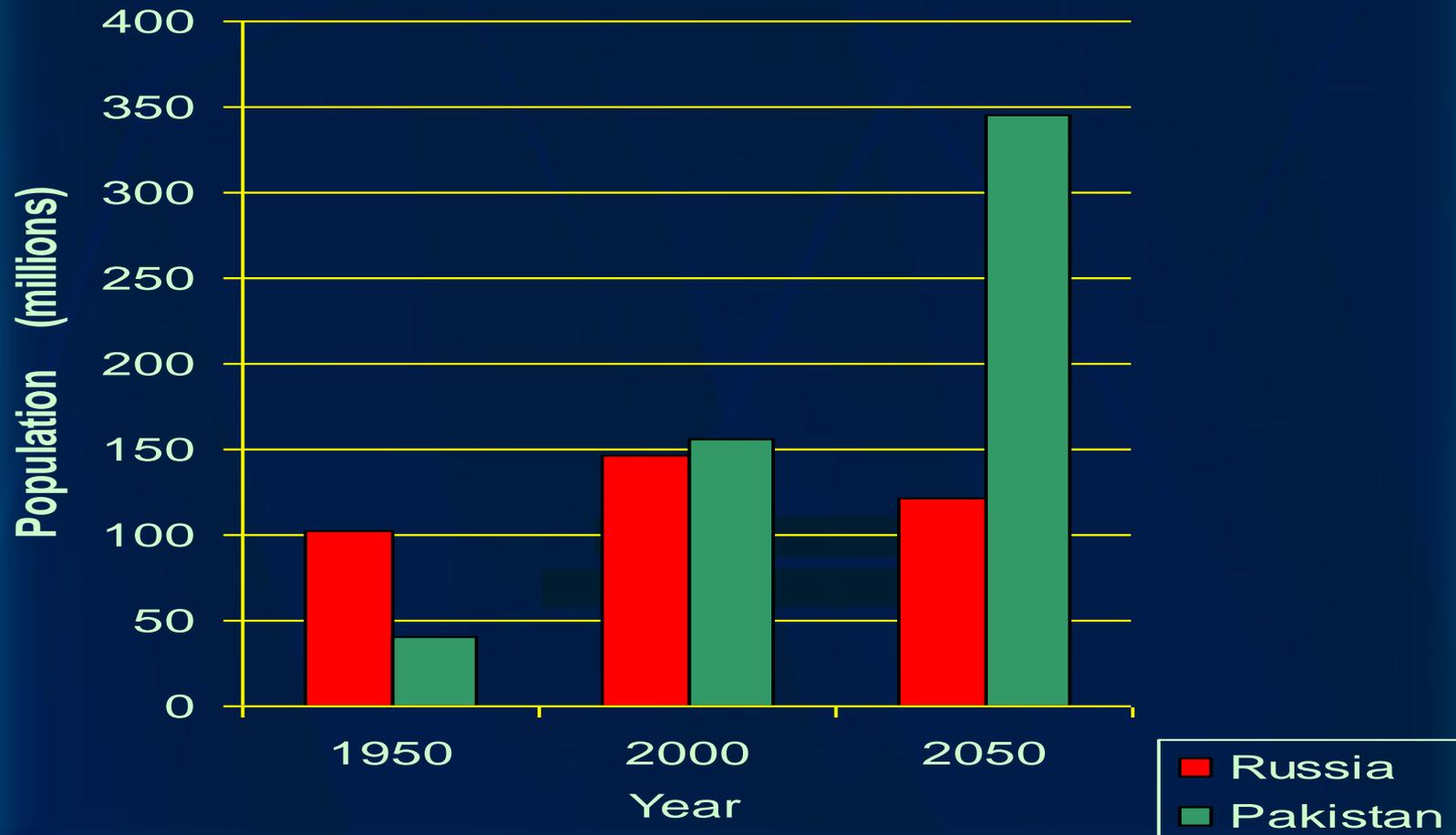
