

# The Age-structural Theory of State Behavior

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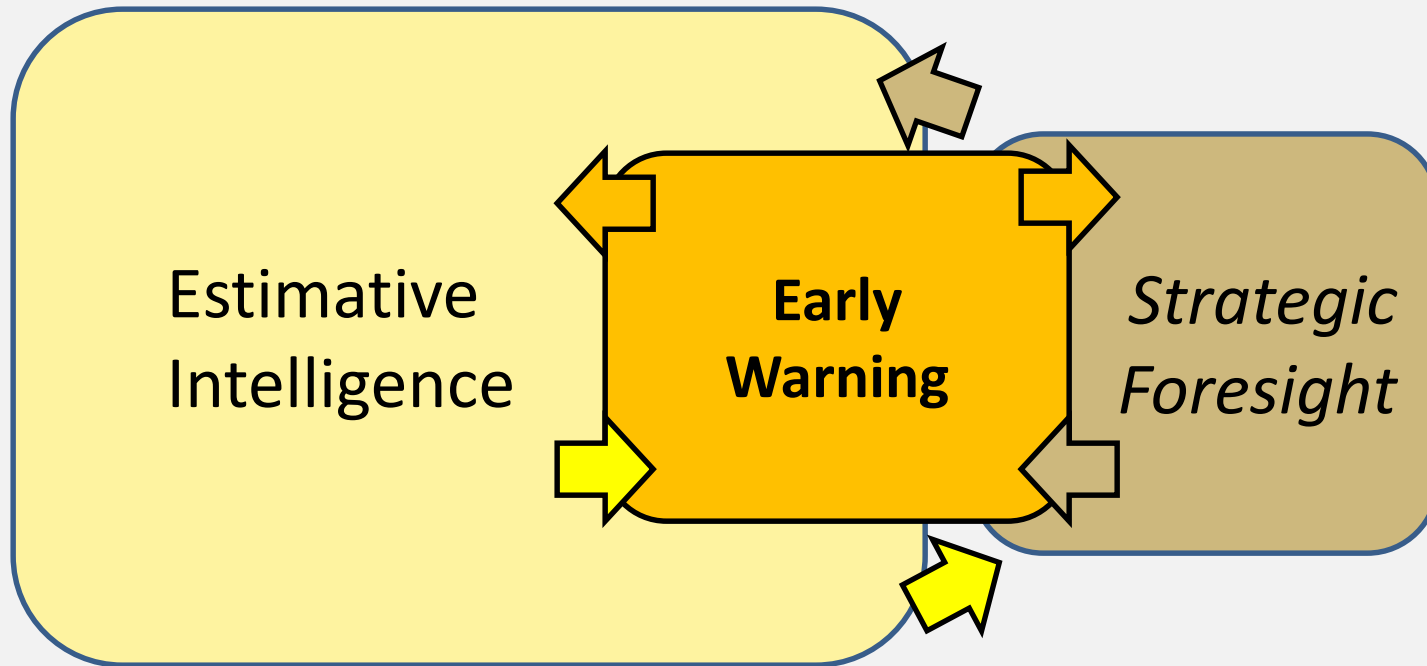
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**Florida International U./Class/Shlomi Dinar**  
**March 9, 2019**

# The Anticipatory Fields of Intelligence

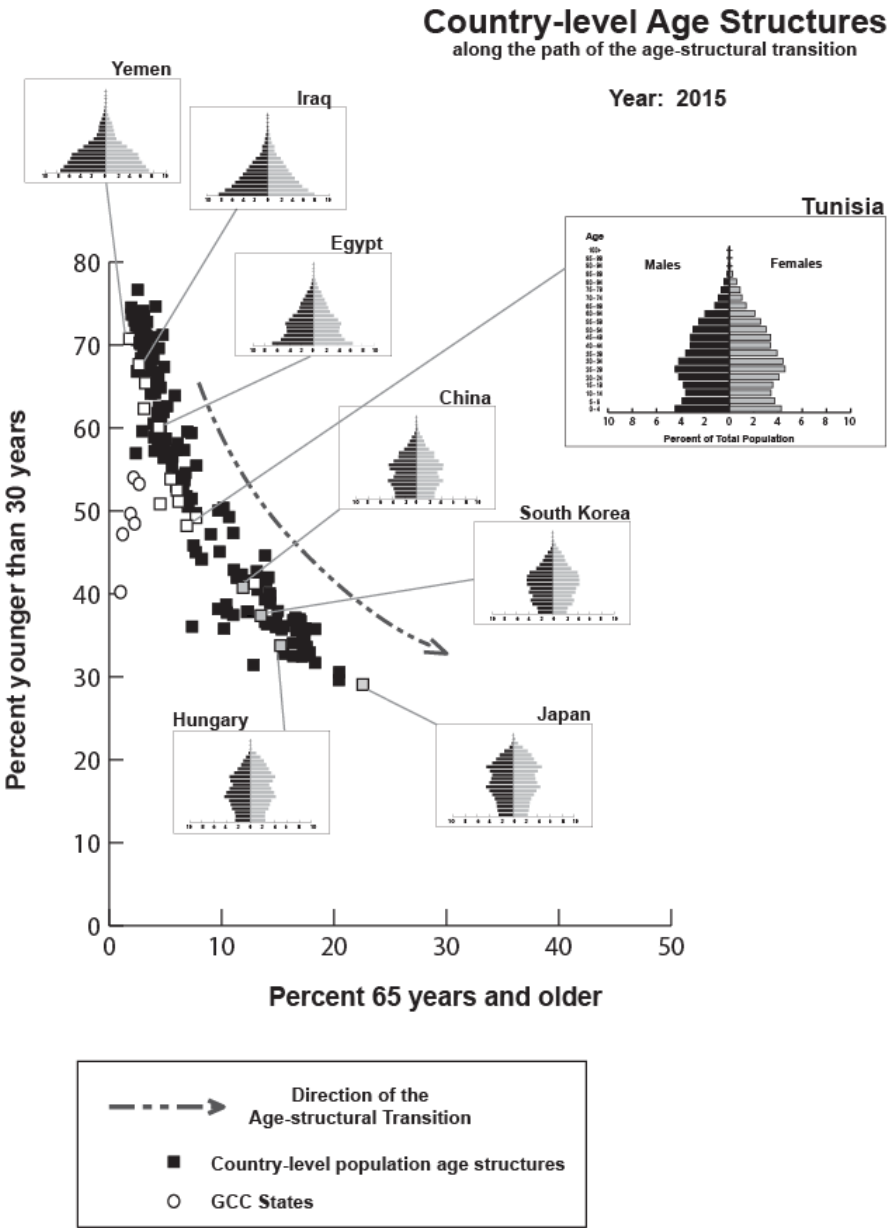
*(Estimative, Early Warning, Foresight)*



# The Age-structural Transition

## 2015

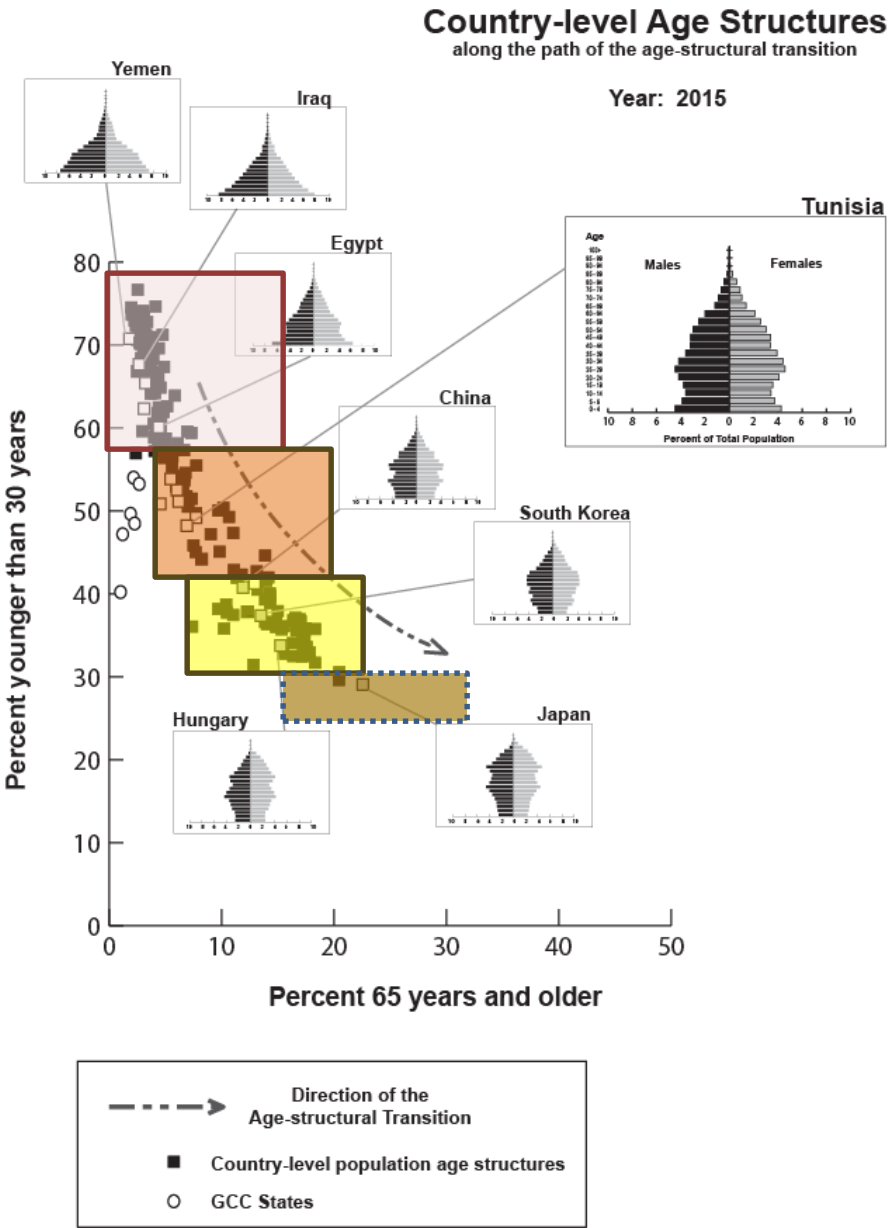
Data: UN Population Division, 2015 Rev.



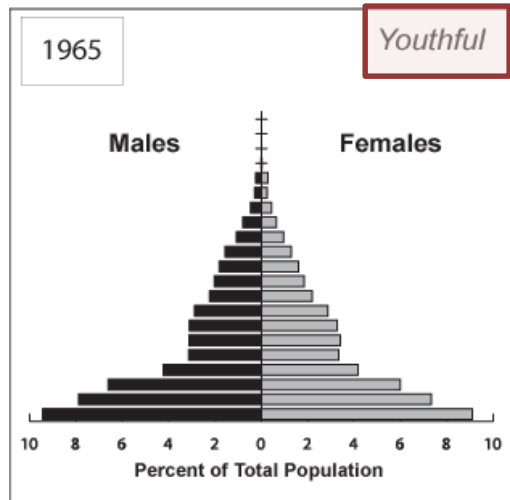
# The Age-structural Transition

## 2015

Data: UN Population Division, 2017 Rev.

