

# The Future of Population

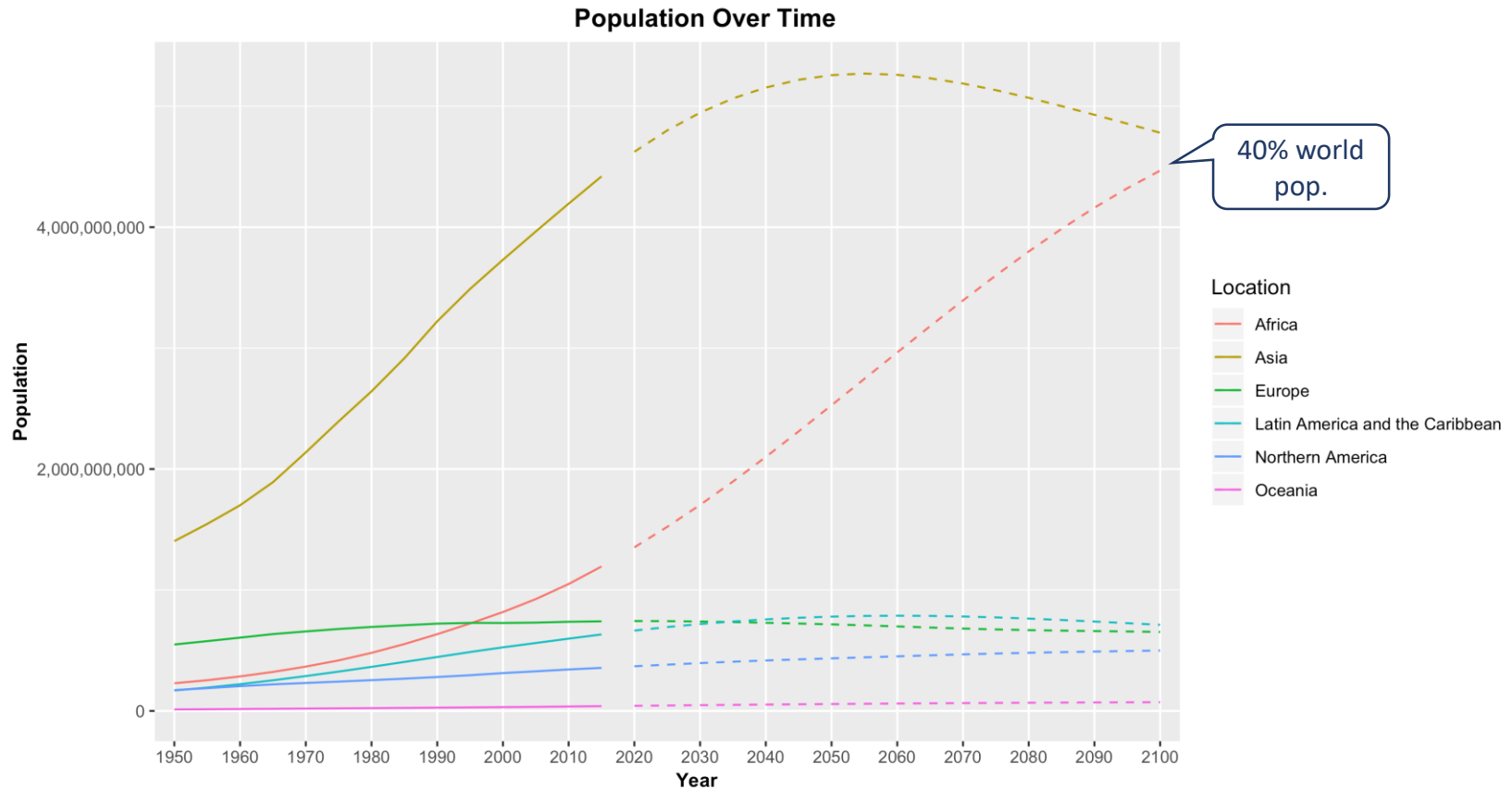
& why we should care

# Population in 2100?

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Est. 11 billion

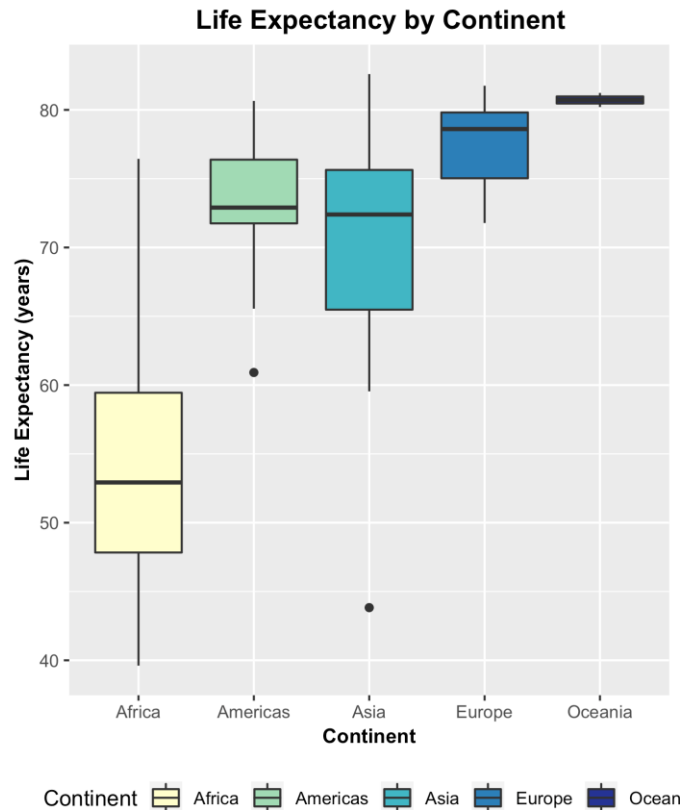