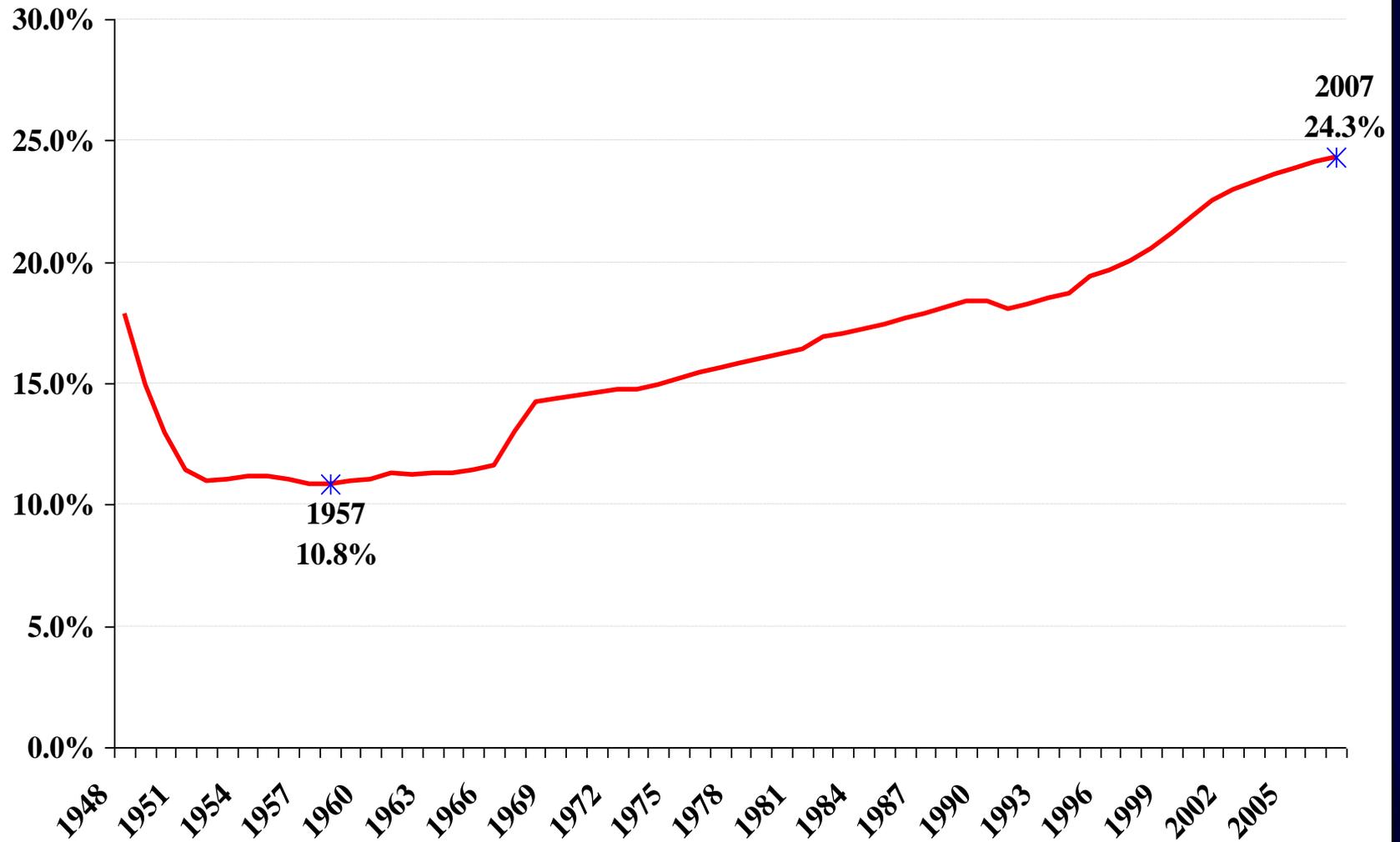