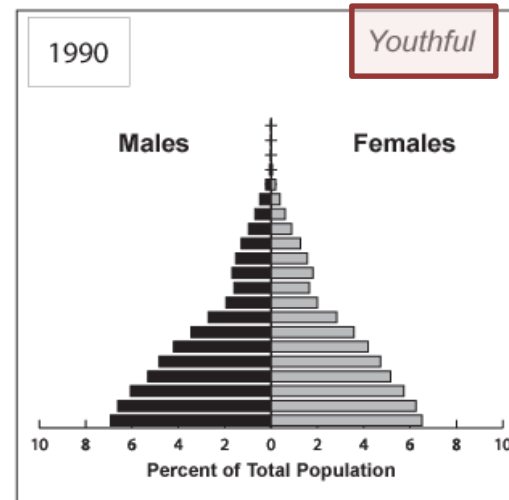


# Tunisia



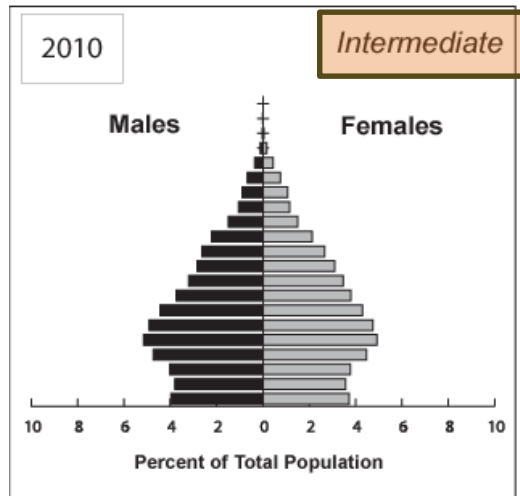
Median age, 17.1

Pop: 4.5 million



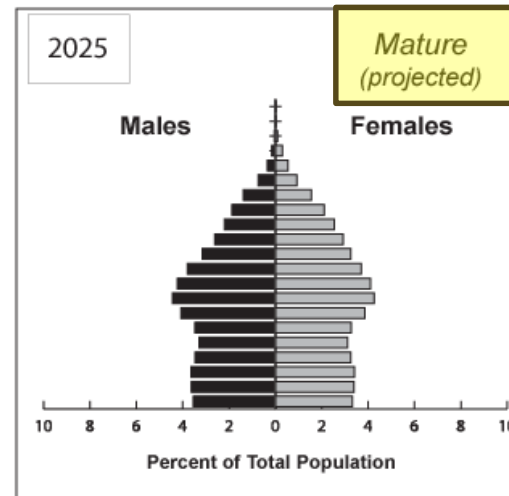
Median age, 20.9

Pop.: 8.2 million



Median age, 29.0

Pop.: 10.6 million



Median age, 35.6

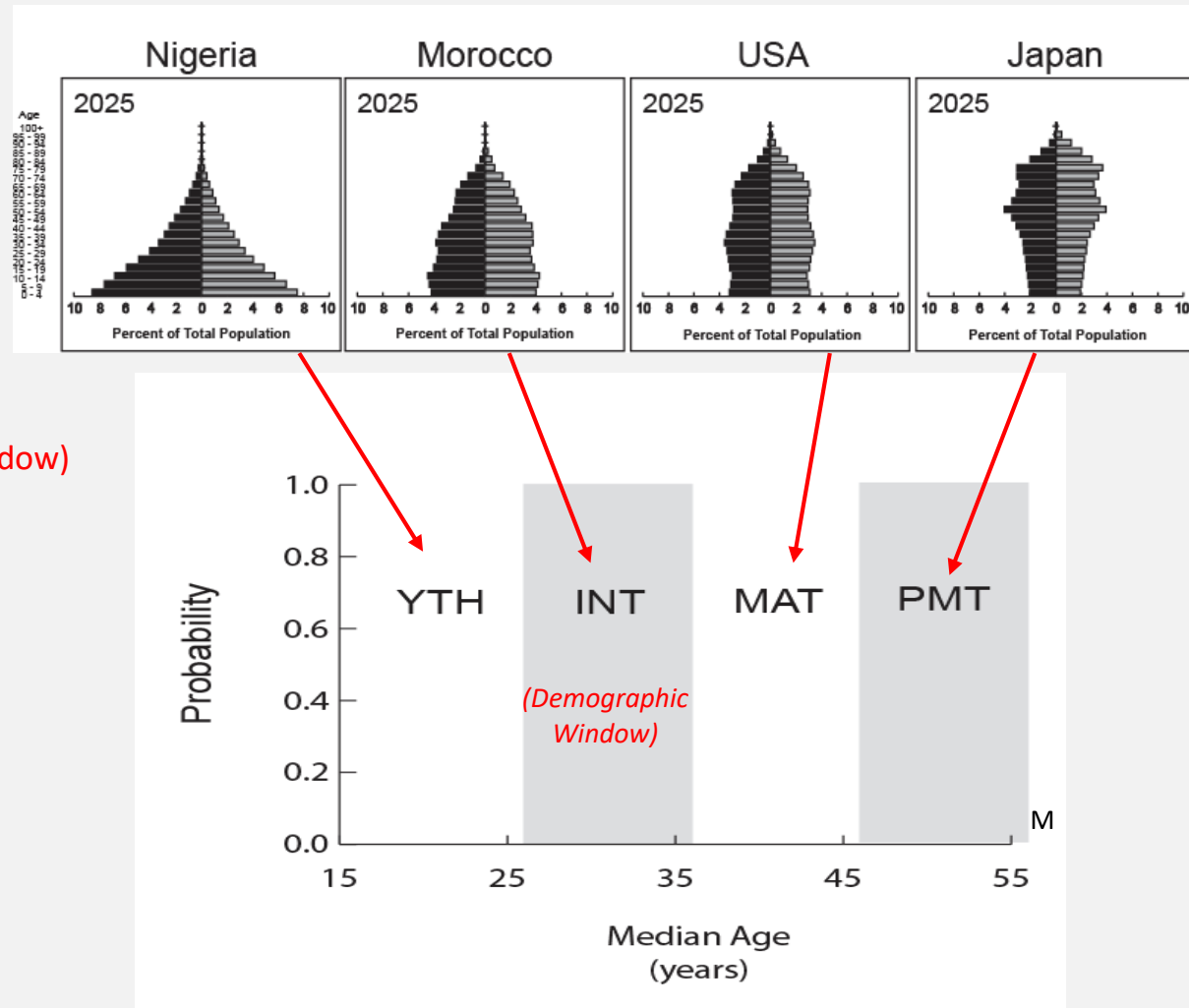
Pop.: 12.3 million

## 4 Phases of the Age-structural Transition

Median age (in years)

- Youthful  $\leq 25.5$
- Intermediate 25.6 to 35.5 (Dem. Window)
- Mature 35.6 to 45.5
- Post-mature  $\geq 45.6$

Age-structural Timeline



Age-structural Transition

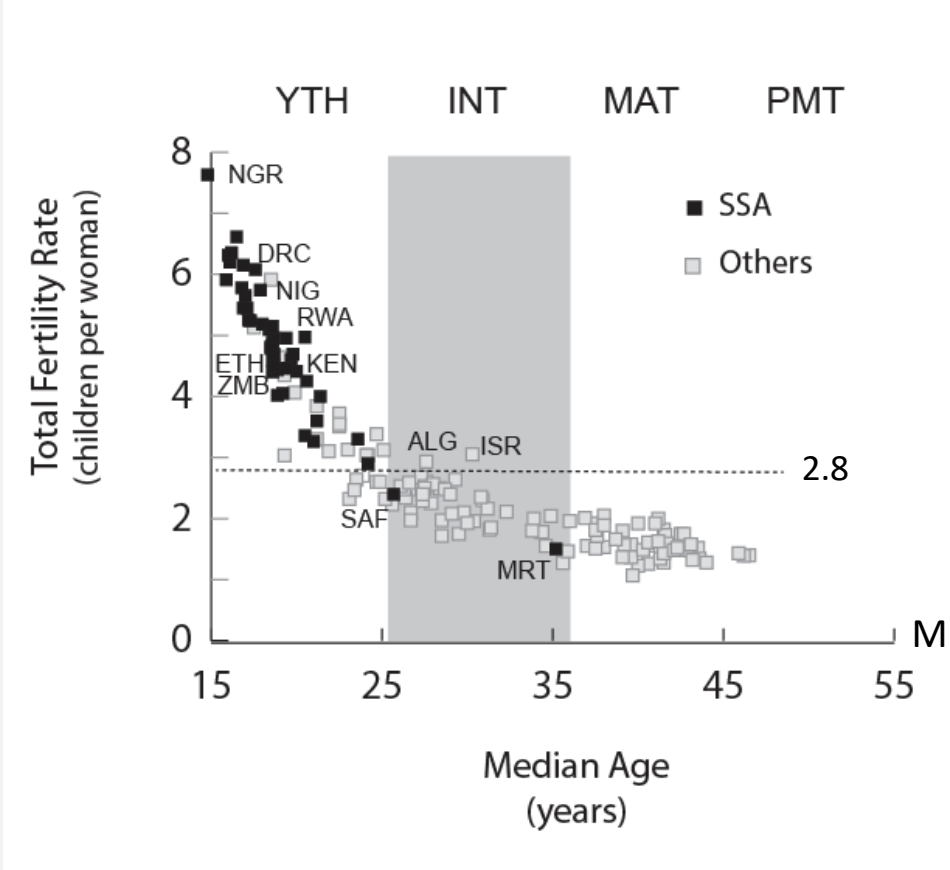



## NIC's Four Age-structural Phases

- **Youthful (YTH):** rapid growth among children, adolescents, young adults; low levels of human capital and institutional capacity (typically low legitimacy). Difficult to generate legitimacy from institutions (because of the large load on them, and low levels of human capital)
- **Intermediate (INT):** The demographic window; low levels of dependency; rapidly increasing human capital and institutional capacity (typically gains in legitimacy).
- **Mature (MAT):** fading of the demographic advantages; society and economy directed by the institution and capacity generated during the window. Need to be preparing institutions/society for the next phase.
- **Post-mature (PMT):** challenges from large proportion of seniors in adult population; declining workforce size (maybe); unprepared institutions (?); ethnic shifts due to immigration (?).

