

# The Arab Spring and Oil: 1970s Revisited?

**Amy Myers Jaffe**  
Executive Director  
Energy and Sustainability  
University of California,  
Davis



**James A. Baker III**  
Institute for Public  
Policy



# Iran 1979 - Bahrain 2012



**Unpredictable forces at work that might take years, if not decades,  
to resolve**

# Oil Workers on Strike



**?Guess the time and place?**



# Oil Workers on Strike



**?Guess the time and place?**

# Protesters In the Streets



**?Guess the time and place?**

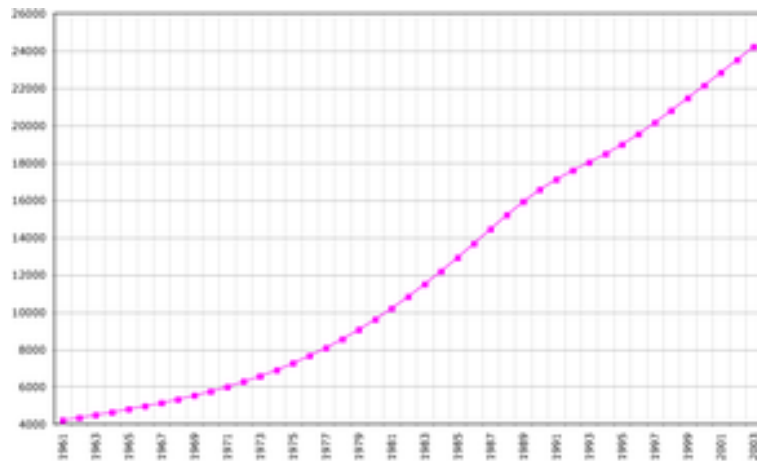
# Political Contagion Effect Now a Major Component to Long Term Outlook For Mideast Oil

**Post-Egypt, oil market faces new concerns related to the nature of domestic societies, economies, political leadership and “legitimacy” in key oil producing countries**

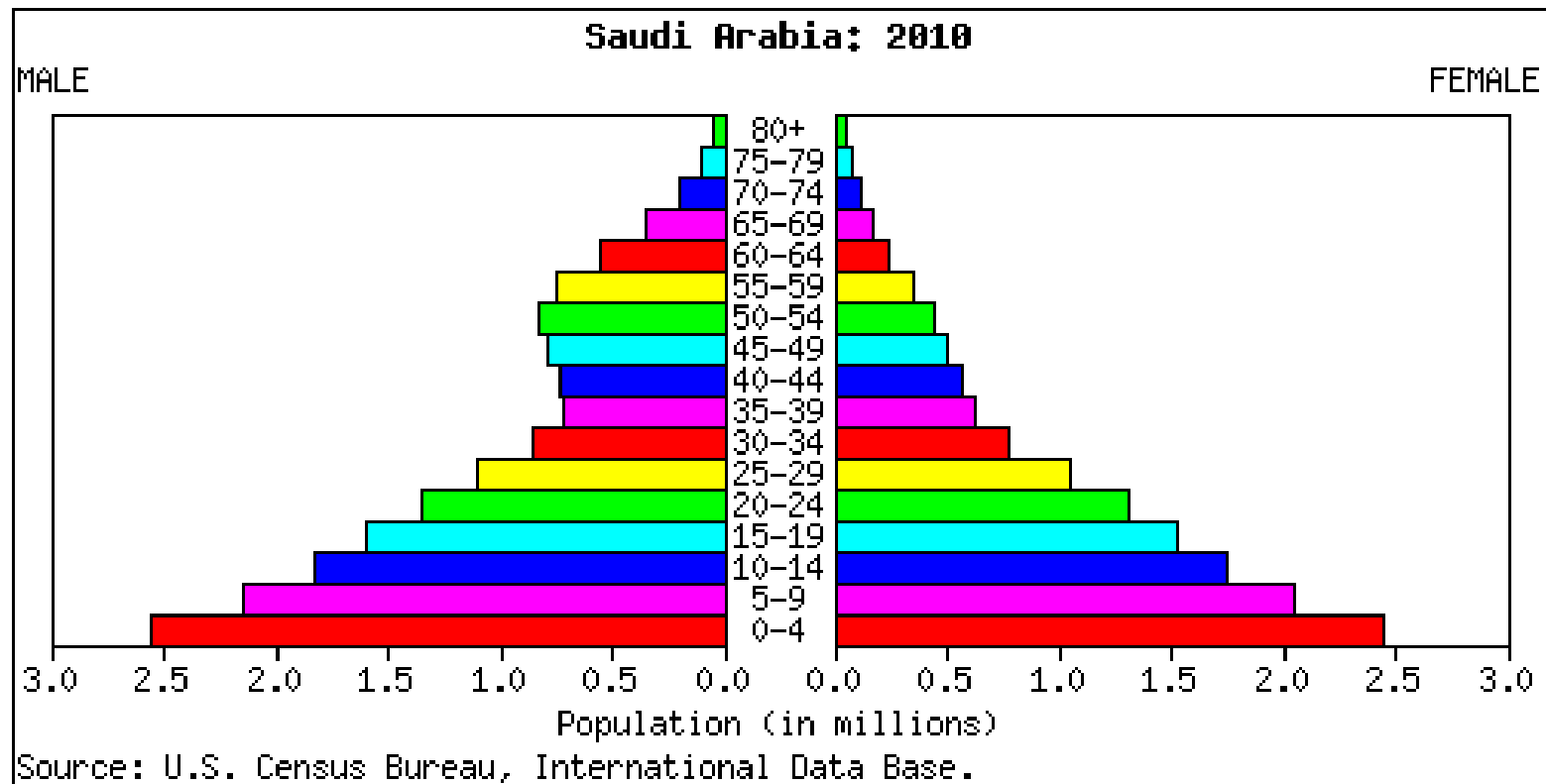
- Contagion:
  - Many oil producing countries have experienced similar kinds of demonstrations and social unrest both recently and in the recent past
  - Saudi Arabia’s leading rulers are old and in failing health
  - Oil field worker strikes in Oman, protests over wages and pensions
  - Demonstrations even in democratic Kuwait