Figure 5. Proportion non-Jews in Israel: 1948-2007





# ISRAELI SETTLEMENTS IN THE WEST BANK

*Mediterranean Sea*

- ▲ Israeli settlements
- Settlement blocks
- ▨ Israeli constructed roads

- 1 Jerusalem
- 2 Jenin
- 3 Nablus
- 4 Tulkarm
- 5 Ramallah
- 6 Jericho
- 7 Bethlehem
- 8 Hebron

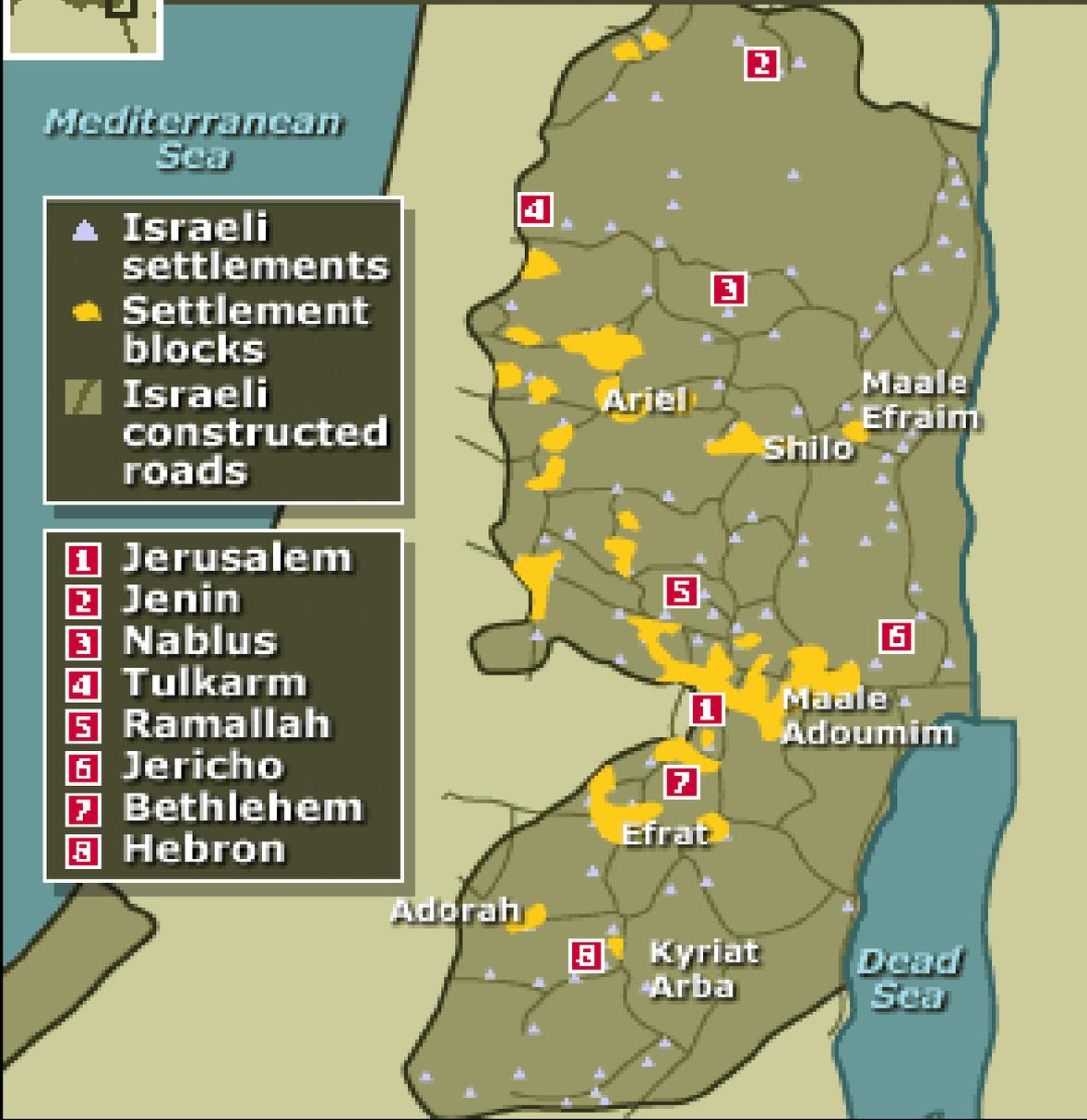
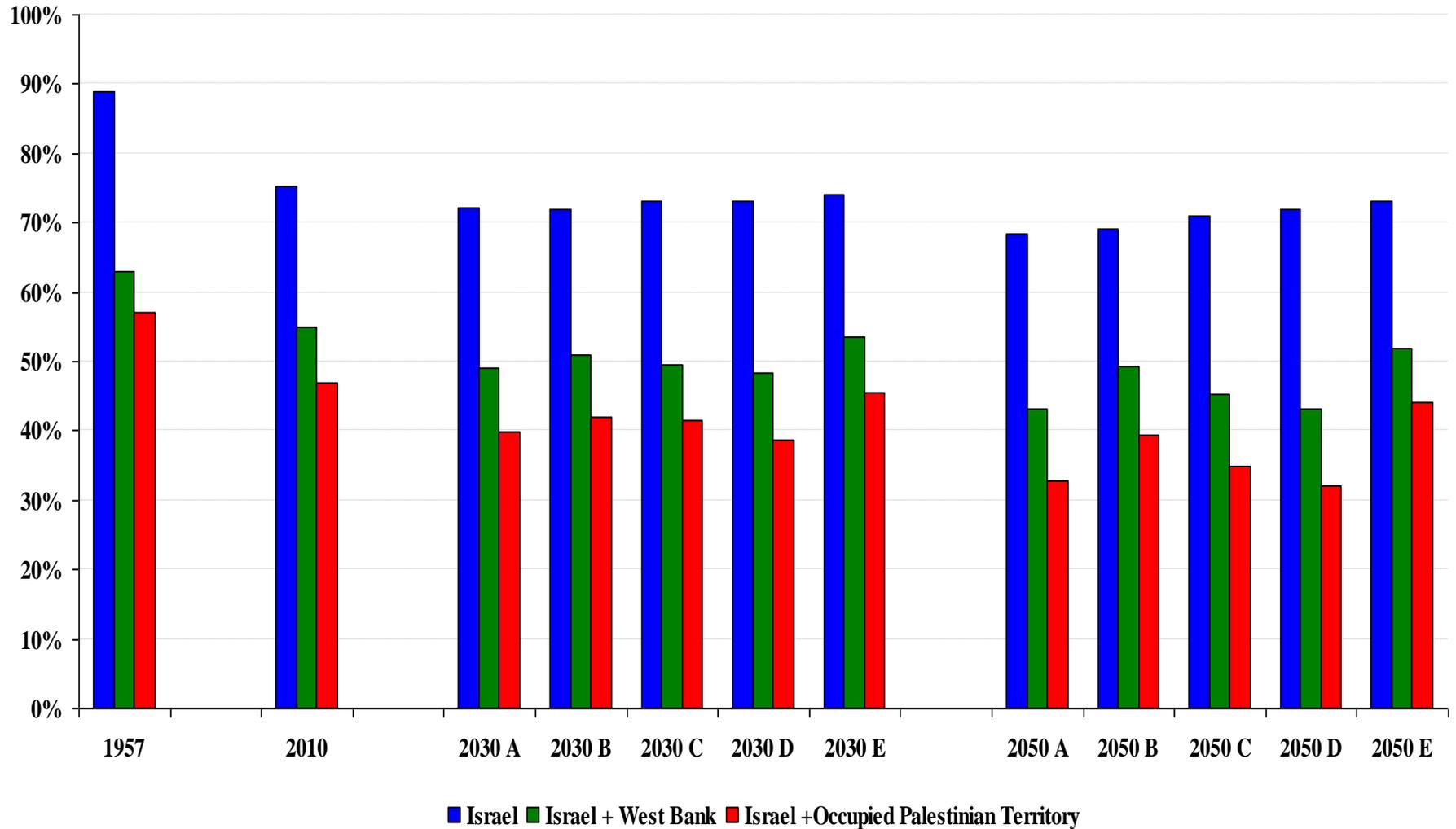
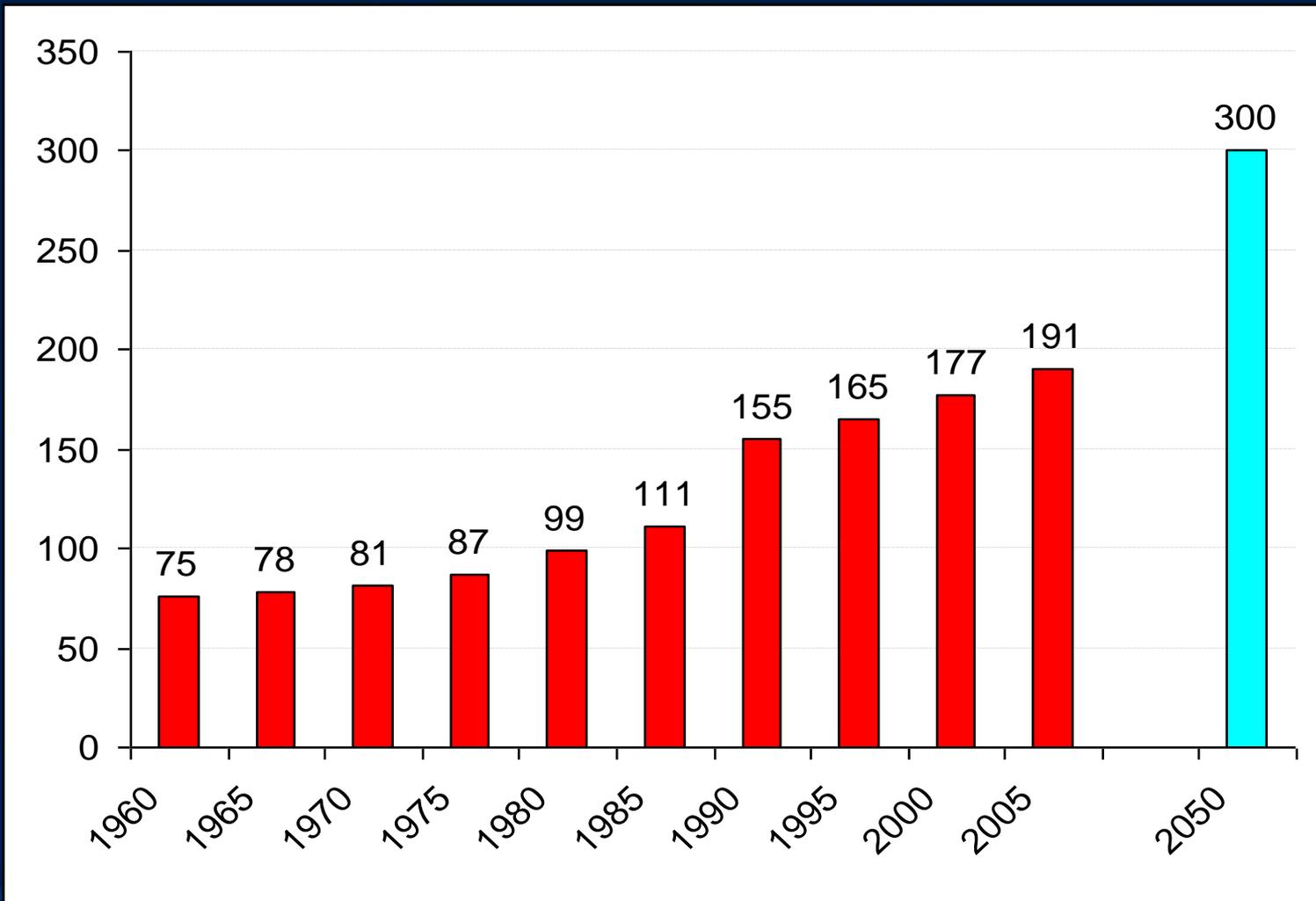


