

# Laggards in the Global Fertility Transition

David Shapiro  
Pennsylvania State University

Andrew Hinde  
University of Southampton

Presentation for Wittgenstein Centre Conference 2018: 3rd  
Human Fertility Database Symposium  
Fertility across Time and Space: Data and Research Advances  
Vienna, Austria, 5 December 2018

# Outline

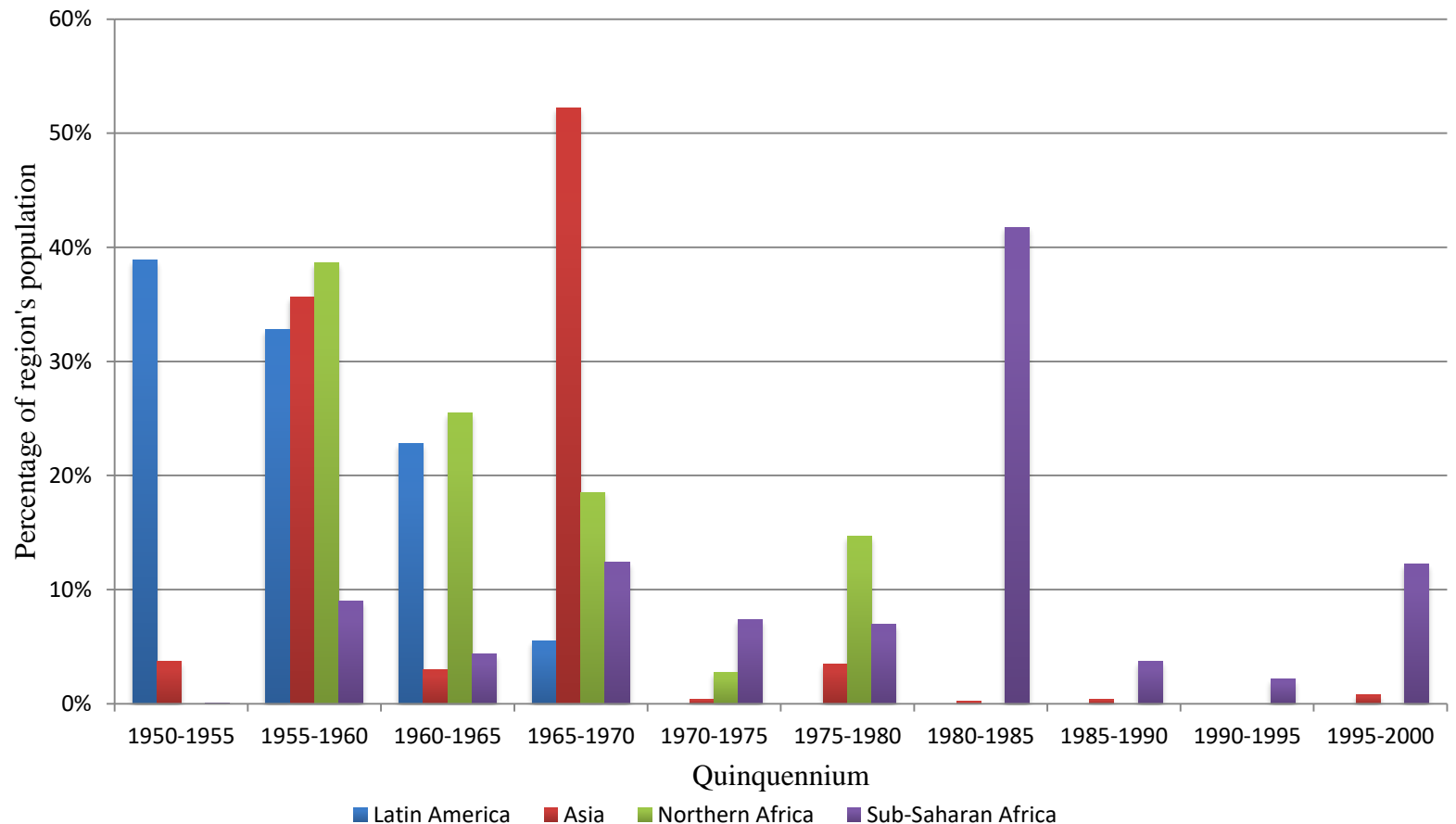
- Introduction: the end of the fertility transition
- Timing of peak fertility and the pace of fertility transition
- The laggards (last seven countries)
- Fertility in the laggard countries, 1950-2015
  - Chad, Democratic Republic of the Congo (DRC), Equatorial Guinea, The Gambia, Mali, Niger, Somalia
  - Comparison with all developing countries and all of sub-Saharan Africa
- Socioeconomic and demographic characteristics of laggard countries
- Prospects for fertility decline in the laggard countries