Sub-Saharan Africa and the Demographic Window

TFR, 2010-15 vs. Median Age, 2015

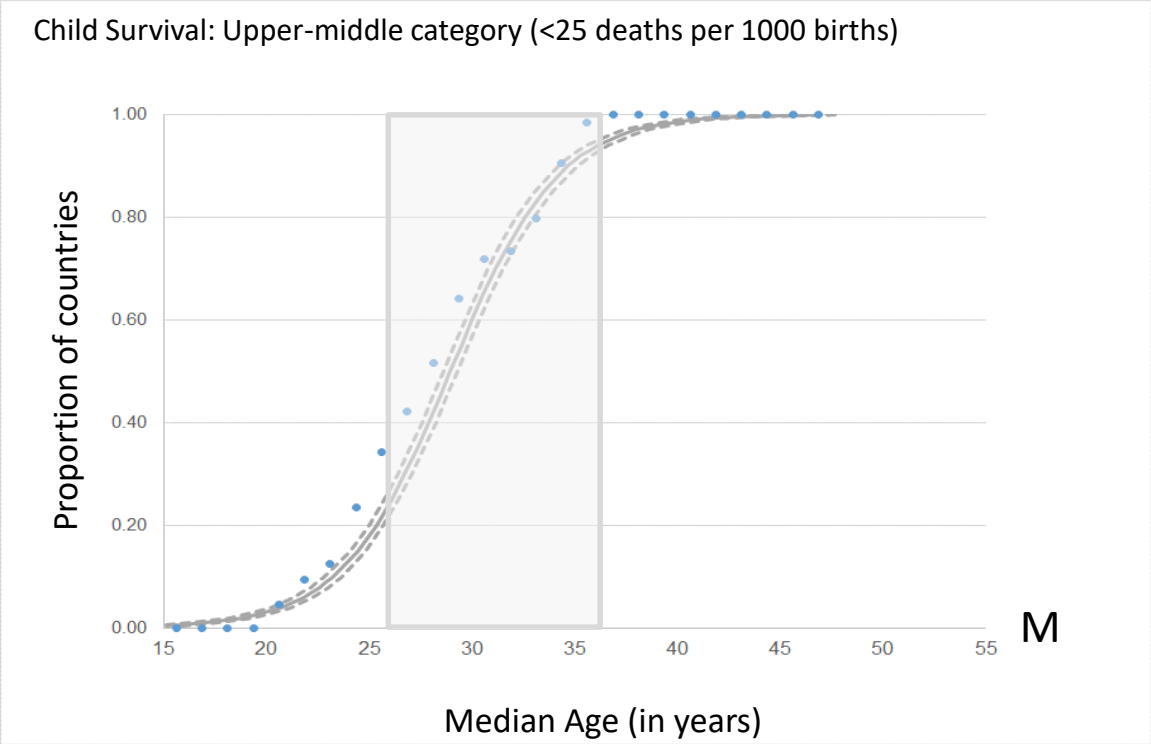


Age-structural Transition 



# Building Cumulative Distribution Functions

YTH                      INT                      MAT                      PMT



Age-structural Transition

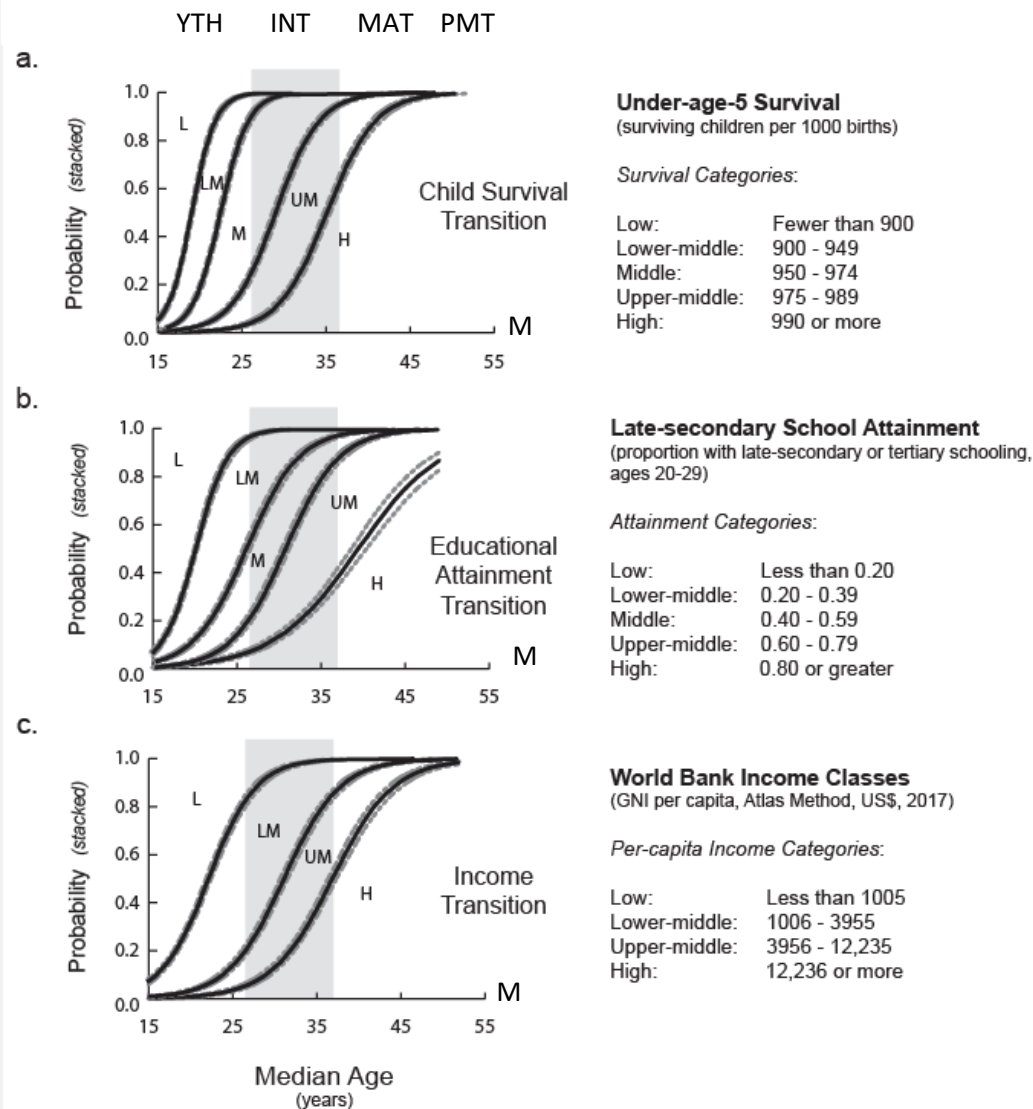
# Age Structure & Development

## Transitions in:

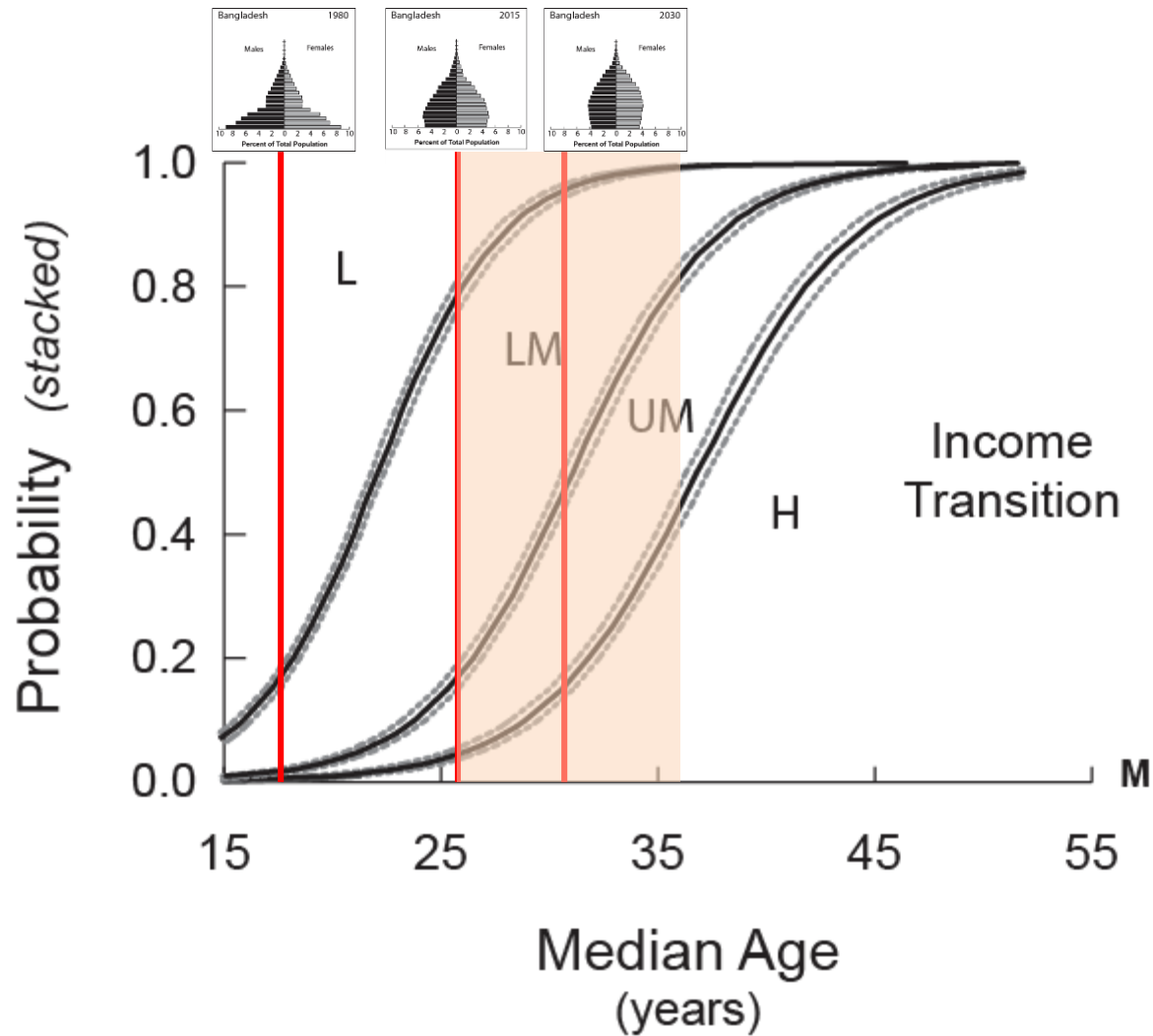
Child survival (UN Pop. Div./WHO)

Late-secondary educational attainment (IIASA/VID)

Per-capita income (World Bank, WDI)

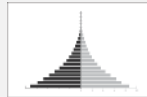


1980      2015      2030



# World Bank Income Classes

YTH



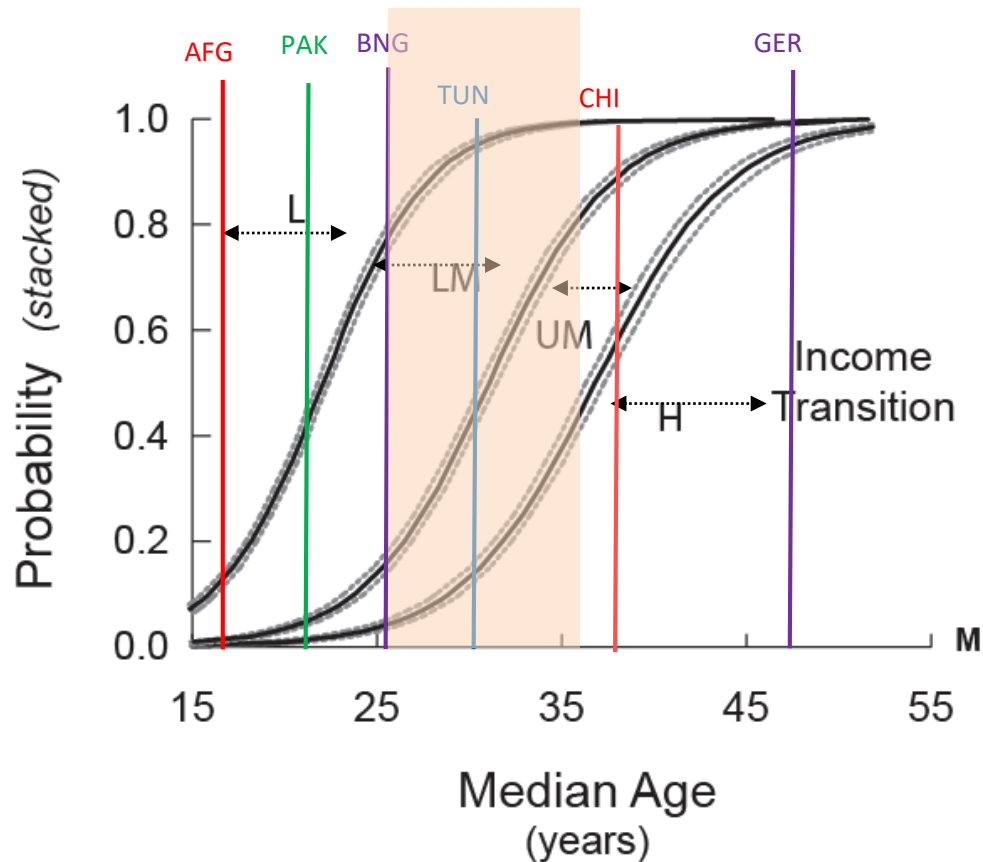
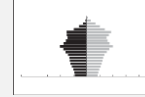
INT