# Africa will contribute ~85% of the world's aggregate population change when comparing 2015 with 2100 populations



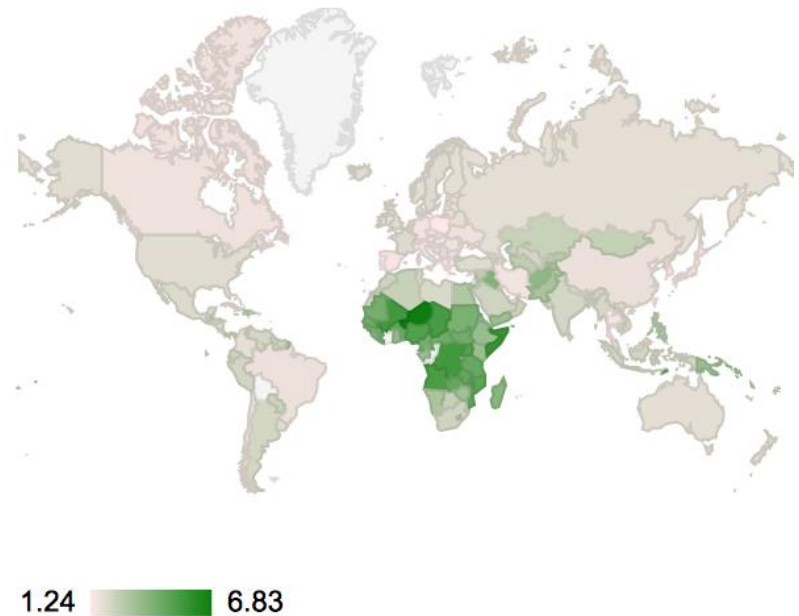
*Implications: water/food supply, security, migration, urbanization*