# The end of the fertility transition

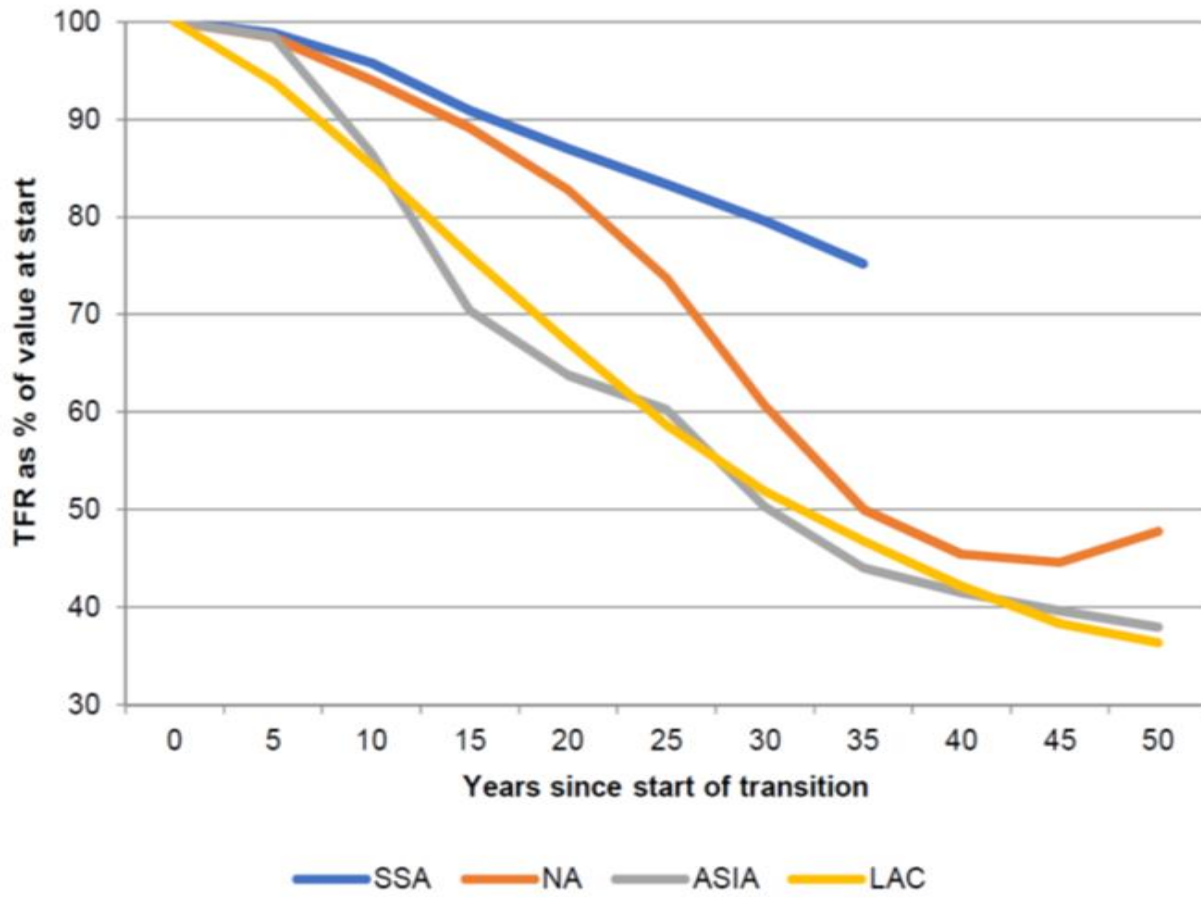
- Fertility transition started in France in 1790s
- > 200 years on it is still incomplete