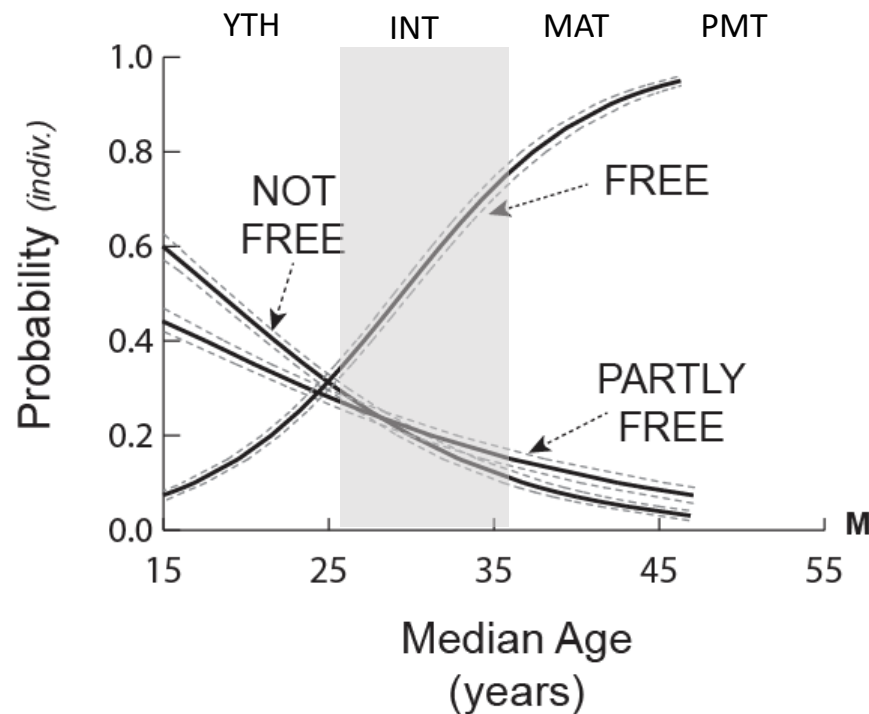
MAT



PMT



## Political Liberalization Transition

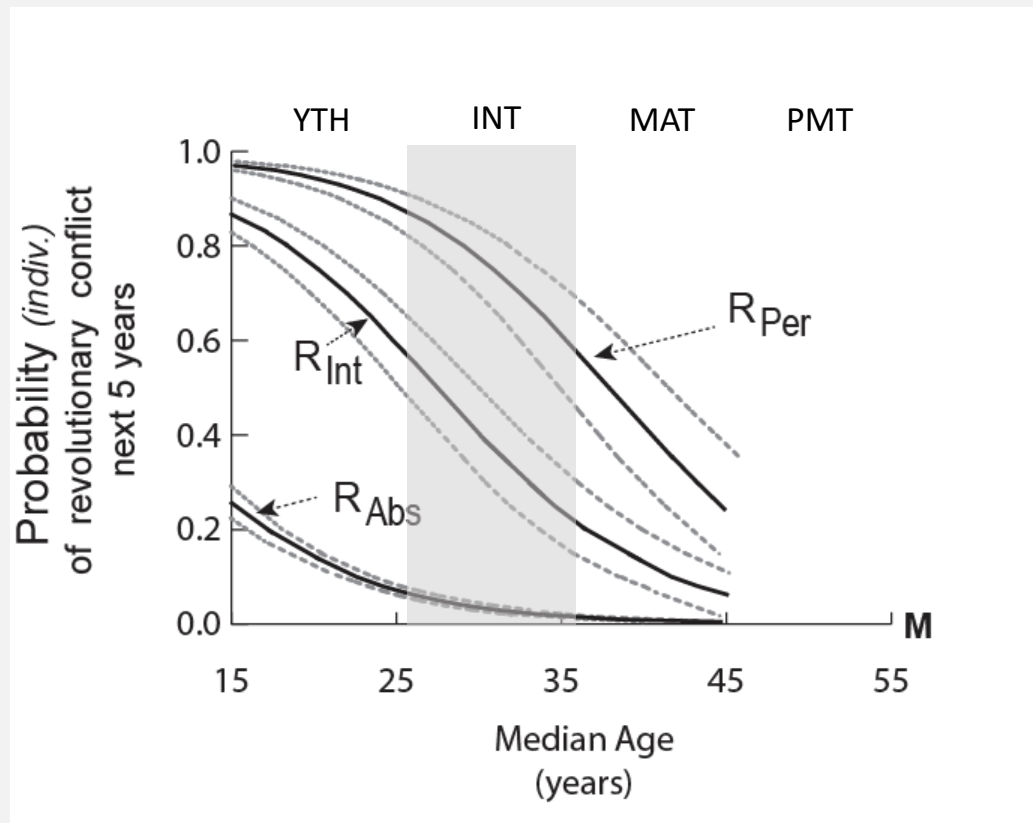


Freedom House freedom status categories, published annually by Freedom House, based on the average of their political rights (PR) and civil liberties (CL) scores (average is called the freedom score).

FREE: Freedom Scores 2.5 to 1.0  
PARTLY FREE: Freedom Scores 5.0 to 3.0  
NOT FREE: Freedom Scores 7.0 to 5.5

Data: Freedom House (2018), UNPD (2017)

## Political Stability Transition



UCDP/PRIO Armed Conflict Database,  
intra-state, government-focused conflicts  
(>25 battle-related deaths per year, where  
the state is one of the armed parties)

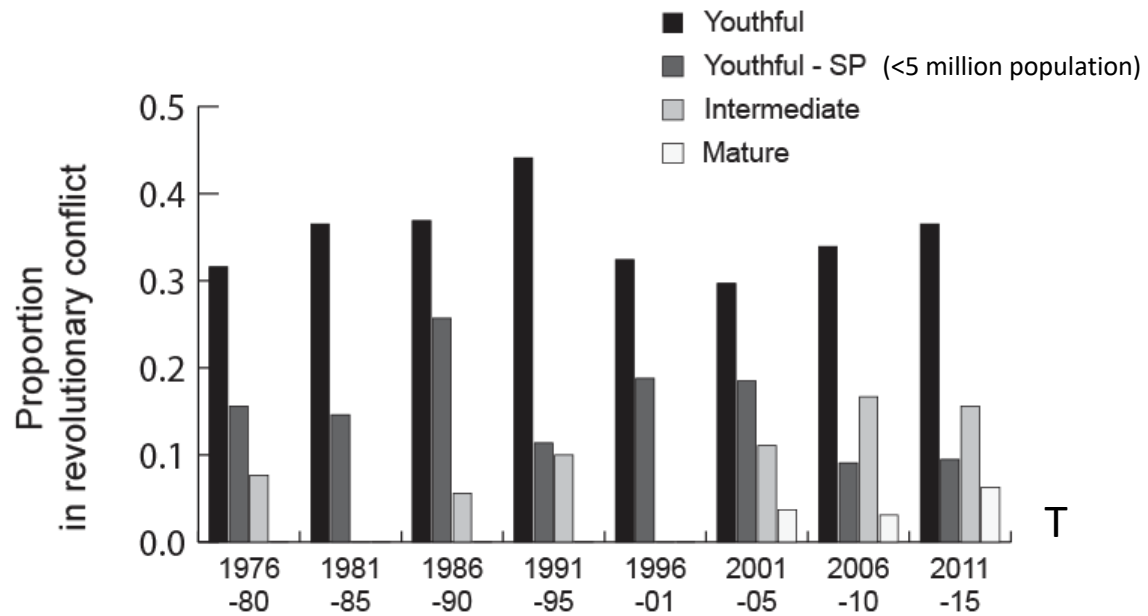
Note: Not a separatist (territorial) conflict.

Conflict History Classes (same type of conflict  
during prior 4-year)

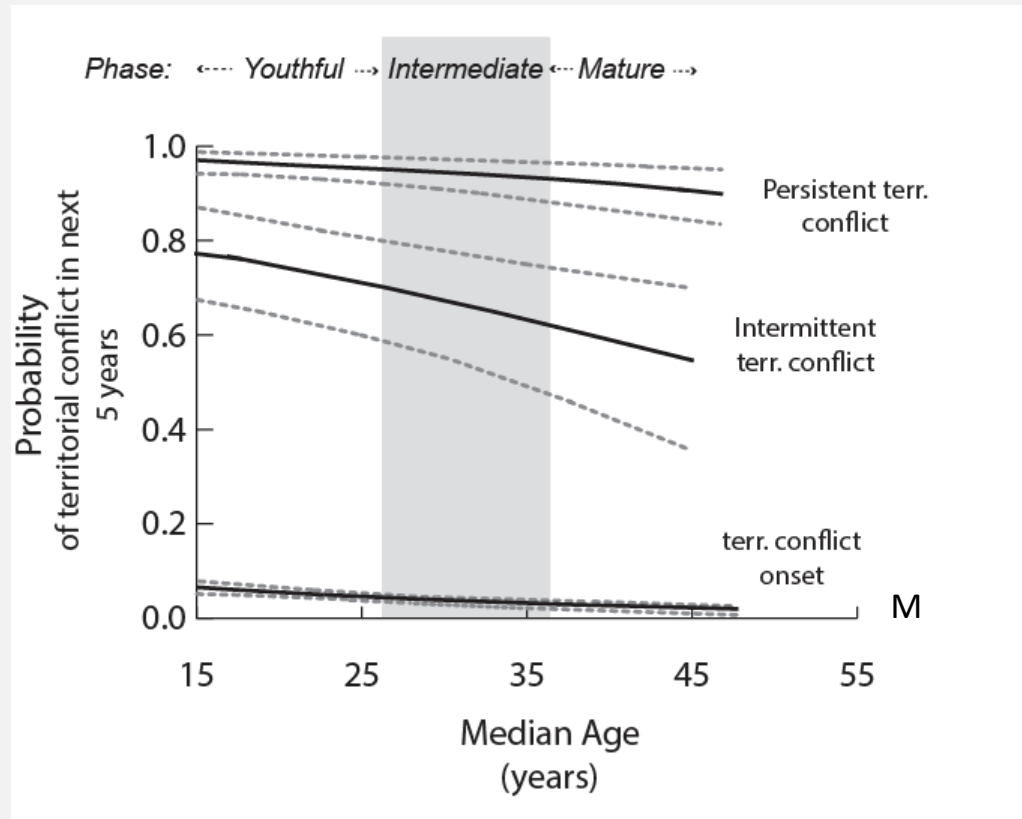
$R_{Abs}$ :	0 years of conflict (absence)
$R_{Int}$ :	1 or 2 years of conflict (intermittence)
$R_{Per}$ :	3 or 4 years of conflict (persistence)

Data: UCDP/PRIO (2017), UNPD (2017)