# Two of the drivers of global population change include life expectancy and fertility rates

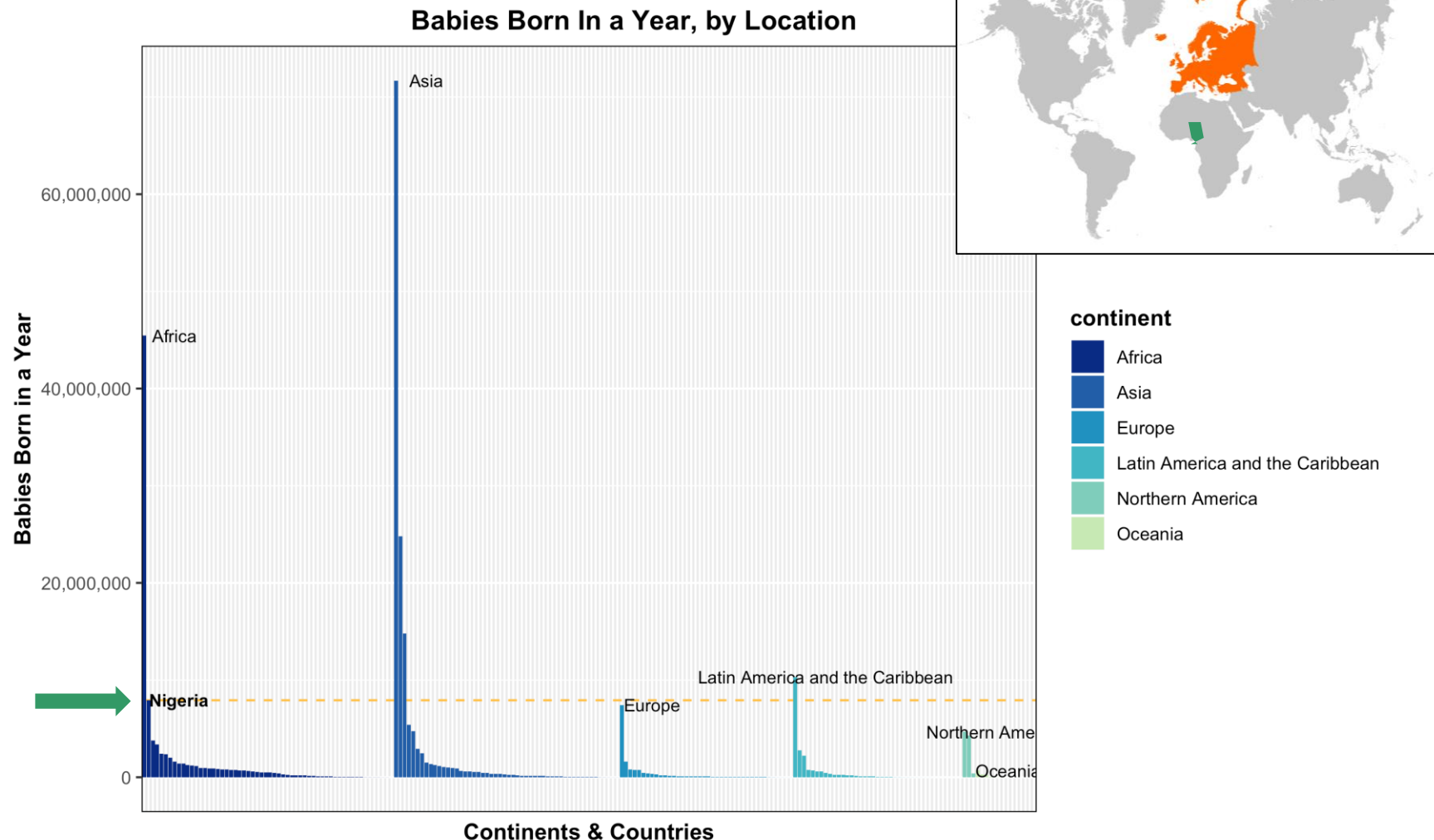
**Life Expectancy, by Continent**  
Years