**Over 21 million b/d of Middle East liquids production is at risk**

- Algeria: Median age 27.1 years, 10% unemployment, 2.1-m b/d
- Libya: Median age 24.2 years, 30% unemployment, 1.5-m b/d
- Syria: Median age 21.5 years, 8% unemployment, 0.4-m b/d
- Yemen: Median age 17.9 years, 35% unemployment, 0.4-m b/d
- KSA: Median age 24.9 years, 11% unemployment, 9.5-m b/d
- Iran: Median Age 26.3 years, 15% unemployment, 4.5-m b/d
- Iraq: Median Age 20.6 years, 15% unemployment, 2.8-m b/d



Saudi Population has grown from 7 million to 25 million plus since the 1970s





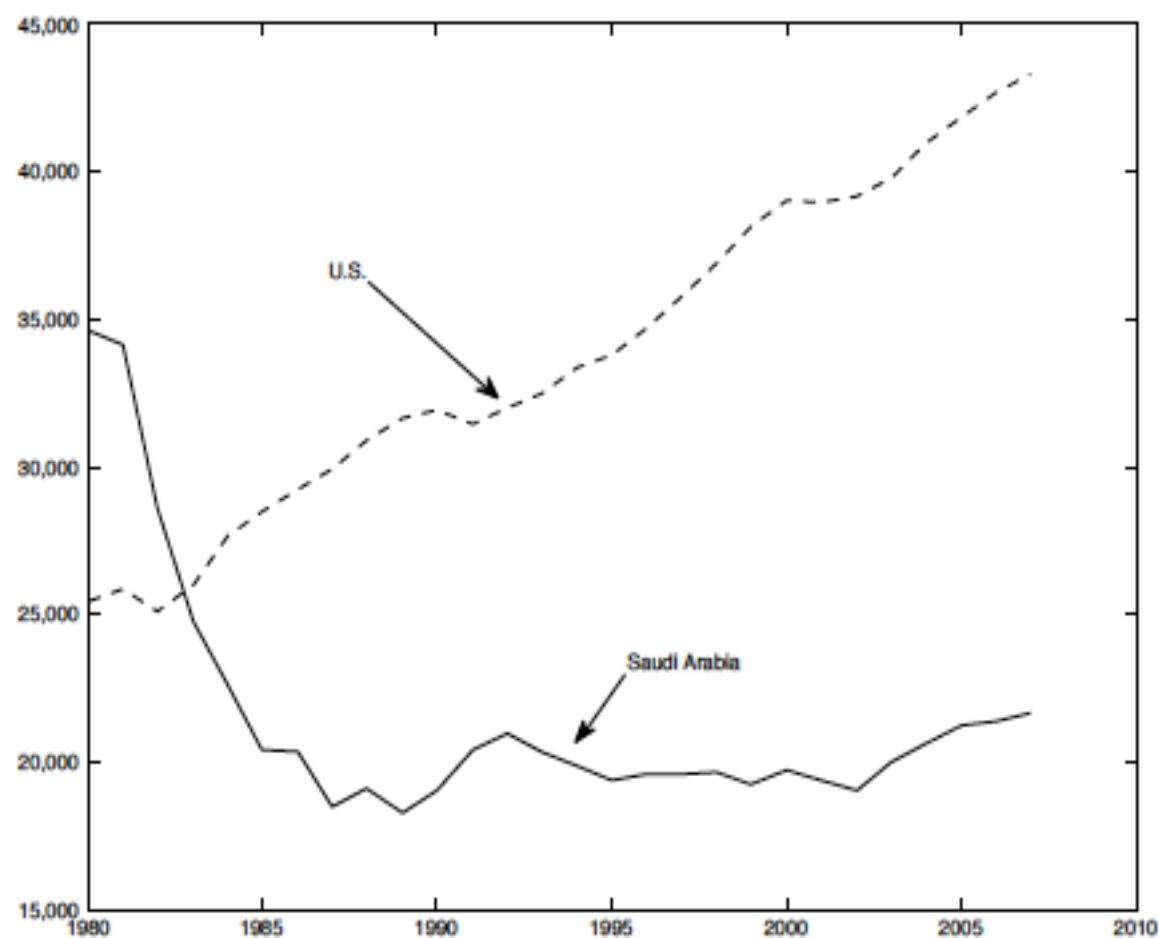
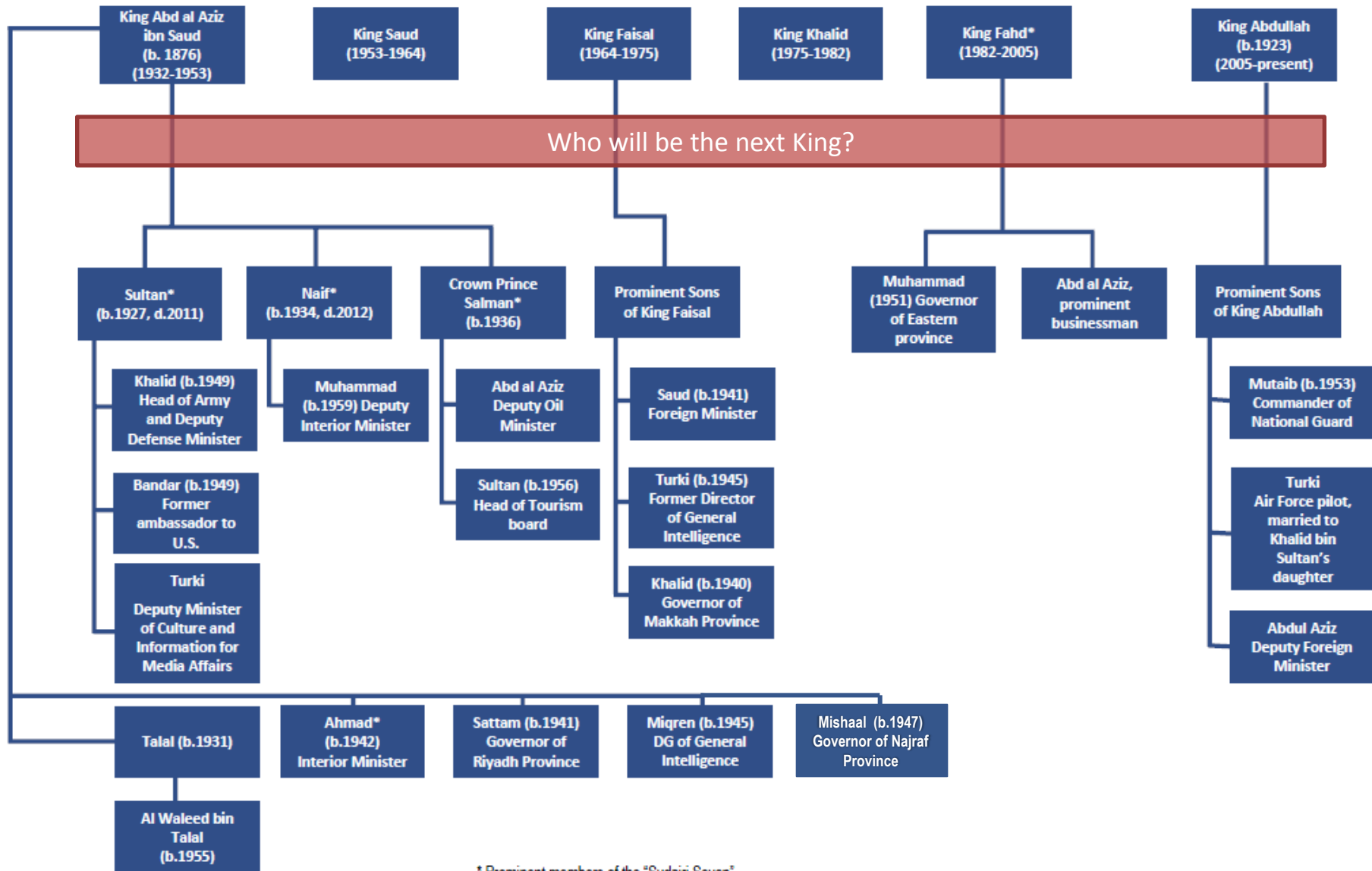