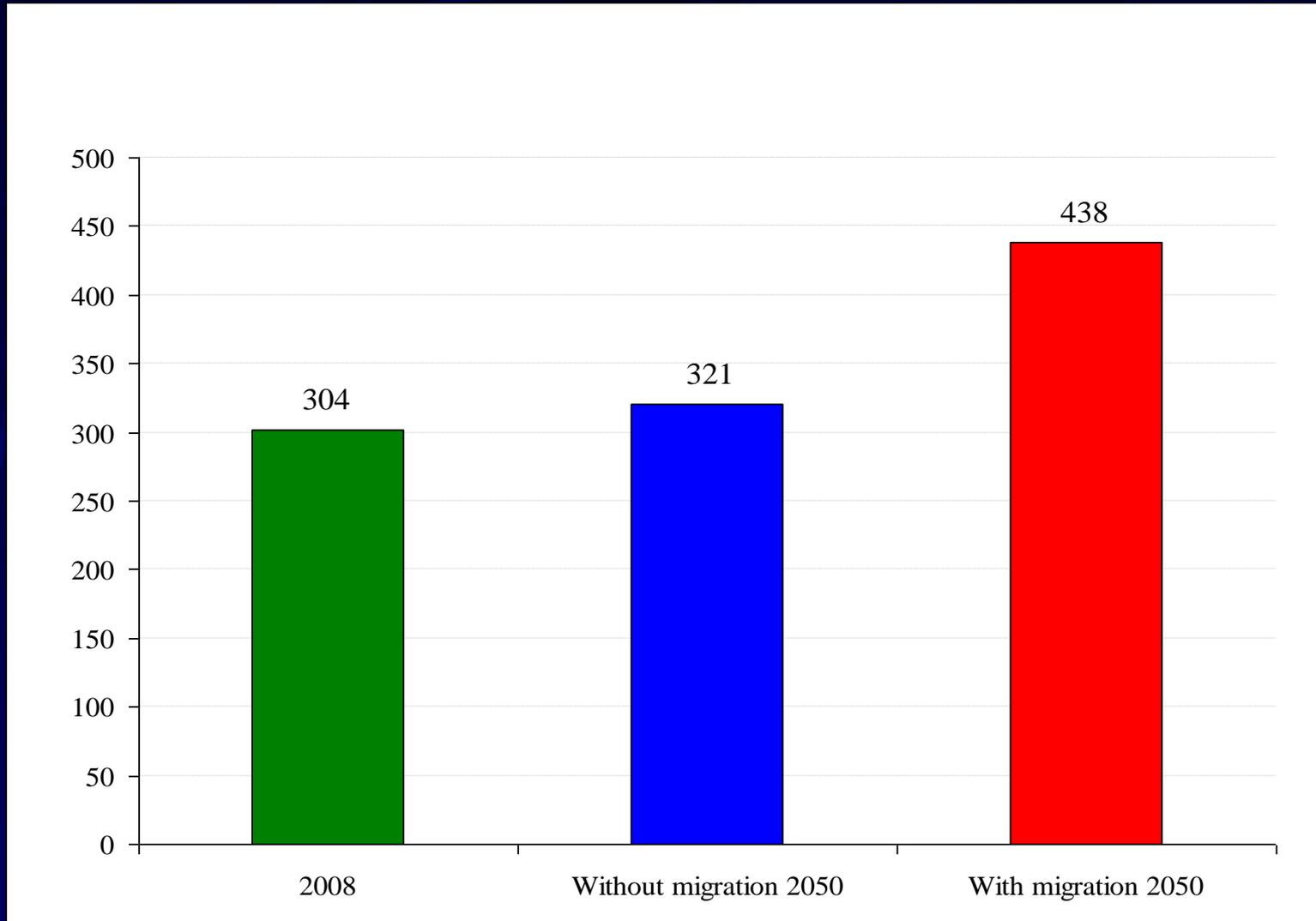
Figure 12. Proportion of Jews in Israel, Israel plus West Bank and Israel plus Occupied Palestinian Territory by Variant:  
1957, 2010, 2030 and 2050