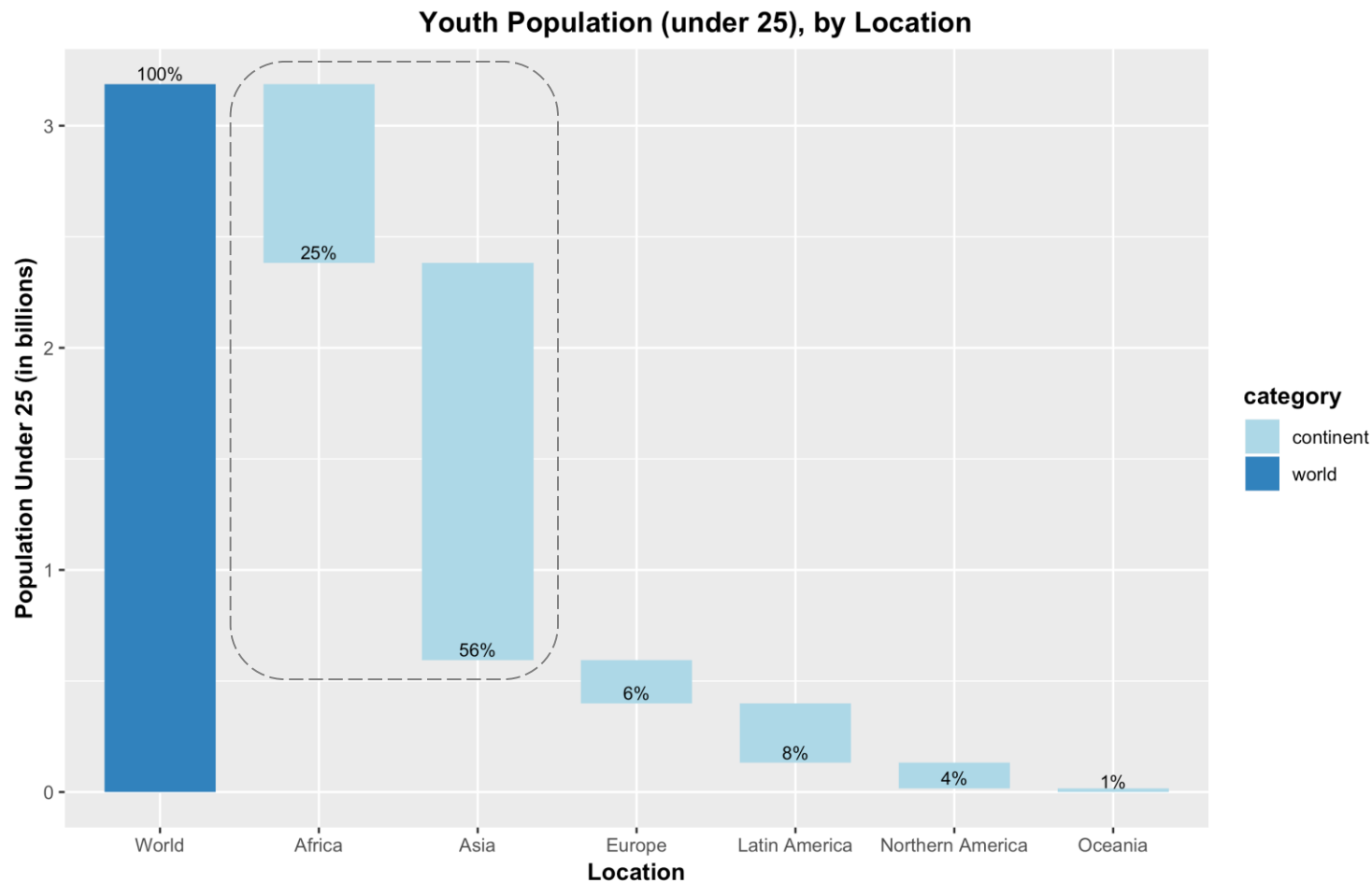
**Fertility Rate Around the World**  
Babies per Woman



