



PRB

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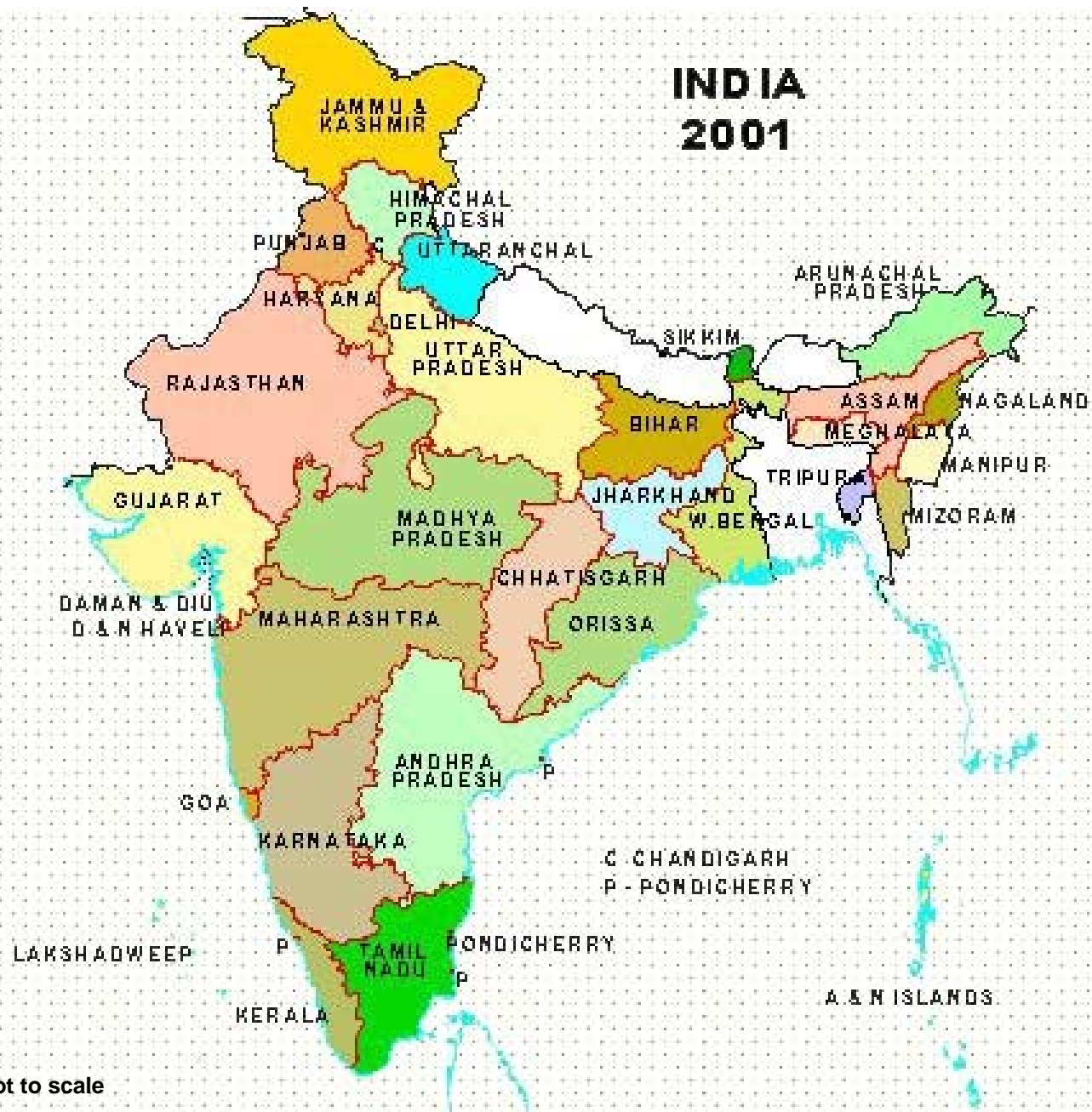
Fertility in India Trends and Prospects