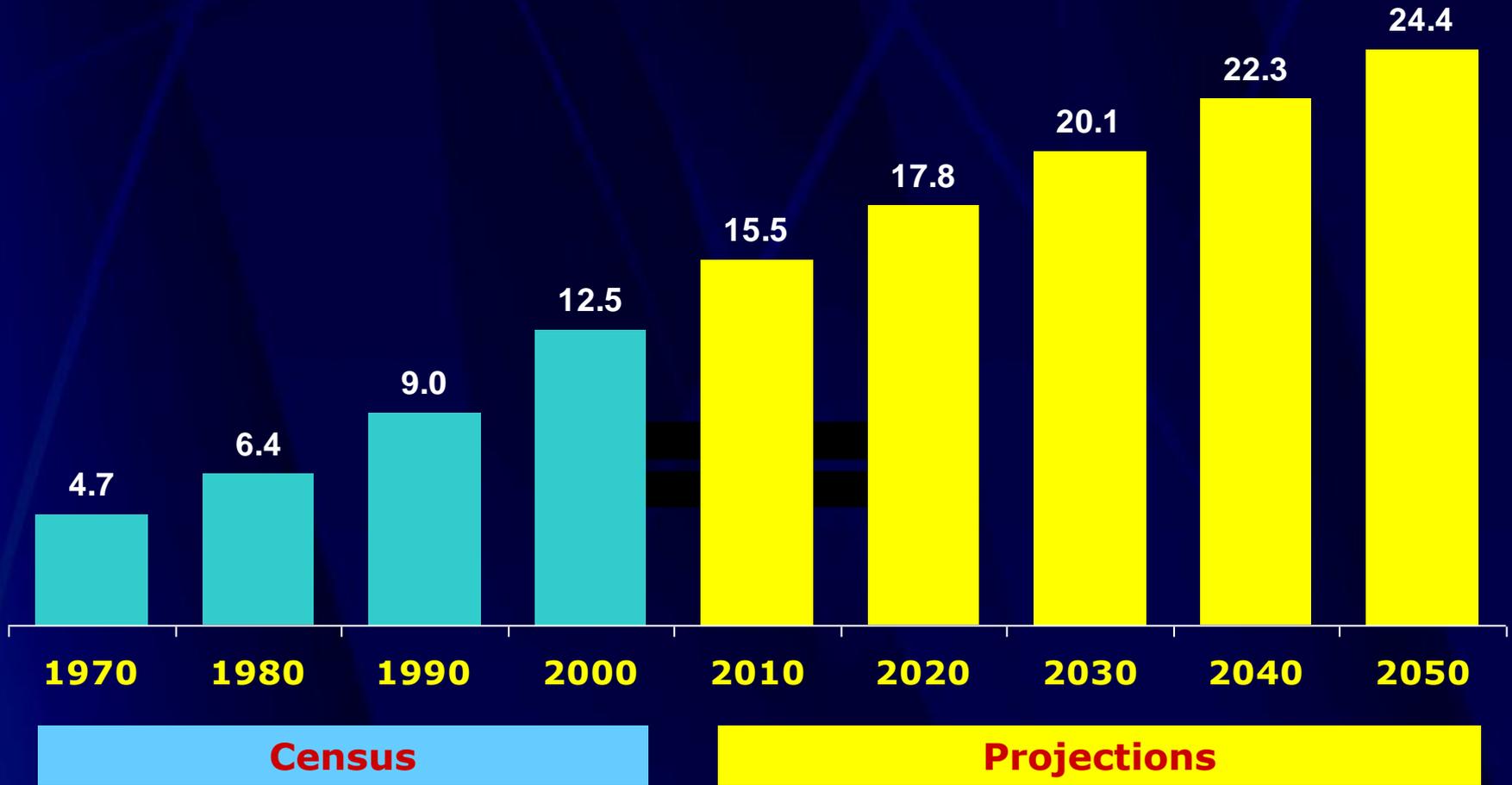
# Global Migrants: 1960-2005 & 2050



# US Population With and Without Immigration: 2008-2050 (millions)



# Percent Hispanic of Total U.S. Population 1970–2050



# Universal Declaration of Human Rights