## Revolutionary Conflict: empirical evidence



## Territorial (ethnic separatist) Conflicts: Theory



4-year conflict history types

*Onset: 0 conflict yrs.*

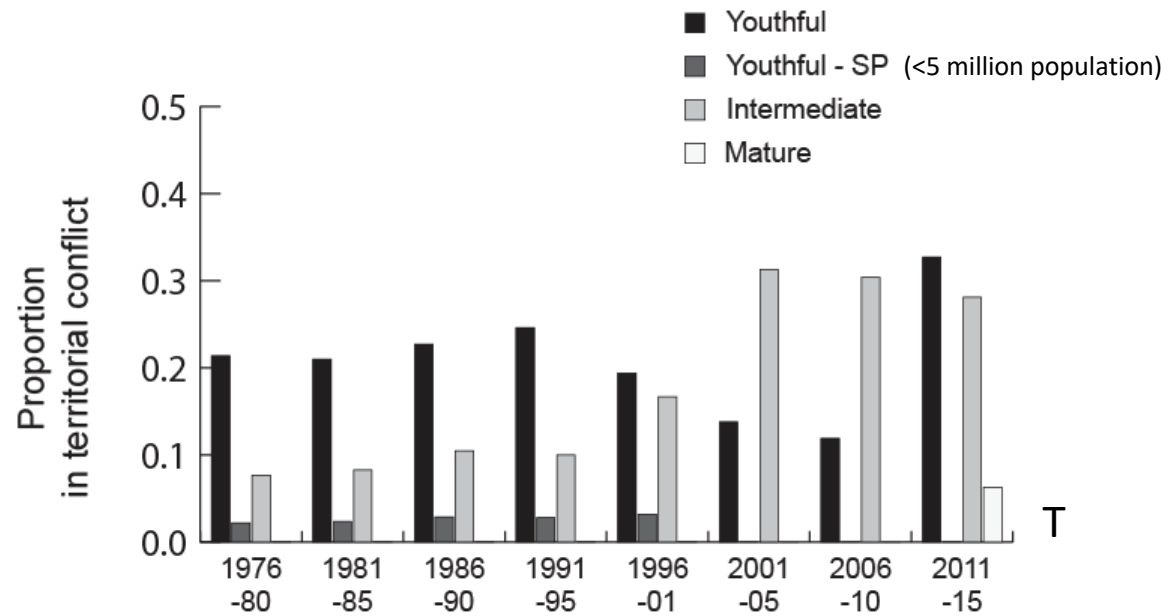
*Intermittent: 1 or 2 conflict yrs.*

*Persistent: 3 or 4 conflict yrs.*

Cincotta, in press

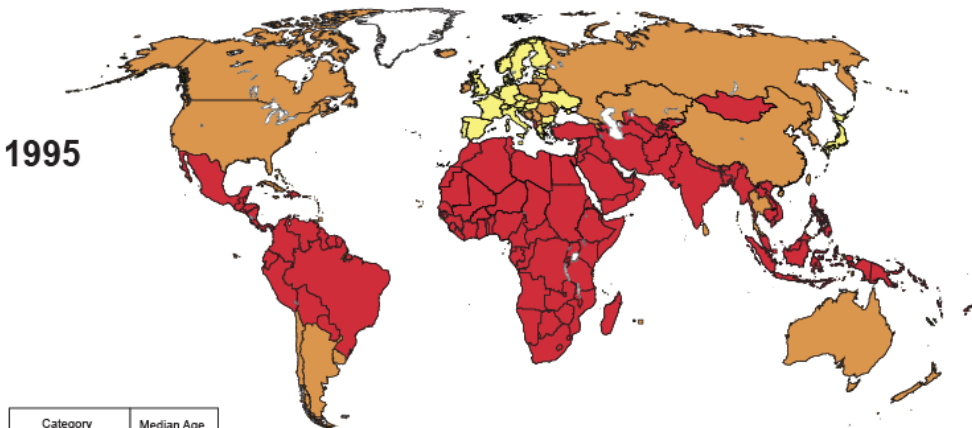


## Territorial Conflict: empirical evidence



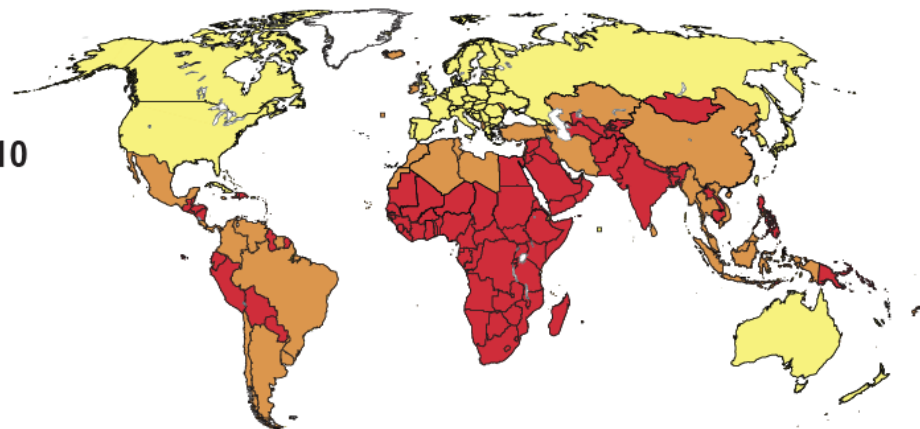
# Age-structural Change 1995 to 2010

1995



Category	Median Age
Youthful	25 or younger
Intermediate	26 to 35
Mature	36 to 45
Post-mature	46 or older

2010



## Age-structural Change 2015 to 2035

2015

Category	Median Age
Youthful	25 or younger
Intermediate	26 to 35
Mature	36 to 45
Post-mature	46 or older

2035

Data: UN Population Div., 2015

**END**

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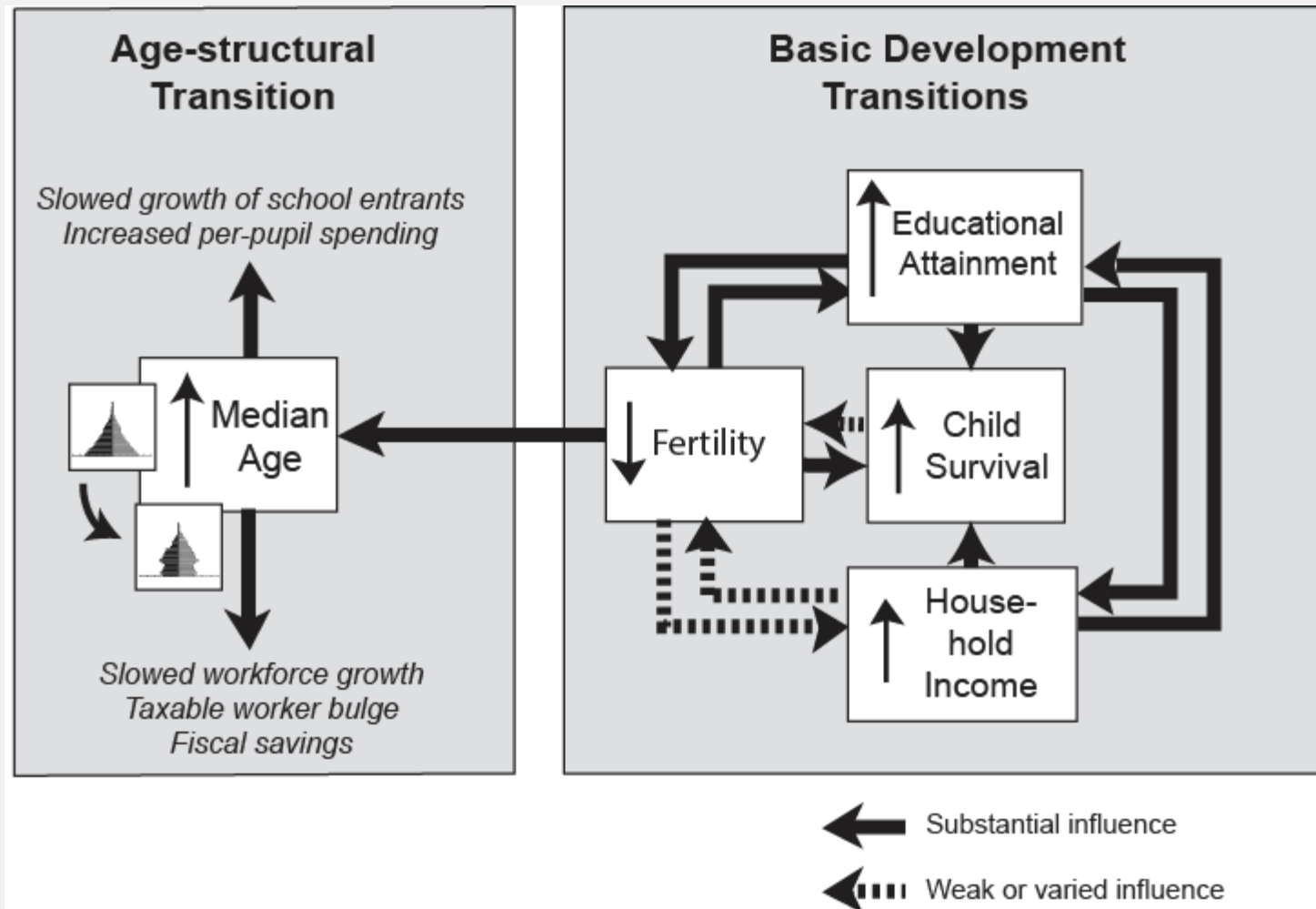
## SUMMARY: Ten Rules of Political Demography (1 through 5)

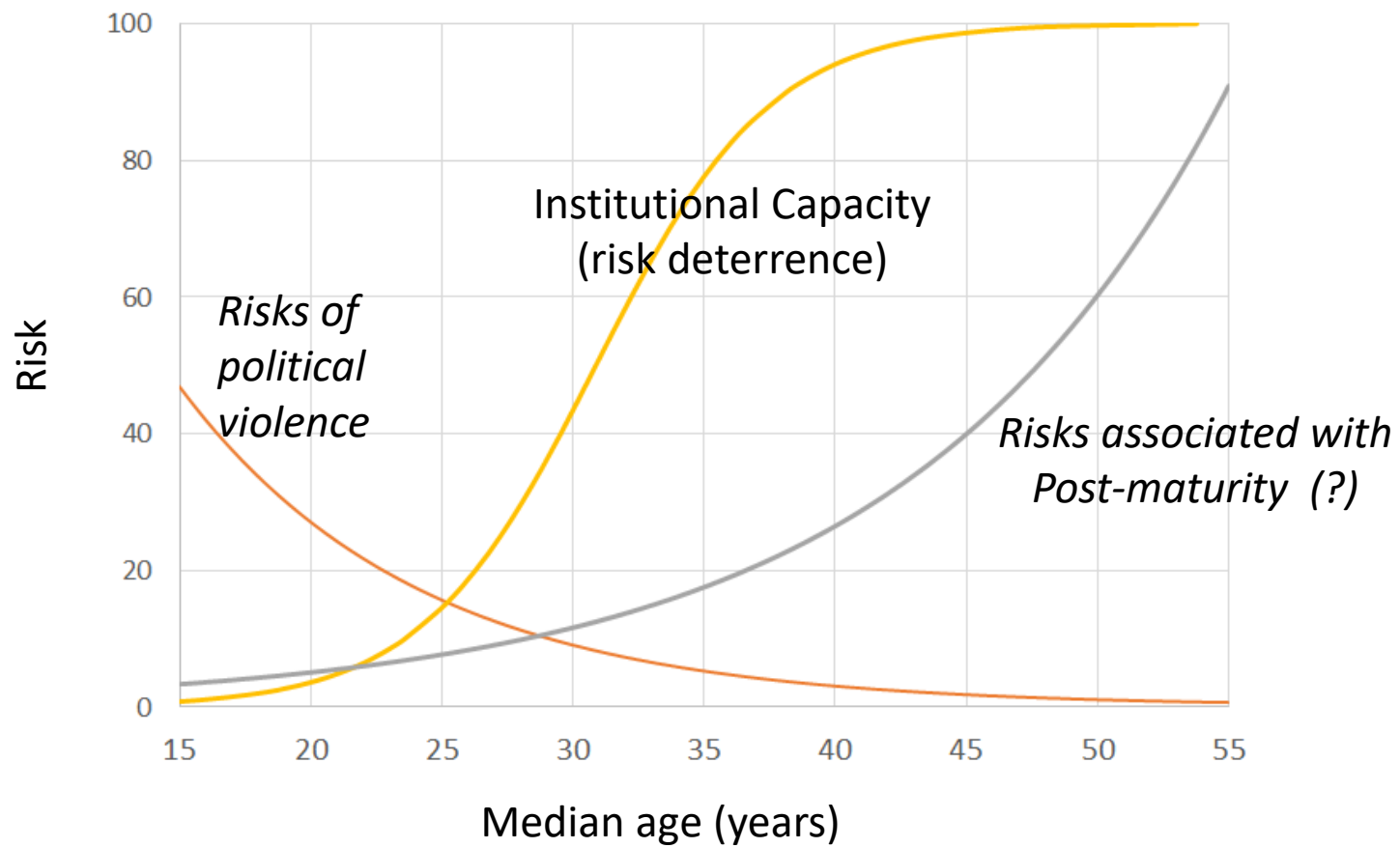
1. **Expect youthful states to reside in the lower and lower-middle development categories** of child survival, educational attainment, and income. Exceptions are states with small populations (<5 million population), and those with oil/mineral wealth (>15% GDP).
2. **Expect states in the intermediate and mature phases** (the most age-structurally mature), to experience the best chance of being a liberal democracy – that is, to be assessed as FREE in Freedom House's annual Freedom in the World global survey (most analysts consider FREE status to be synonymous with liberal democracy).
3. **Expect states that have a youthful age structure** (below a median age of 25.5 years) to be the least likely to be assessed as FREE and the most likely to be engaged in revolutionary conflict (non-separatist conflict) of either low or high intensity, as measured by the Uppsala Conflict Data Program.
4. **Where a revolution occurs in a state with a youthful population**, expect either the authoritarian regime to remain in power or to be replaced by another authoritarian regime (typically NOT FREE or low-level PARTLY FREE, as measured by Freedom House).
5. **Expect states that achieve FREE while youthful to lose this rating** within a decade. There is a long history of this effect; Mali is a recent example.

## Ten Rules of Political Demography (6 through 10)

6. **Expect states with a population of less than 5 million to be the most likely to break rules 1, 2, 3, 4, and 5** (see the UN Population Division for population data).
7. **Expect revolutionary conflicts to end or de-escalate** when countries move into the intermediate phase. However, this trend is much less pronounced among ethnic separatist conflicts, where it is often responsive to sub-state demography.
8. **Expect states that are ruled by an ideological single-party regime or another type of ideological political monopoly** – for example, Iran's theocracy – to mature without liberalization. China and North Korea are other prominent examples, and so far, have had no successional issues.
9. **Expect states led by a revolutionary leader** (Cuba under Castro, Venezuela under Chavez) or a charismatic reformer (Russia under Putin, Turkey under Erdogan, Singapore under Lee Kwan Yu) to resist attaining FREE. Expect these regimes to have successional problems.
10. **Expect a state ruled by a military junta/ruler or absolute monarch to yield to a more democratic regime before the population attains a mature age-structure** (before a median age of 35.5 years).