# More babies are born in a year in Nigeria than in all of Europe

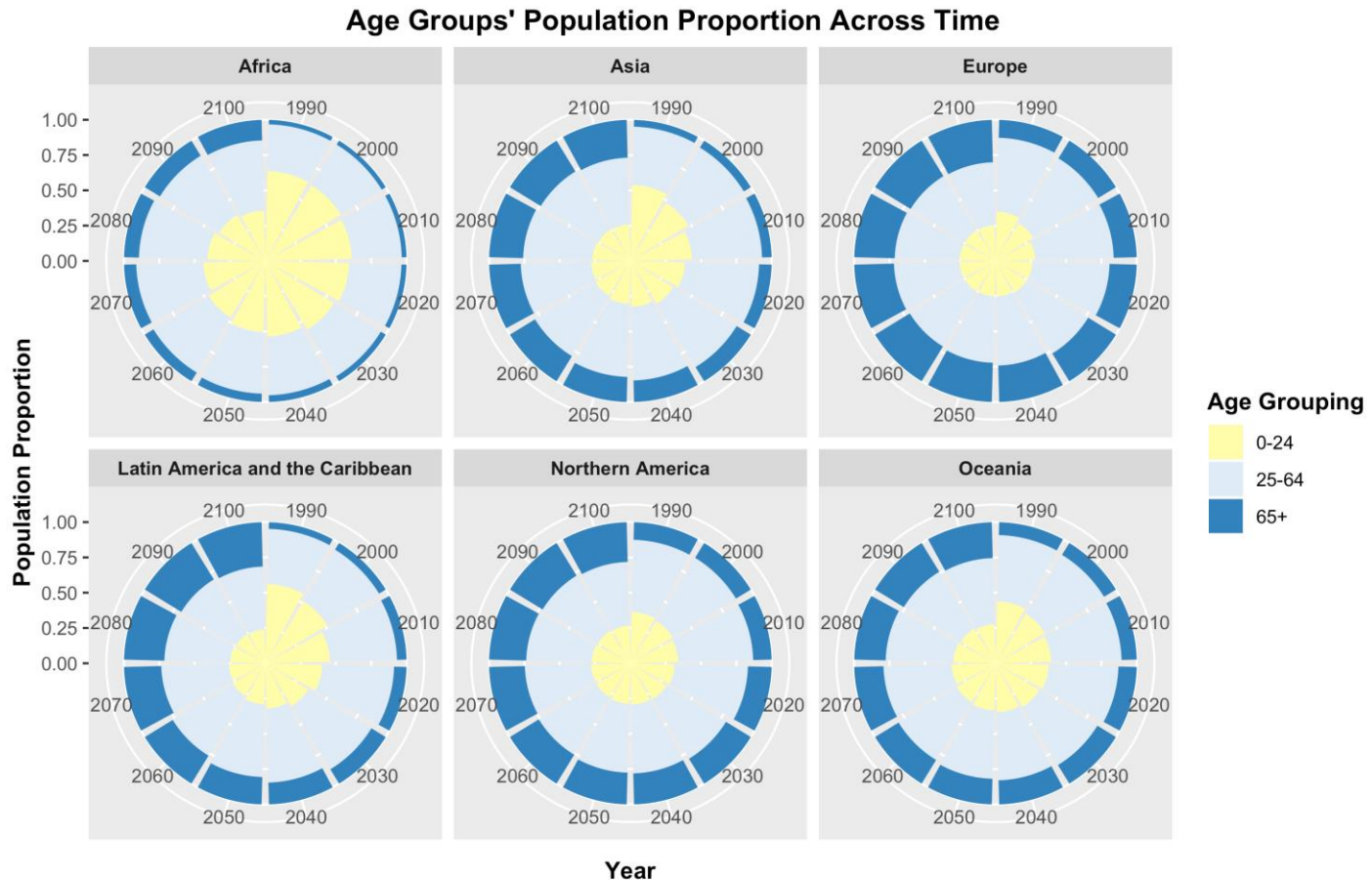


# 56% of the world's youth live in Asia and 25% in Africa, growing to 48% in Africa by 2100



*Implications: youth unemployment, brain drain, education*

# The world's population continues to age, affecting all continents but developed areas disproportionately



*Implications: health care, dependency ratios (social security/pensions), workforce*



# Why should we care?

*Implications abound, regardless of your sector...*

	<u>Private Sector</u>		<u>Public Sector</u>		<u>Social Sector</u>	
Ex. 1	<b>Retail</b>	~2.4b new middle class consumers (2b Asia) <sup>1</sup>	<b>Social Security</b>	What to expect from our Soc. Sec. checks?	<b>Water/food supply</b>	40% less supply than demand for water by 2030 <sup>3</sup>
Ex. 2	<b>Mgmt./ HR/Board</b>	Where talent available & relative cost? Global competitiveness?	<b>Healthcare</b>	How to bend cost curve, given graying of America?	<b>Education</b>	60MM kids in Africa who are out of school <sup>4</sup>
Ex. 3	<b>E-comm.</b>	Alibaba's Singles Day \$25b in revenue vs. Amazon Prime's \$1b <sup>2</sup>	<b>Econ. Growth</b>	How to sustain econ. growth with population declines?	<b>Job re-training</b>	Large job displacemt. possible from automation