## Article 13

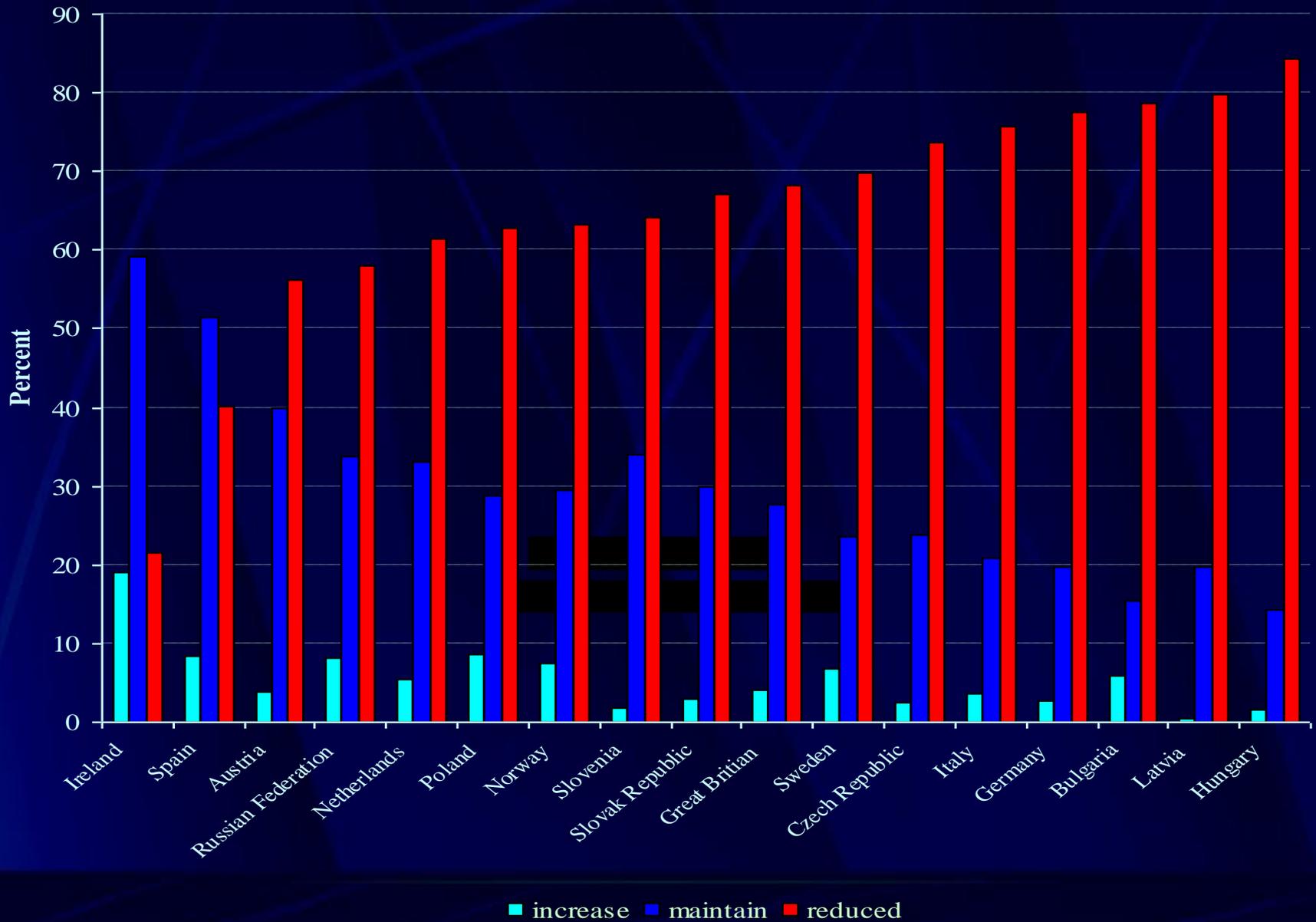
- (1) Everyone has the right to freedom of movement and residence within the borders of each state.
- (2) Everyone has the right to leave any country, including his own, and to return to his country.