## Why does median age predict development?

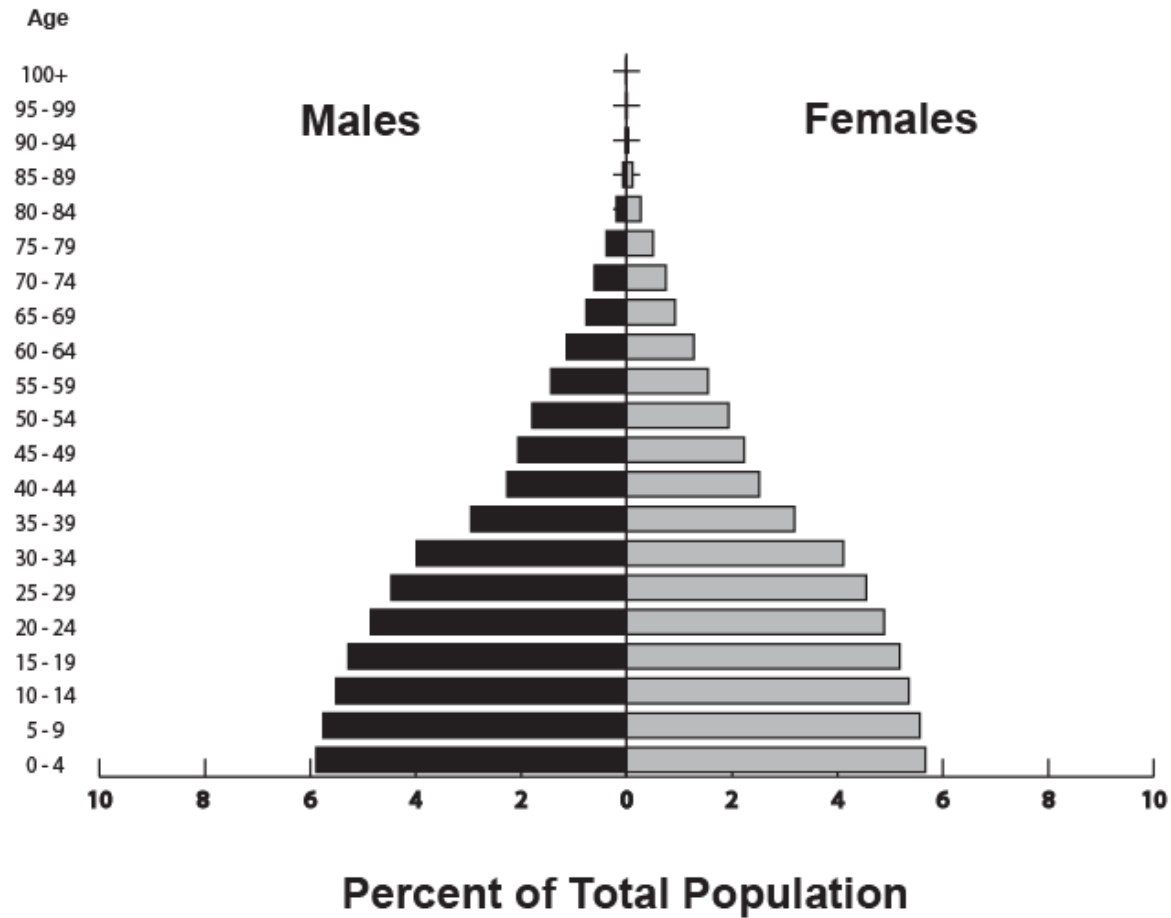






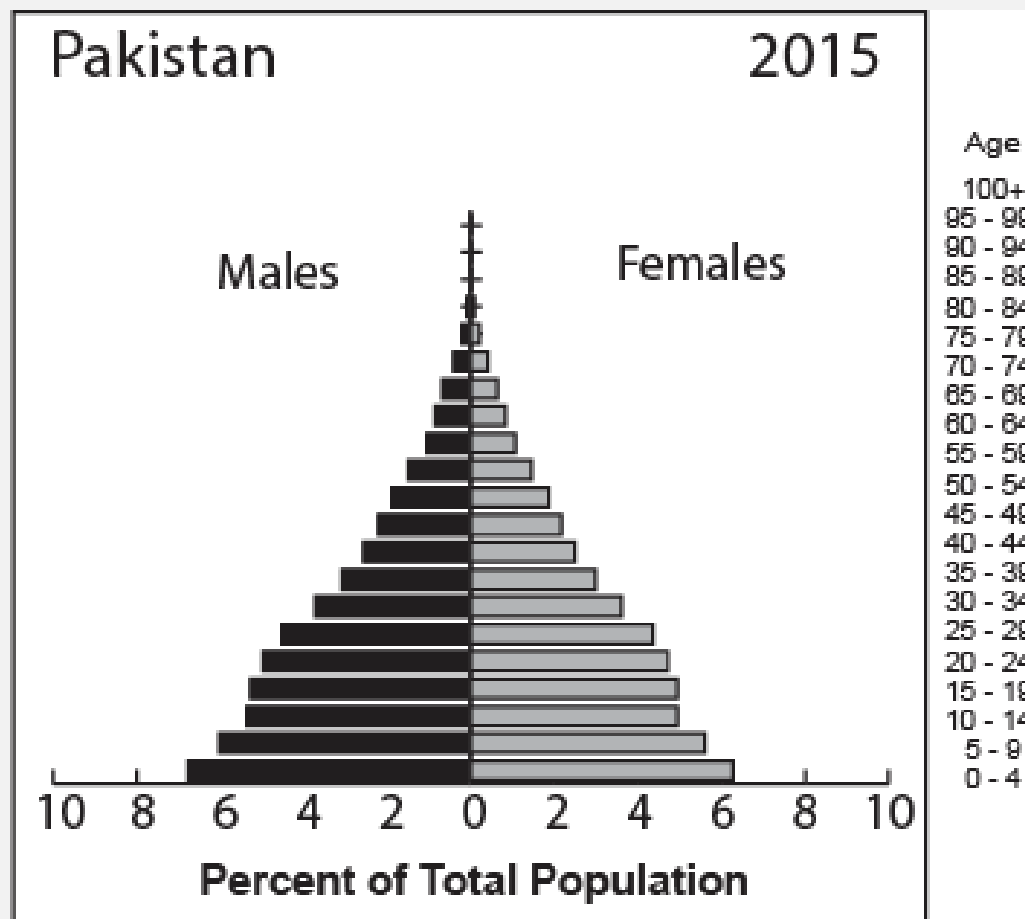
# Haiti 2015

Youthful



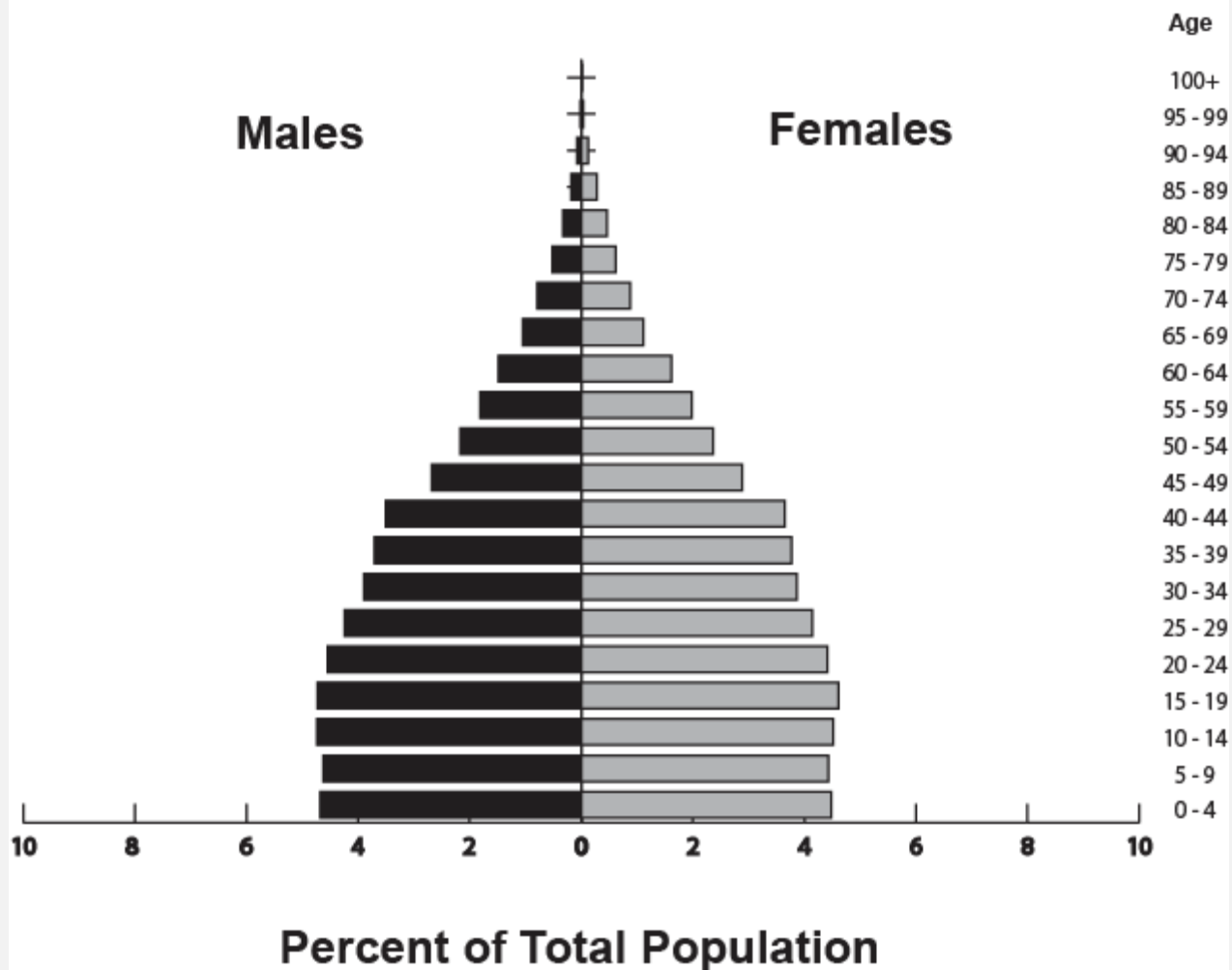
Median age: 23 yrs.