Figure 2.1. Real per capita GDP (PPP constant 2005 international Dollars) for Saudi Arabia and the United States. *Source:* World Bank, World Development Indicators.



# Saudi Succession Long Term Challenge



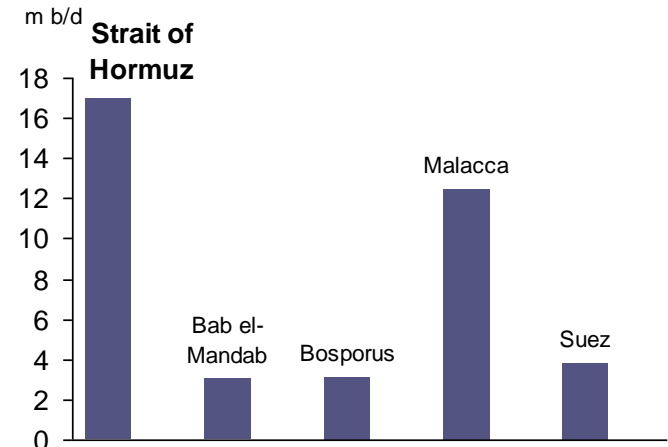
\* Prominent members of the "Sudairi Seven".

Source: Rice Baker Institute, Citi Research

- Iran Conflict Driving Oil Price Premium
- Forced shut-in of Iranian production
- Concerns about Iranian reactions. Tit for tat assassinations. Cyber attacks on NOCs. Cyber attacks on control systems or electricity? Missiles? Threat to close Strait of Hormuz? Terrorism?
- Saudis arrest controversial Shi'a cleric Nimr al-Nimr, considered the spiritual leader of the Awwamiya protest movement in the Eastern province. Protests continuing.