 Ex.s of note

# Takeaways: Population Findings

## World Population & Drivers

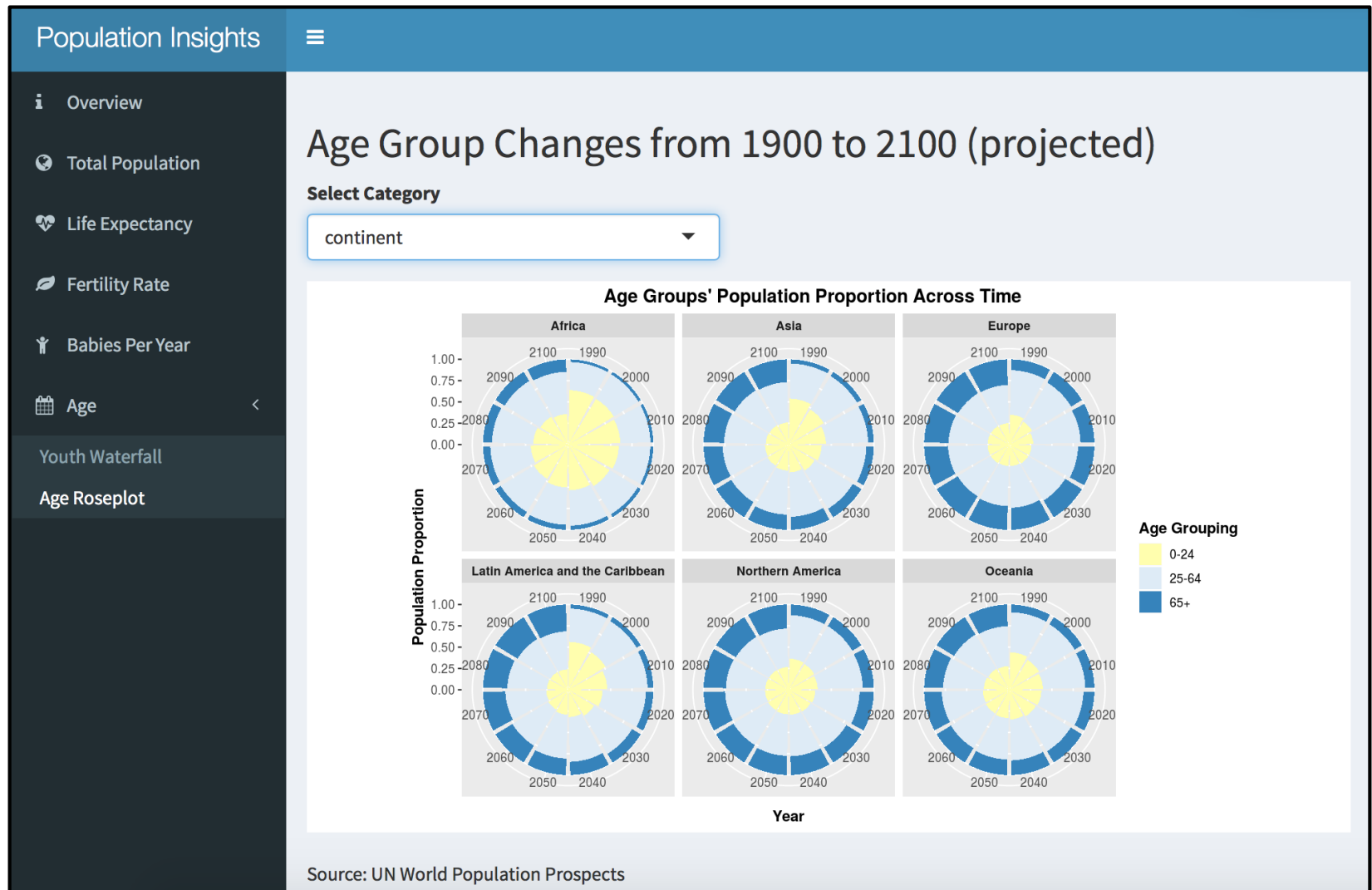
- ⬡ **Aggregate** Africa's population comprise 85% of world's growth (2100 vs. today). Asia's population will start declining ~2055.
- ⬡ **Life Expect.** While life expectancy remains lower in Africa, further improvements will contribute to inc. population.
- ⬡ **Birth Rates** Fertility rates will significantly shape future population.