## Youthful



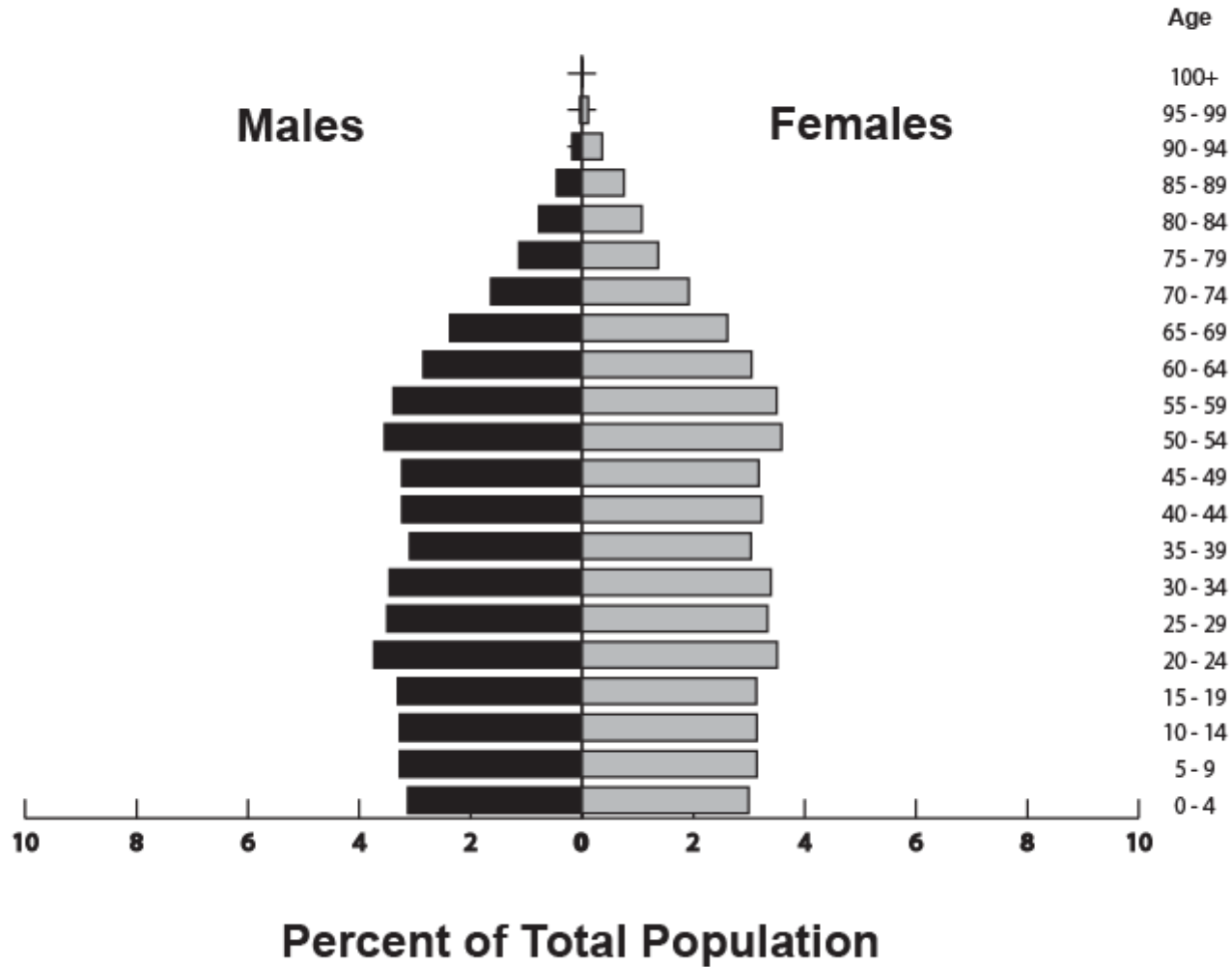
Intermediate

## Mexico 2015



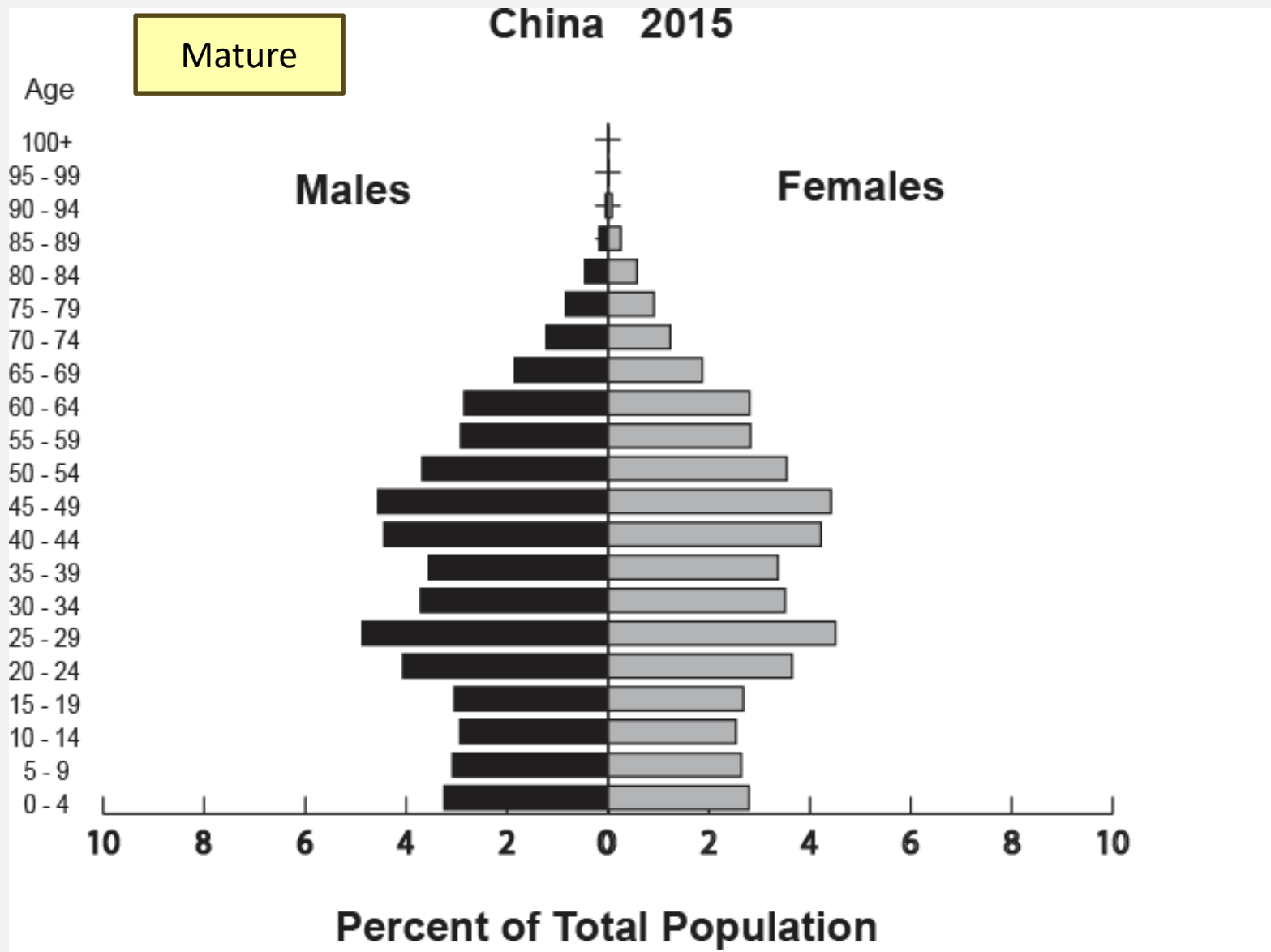
Mature

## USA 2015



Median age: 38 yrs.

Data: UN Population Div., 2017 Rev.

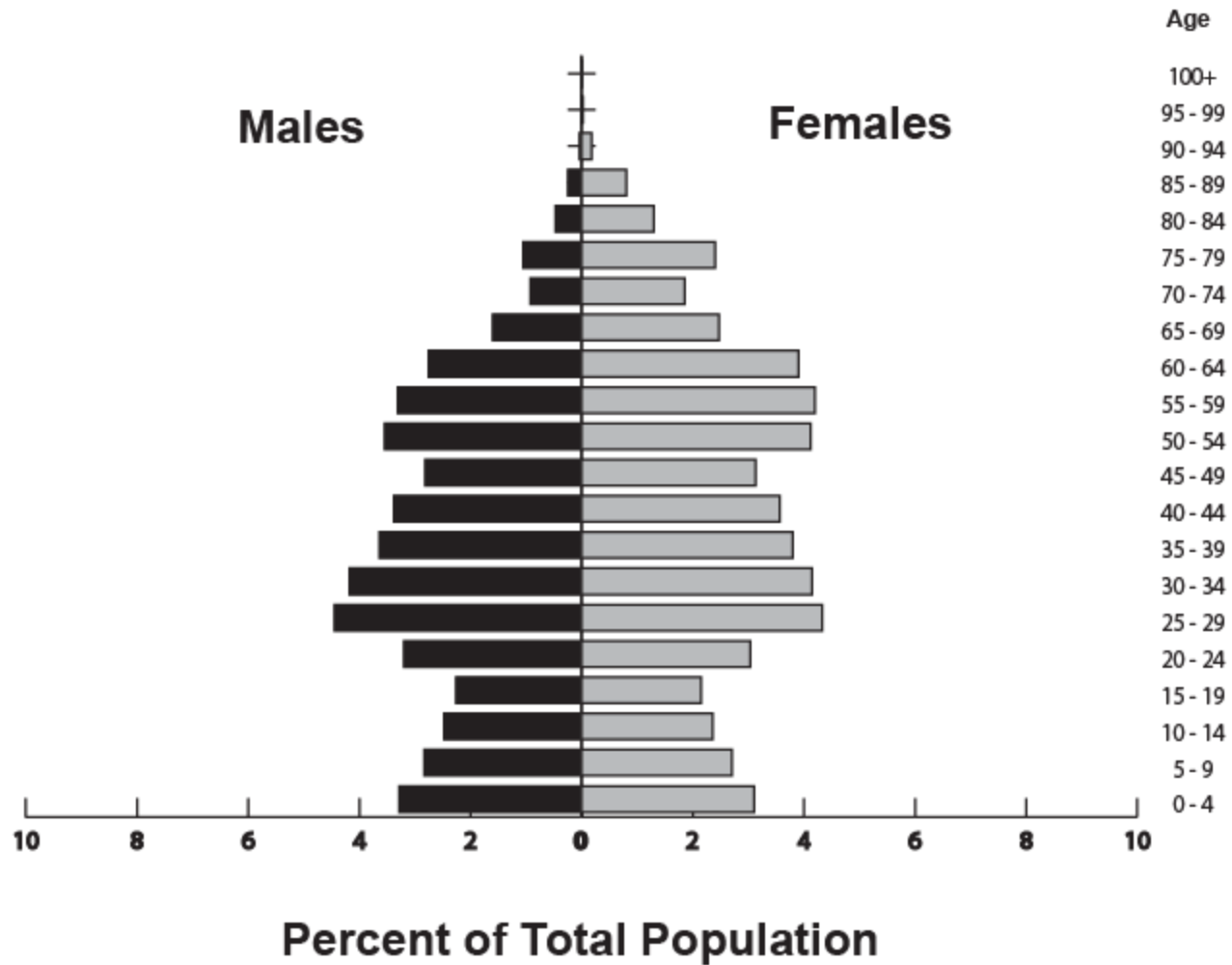


Median age: 37 yrs.

Data: UN Population Div., 2017 Rev.