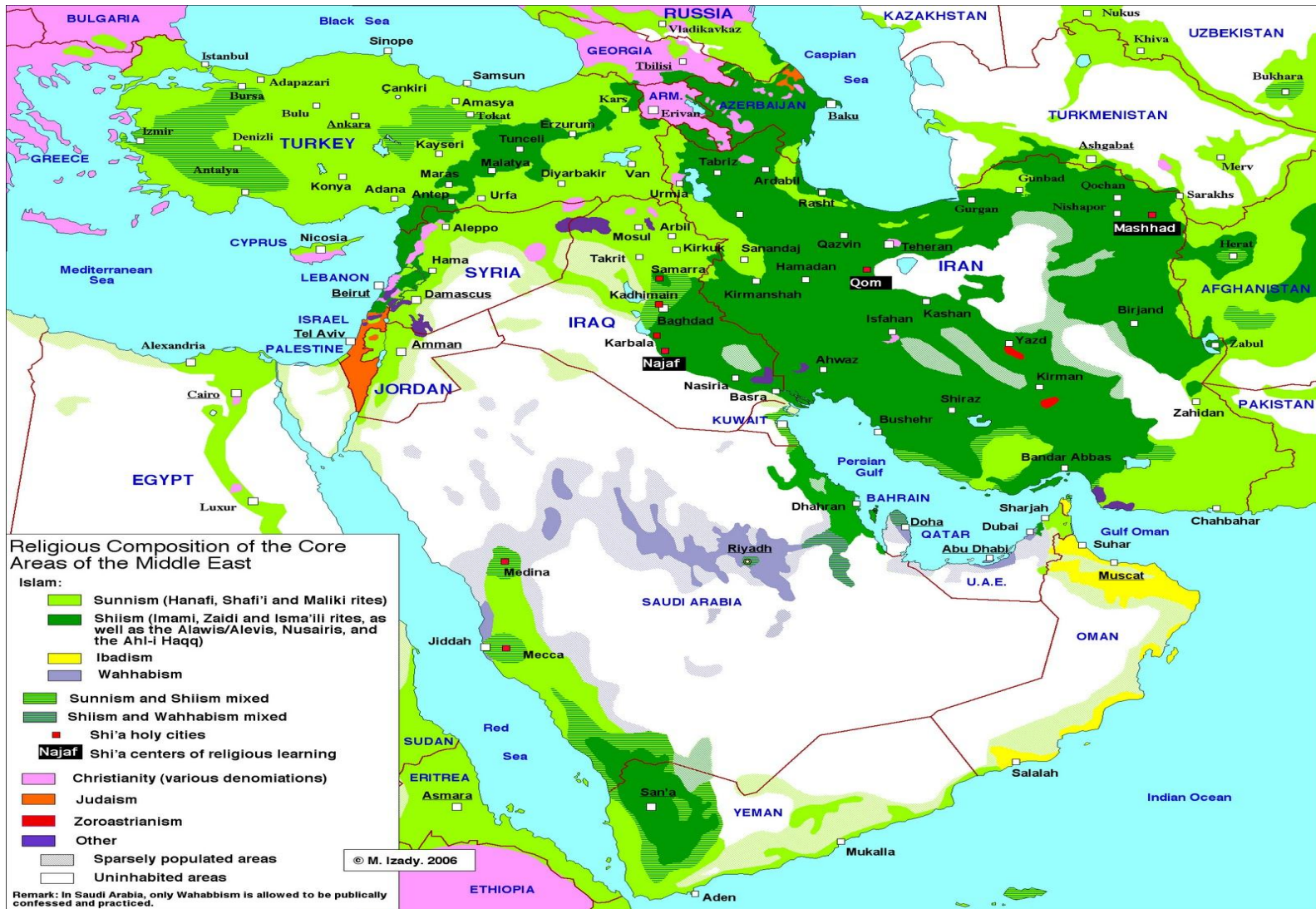


Strait of Hormuz is a key chokepoint

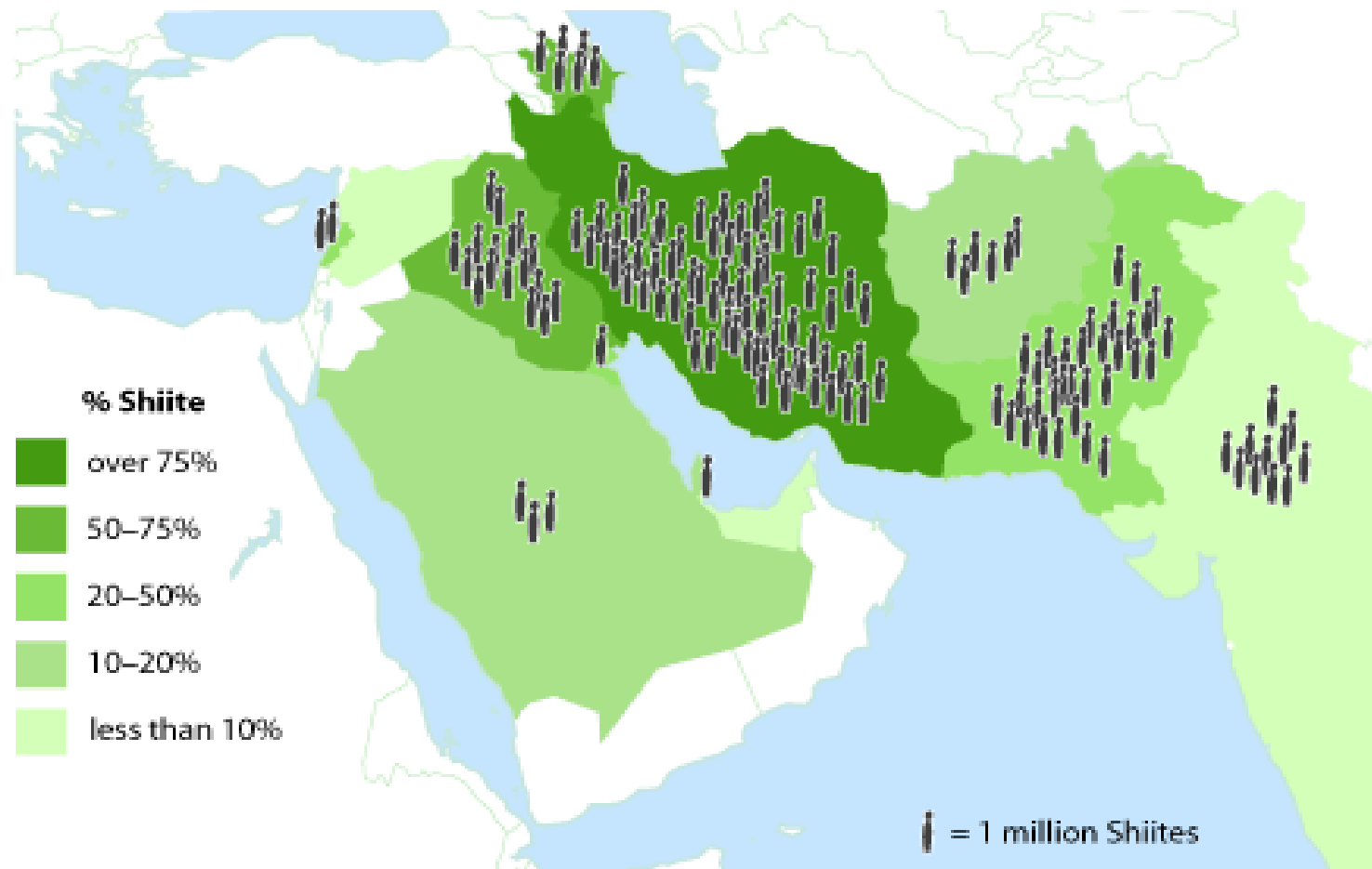


Source: EIA

# Religious Composition of the Persian Gulf Region



# Distribution of Shia Populations in Persian Gulf





# **GCC Politics: Saudi Arabia Proposes a Wider Ranging Federation with a Secretariat in Riyadh, December 2011**

- Saudi Arabia also proposed a merger with Bahrain.
- Iranian Parliament speaker Ali Larjani quoted in May 2012 “If Bahrain is supposed to integrated into another country, it must be Iran and not Saudi Arabia.”
- GCC creates aid fund for Bahrain and Oman to upgrade housing and infrastructure

# Unconventionals Defy Peak Oil Concept

- Center of the Energy World Shifting Back to the Americas
- Unconventionals Will Bring Fundamental Changes to Global Energy Landscape, Including Long Term Price Outlook
- Unconventional Trends Accelerating and Could Gain Even More Momentum From Alternative Fuels Programs if Mideast Crisis Escalates