# Quinquennium of peak fertility by world region

Weighted by population size

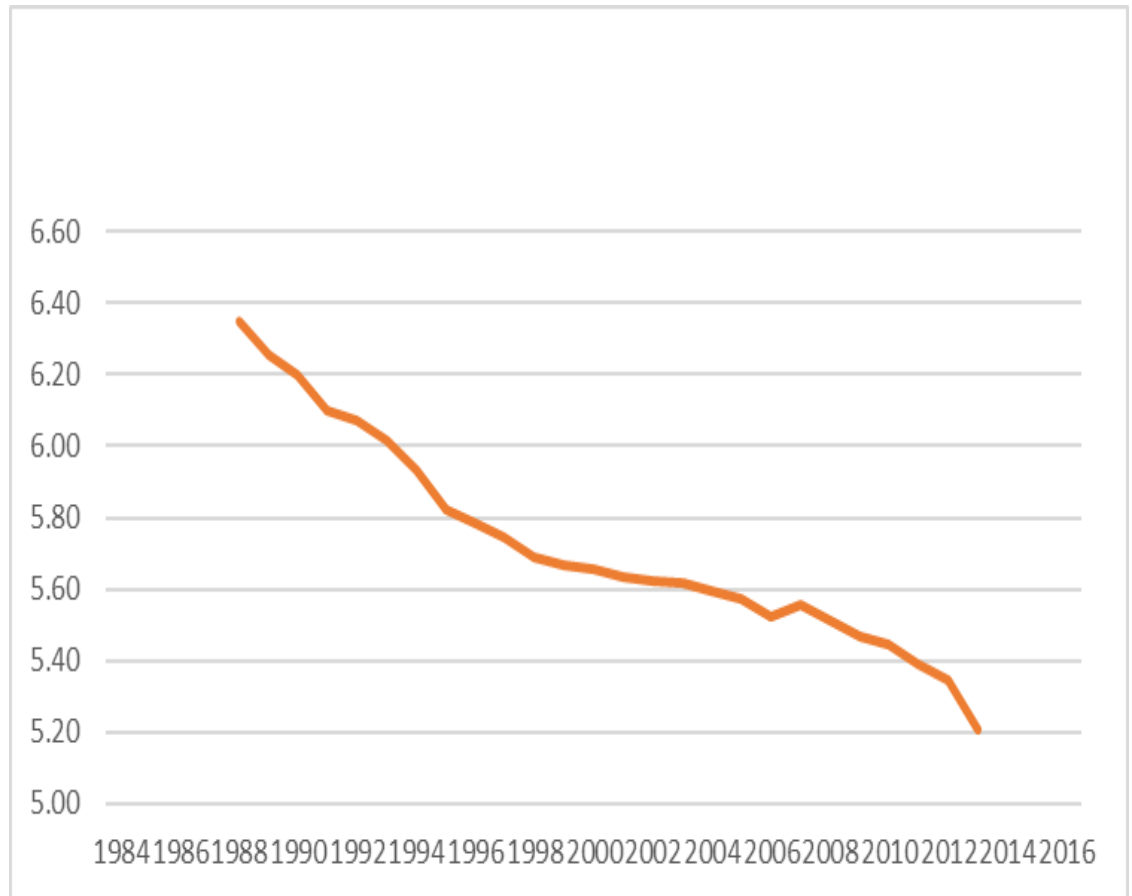


# Pace of fertility decline in world regions



# Total fertility rate in sub-Saharan Africa 1984-2016

- Population weighted averages from DHS data
- Interpolated between DHSs for each country