## Demographics

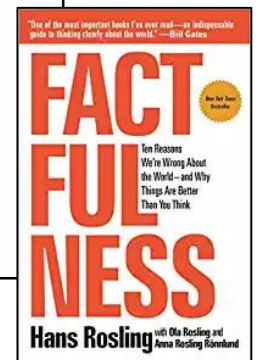
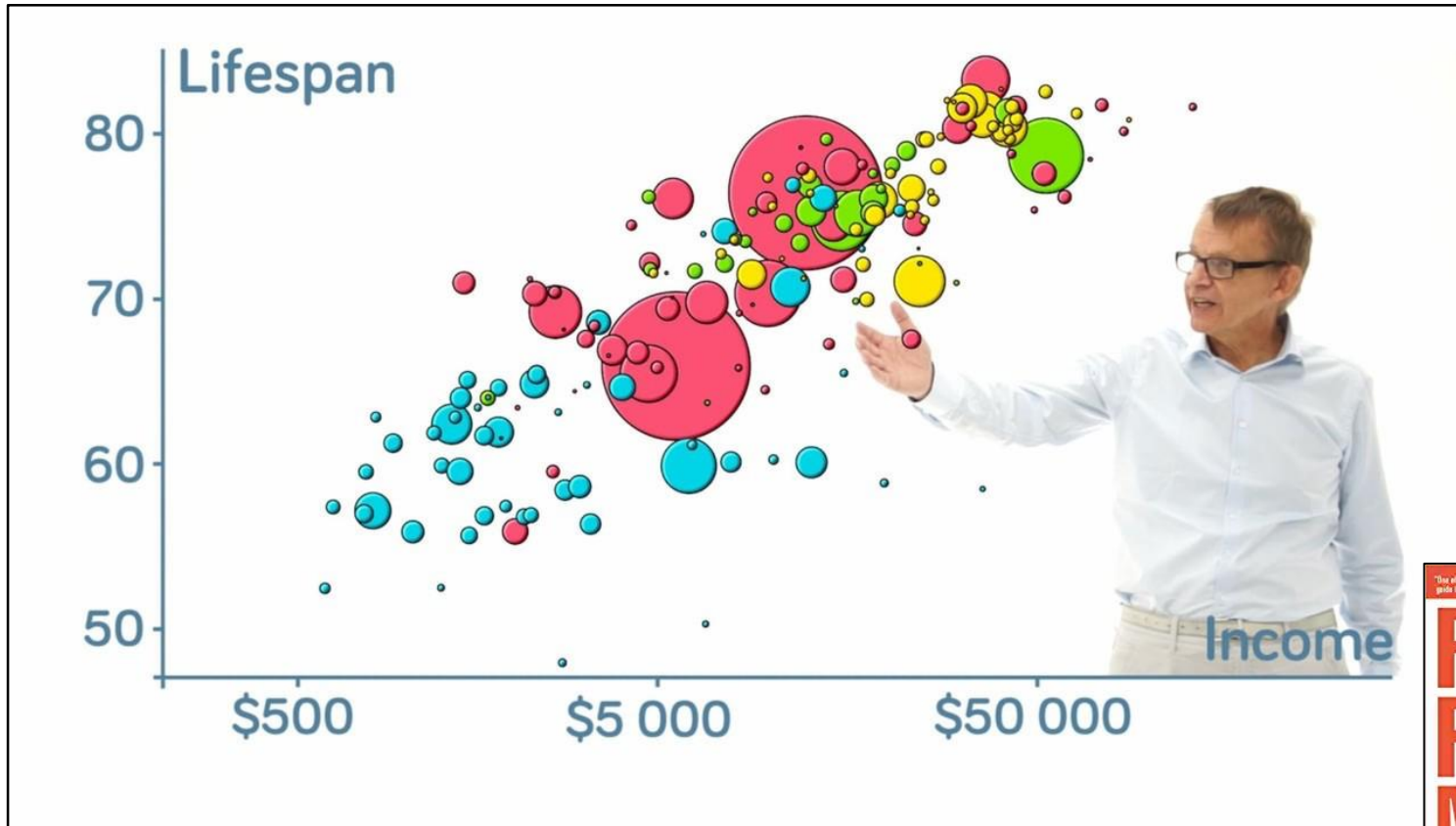
- ⬡ **Case: Nigeria** There are more babies born in a year in Nigeria than in all of Europe (or North America).
- ⬡ **Youth** Nearly all of the world's youth (~80%) reside in Africa & Asia.
- ⬡ **Aging** The world's population will age considerably.

# APPENDIX

# R Shiny App



Inspiration came from Hans Rosling's bubble graphs, which helped inform us about our world's trends



# Birth rates are negatively correlated with women's educational attainment and with income level