**BUT:** no right to entry another country.

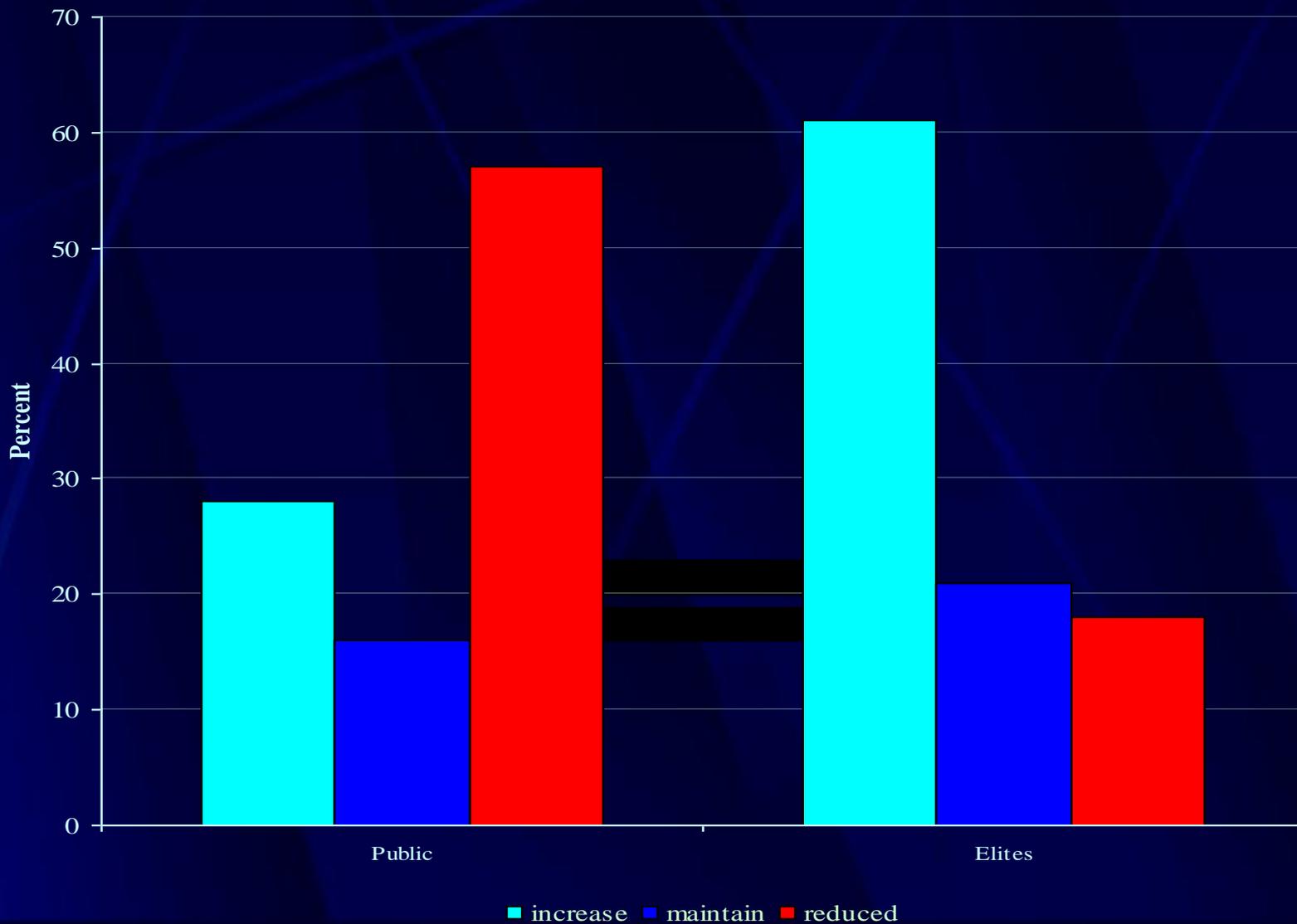
# Risk-takers and frustrated officials.



# View of Immigration by European Public



# View of Immigration by US Public & Elites





# Pour plus de sécurité

Ma maison – notre Suisse



CCP 10-9024-6

Pour une Suisse forte

"They couldn't regulate immigration. Now they live in reservations! *Think about it.*"

**LORO  
NON HANNO  
POTUTO  
METTERE  
REGOLE  
ALL'IMMIGRAZIONE  
ORA VIVONO  
NELLE RISERVE!**

*Pensaci*

# World Population in 21<sup>st</sup> Century

1. Larger world population
2. More concentrated in less developed regions
3. Population decline in many developed countries
4. Lower fertility
5. Lower mortality

.../

# World Population in 21<sup>st</sup> Century

6. Progress in women's equality
7. Changing family composition and structure
8. Older populations and increased longevity
9. More urbanized and larger cities
10. Increased international migration and diversity