# Over Ten US Shale Plays Have High Liquids Potential

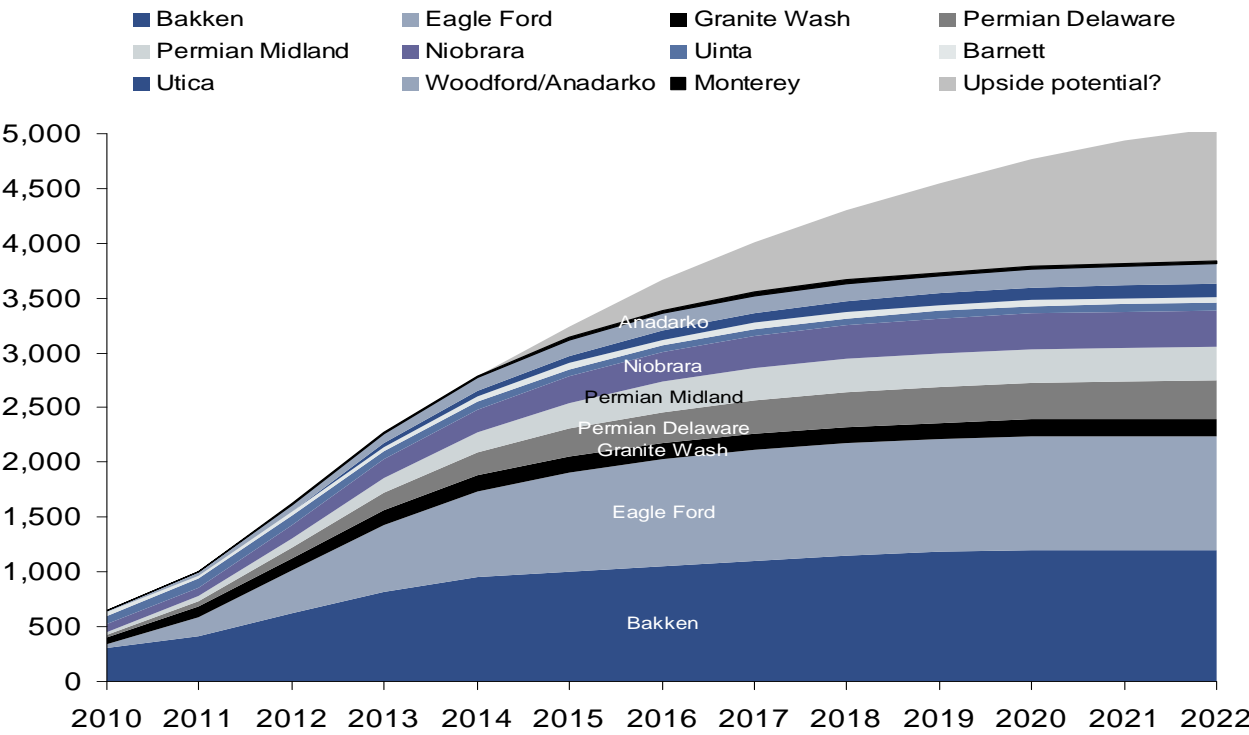
- Total technically recoverable resource endowment may exceed 60 billion barrels
- US shale oil potential is widely distributed geographically:
  - North Dakota (Bakken); Texas-New Mexico (Permian Basin, Avalon, Bone Springs, Wolfcamp, Eagleford); Ohio (Utica); Pennsylvania (Marcellus); Colorado-Wyoming (Niobrara); Florida (Sunniland); Louisiana (Tuscaloosa); Oklahoma (Mississippi Lime); California (Monterrey Basin)
- Technical and cost challenges rapidly being overcome through experience; over 1.6 million b/d in total this year



# US 2020: Shale and tight oil

The shale revolution which has driven massive gains in natural gas production is now doing the same for oil, with potential shale liquids production growth of +3.8-m b/d by 2020

## US shale liquids projections could see +3.8-m b/d of growth by 2020





# U.S. Crude Oil Imports from OPEC members

- Sweet crude from US shale plays is backing out significant crude imports from OPEC members, a decline (on average) of 1.5 million b/d from 2007 to the first quarter of 2012
  - With the reversal of Seaway pipeline from the Gulf Coast to Cushing, Oklahoma more light crude from the Bakken will be coming to Gulf Coast, backing out even more international crude imports.
  - The demand in the East Coast might also drop sharply as refiners look to bring in more shale oil via railcar from the U.S. Midcontinent
  - Less West African crude oil heading to U.S.: In the first quarter of 2012, the U.S. imported an average 634,000 b/d from Nigeria and Angola, down from 1.6 million b/d in 2007