# Identification of the laggards

- Paper focuses on the 7 countries that are the last in the world to initiate fertility transition
- Fertility has not declined by 10% since its peak (Democratic Republic of the Congo and Niger)
- Fertility declined by 10% from its peak only in 2010-2015 (Chad, Equatorial Guinea, Mali, Somalia and The Gambia)





# Total fertility rates in 1950-1955, 2010-2015, and at peak

Country	1950-55	2010-15	Peak	Quinquennium of Peak	Population, 2015 (millions)
Chad	6.10	6.31	7.41	1995-2000	14.0
DRC	5.98	6.40	6.77	1990-2000 <sup>a</sup>	76.2
Equatorial Guinea	5.67	4.99	5.98	1985-1990	1.2
The Gambia	5.29	5.62	6.34	1975-1980	2.0
Mali	6.95	6.35	7.15	1970-1995 <sup>b</sup>	17.5
Niger	7.30	7.40	7.90	1980-1985	19.9
Somalia	7.25	6.61	7.70	1995-2000	13.9

<sup>a</sup> The TFR estimates were identical for 1990-95 and 1995-2000.

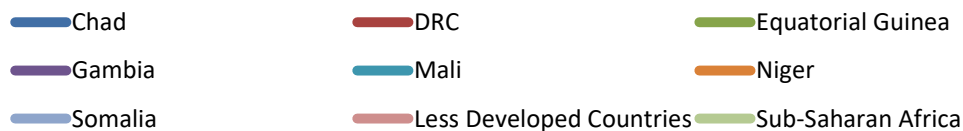
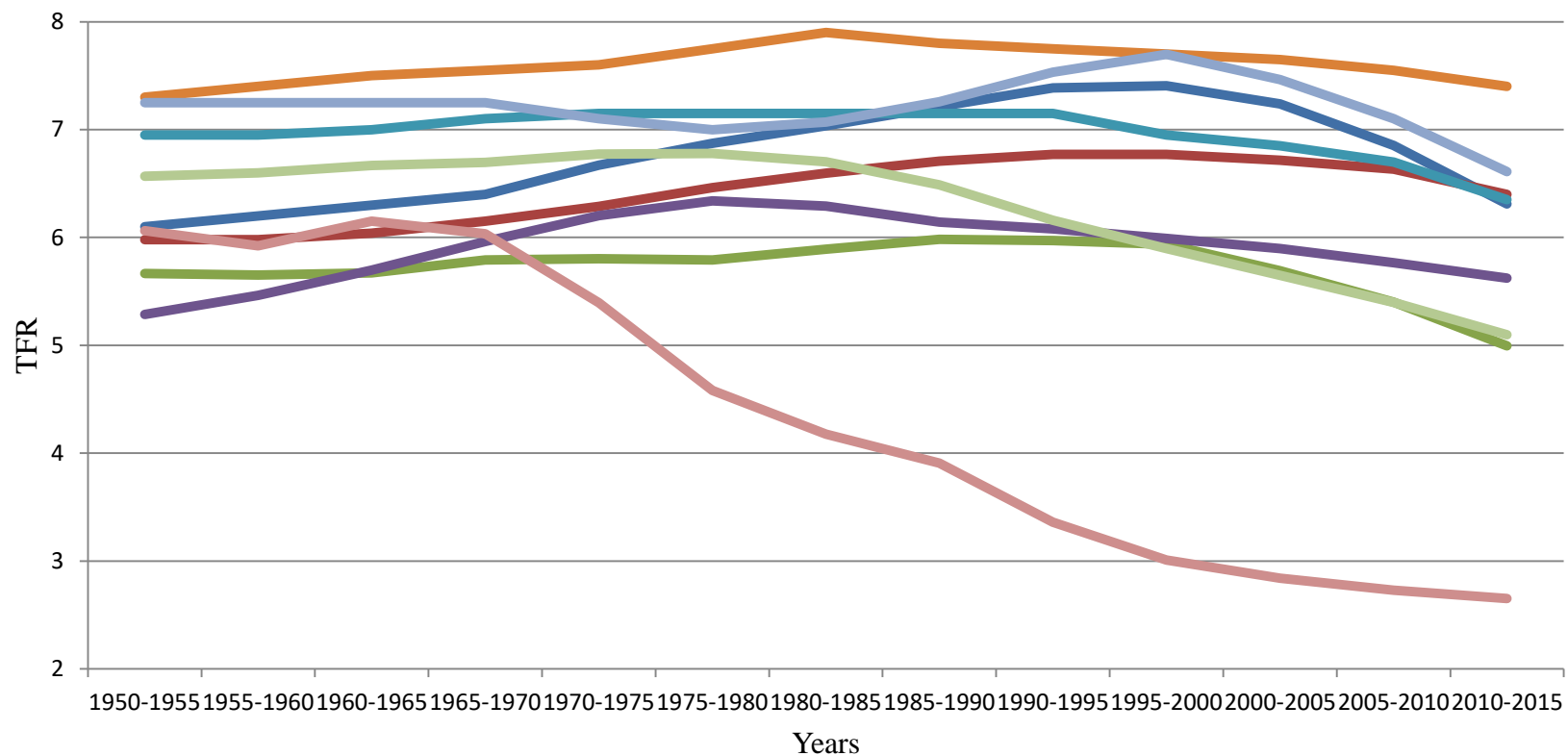
<sup>b</sup> The estimated peak TFR was constant for 25 years.