Mature

## Russia 2015

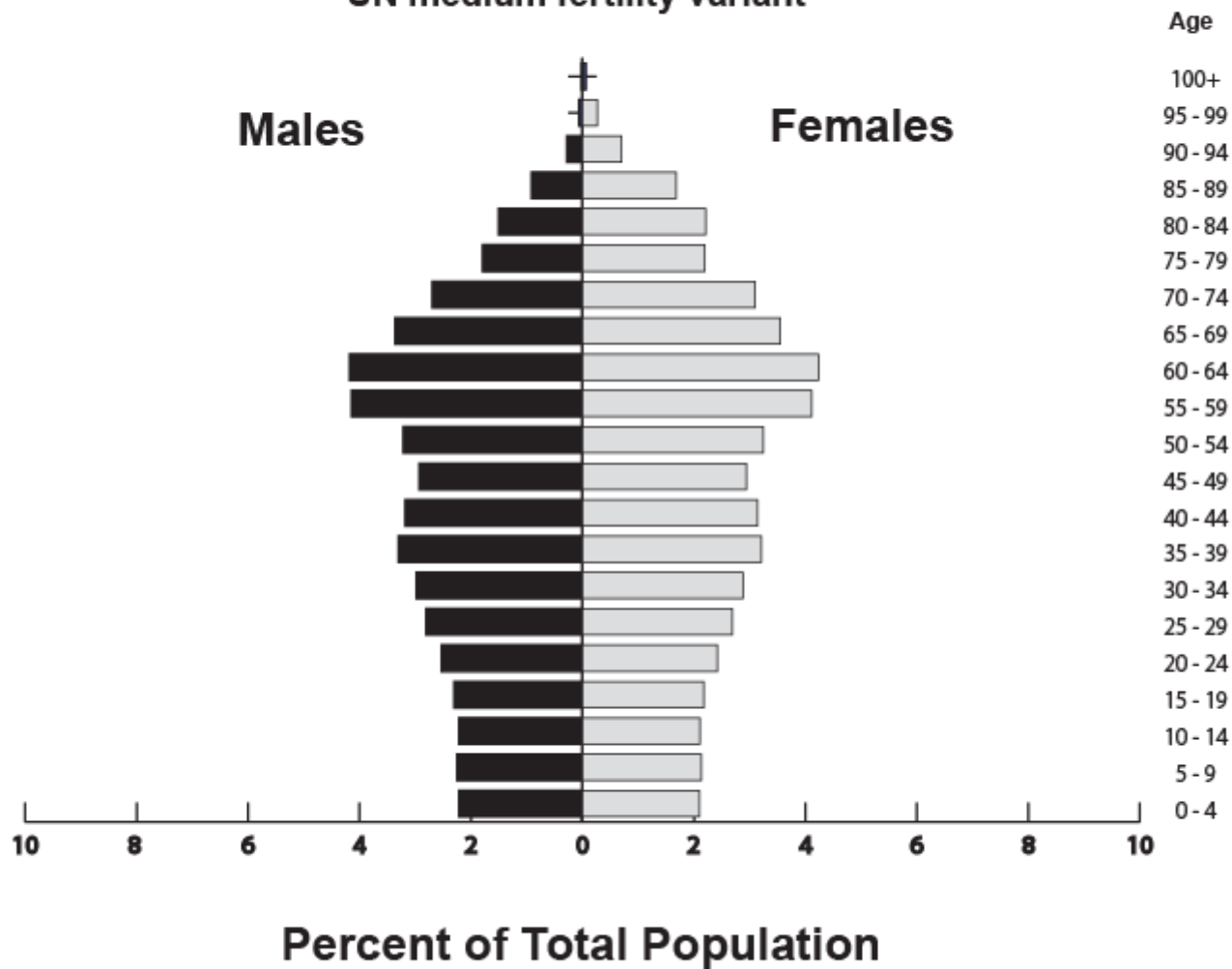


Median age: 39 yrs.

Data: UN Population Div., 2017 Rev.

Post-mature

## Germany 2025 (projected) UN medium fertility variant



Projected Median age: 49 yrs.

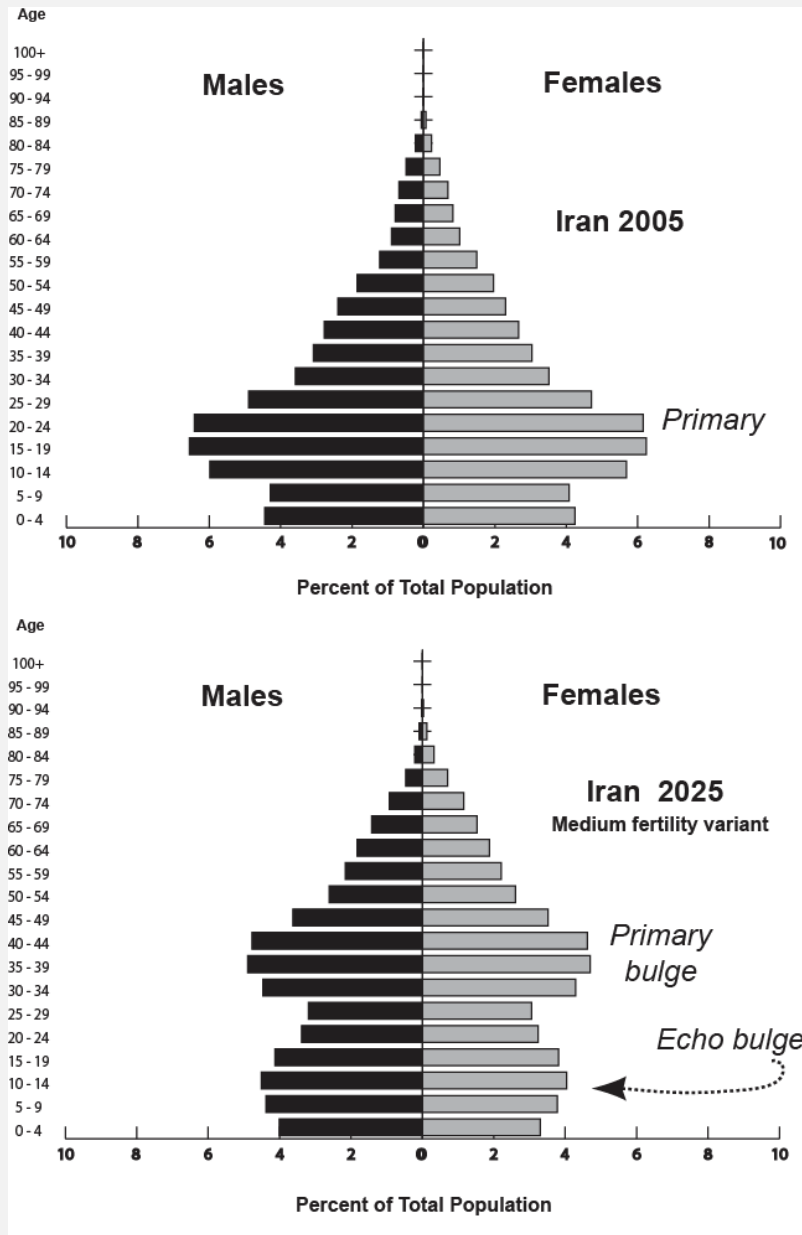
Data: UN Population Div., 2017 Rev.

Youthful

Median age: 24 yrs.

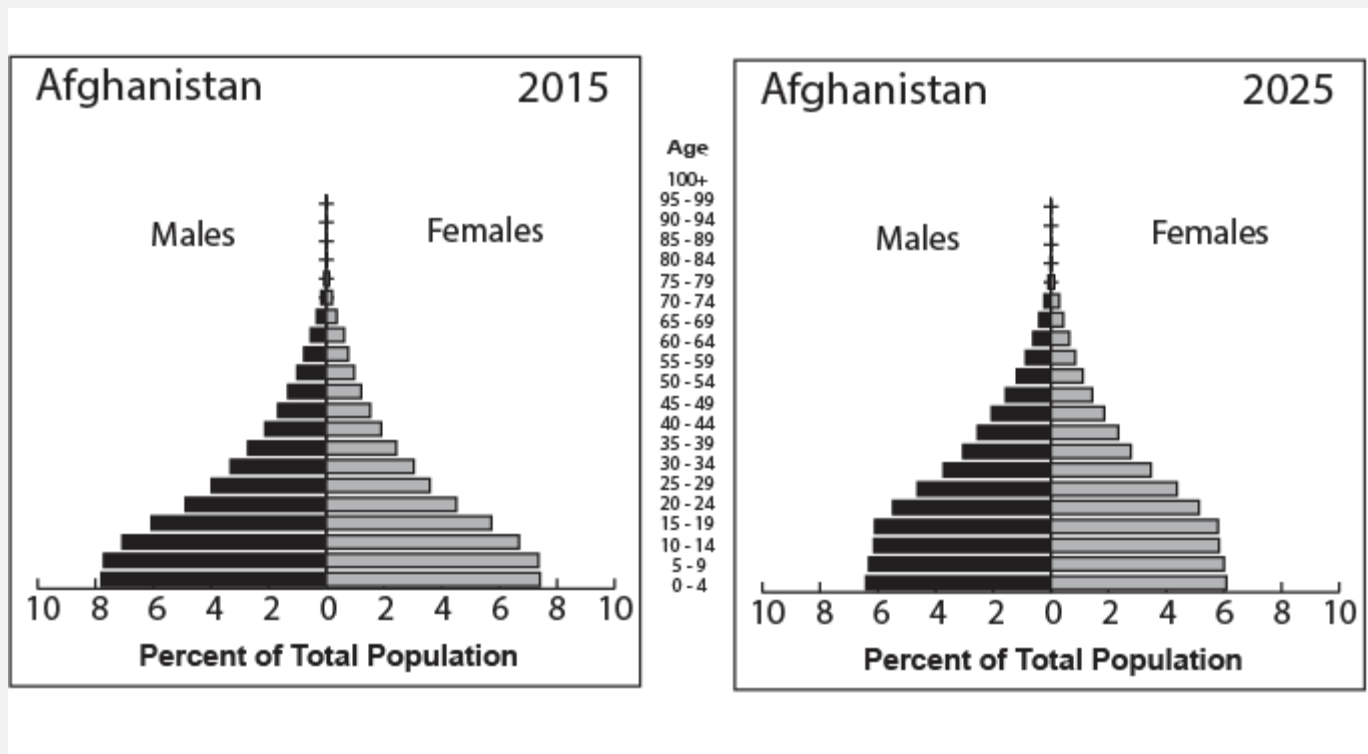
Intermediate

Projected Median age: 35 yrs.





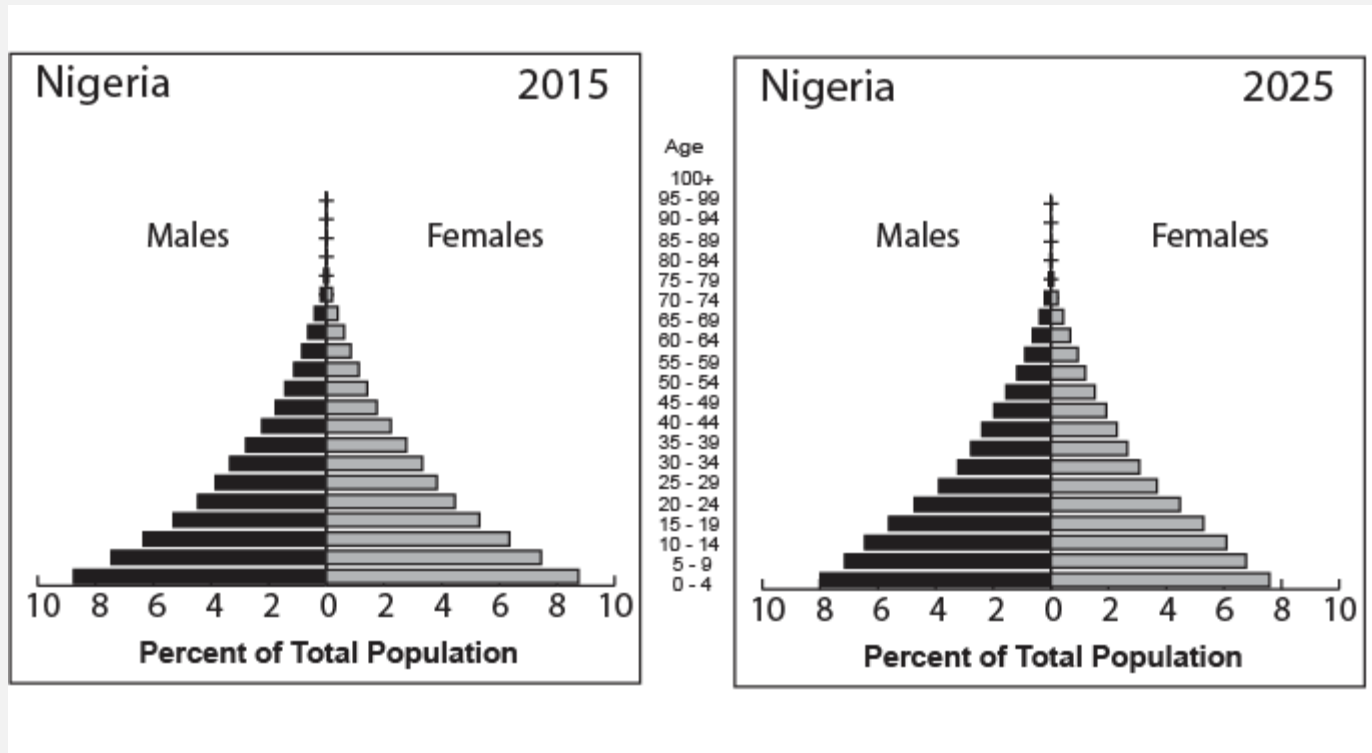
# Afghanistan



Population: 32.5 million

40.2 million  
(UN medium projection)

# Nigeria



Population: 182 million

233 million  
(UN medium projection)

# **The Predictive Value of Population Age Structure**

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