# Fertility history in the laggards

- Larger than average increases in fertility before the peak in some countries (21% in Chad, 20% in The Gambia)
- Duration of pre-transitional rise in fertility was longer than elsewhere
- Declines from peak fertility have been very slow (even compared with the rest of sub-Saharan Africa) and continue to be so

Country	TFR 2010-2015	TFR 2018 World Population Data Sheet
Chad	6.3	6.4
DRC	6.4	6.3
Equatorial Guinea	5.0	4.7
Gambia	5.6	5.4
Mali	6.3	6.0
Niger	7.4	7.2
Somalia	6.6	6.3

# Total fertility rates, 1950-1955 to 2010-2015



# Socio-economic and demographic characteristics of laggard countries

Characteristic	Average of laggard countries (excl. Somalia)	Average of rest of sub-Saharan Africa
Mean years of schooling for women	3.2	5.6
Percentage of women with no education	58	28
Infant mortality per 1,000 births	60	52
Mean ideal number of children	6.9	4.5
GDP per head (excluding Equatorial Guinea)	\$1,174	\$3,999
Growth in GDP per head in five years before most recent DHS	9%	13%
Median age at first marriage	17.4	19.8
Percentage using modern contraception	8	23

# Characteristics of laggard countries

- Compared to elsewhere in sub-Saharan Africa, these countries typically have
  - lower women's schooling
  - higher infant and child mortality
  - higher ideal number of children
  - lower real GDP/capita
  - more frequent and earlier entry into union
  - much lower use of modern contraception
  - fertility that on average, was 35 percent higher
- Also have high percentage Muslim, though care needed in interpretation of this
- Some, *but not all*, have a history of conflict

# Discussion points

- Laggard countries are not qualitatively different from countries with earlier decline
  - not a different category of country
  - they each have a combination of characteristics which is unfavourable to fertility decline
- Prospects for rapid fertility decline in these seven countries
  - based on combinations of demographic and socio-economic covariates, do not look good
  - but United Nations projections show declining fertility

# Further analysis

- Analysis so far at the country level
- Many countries have 'laggard regions' – some are large (e.g. north-east and north-west Nigeria, TFRs of 6.3 and 6.7 in 2013 DHS)
- Implications for future population growth in Africa and globally

# Thank you for listening

- [dshapiro@psu.edu](mailto:dshapiro@psu.edu)
- [Andrew.Hinde@soton.ac.uk](mailto:Andrew.Hinde@soton.ac.uk)