Carl Haub

Population Reference Bureau

carlh@prb.org

INDIA 2001



Map not to scale

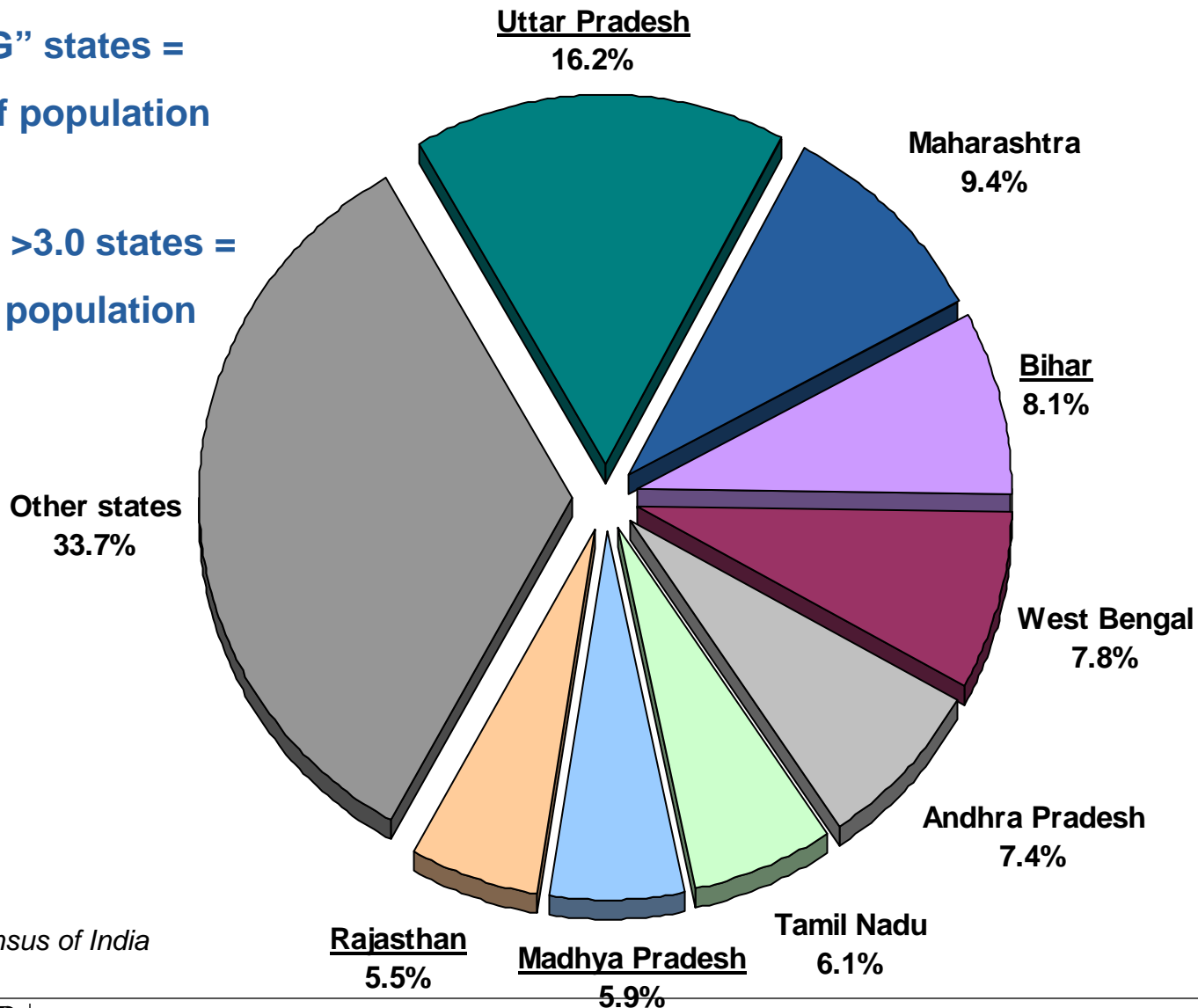
Population Distribution of India by State, 2001

“EAG” states =

40% of population

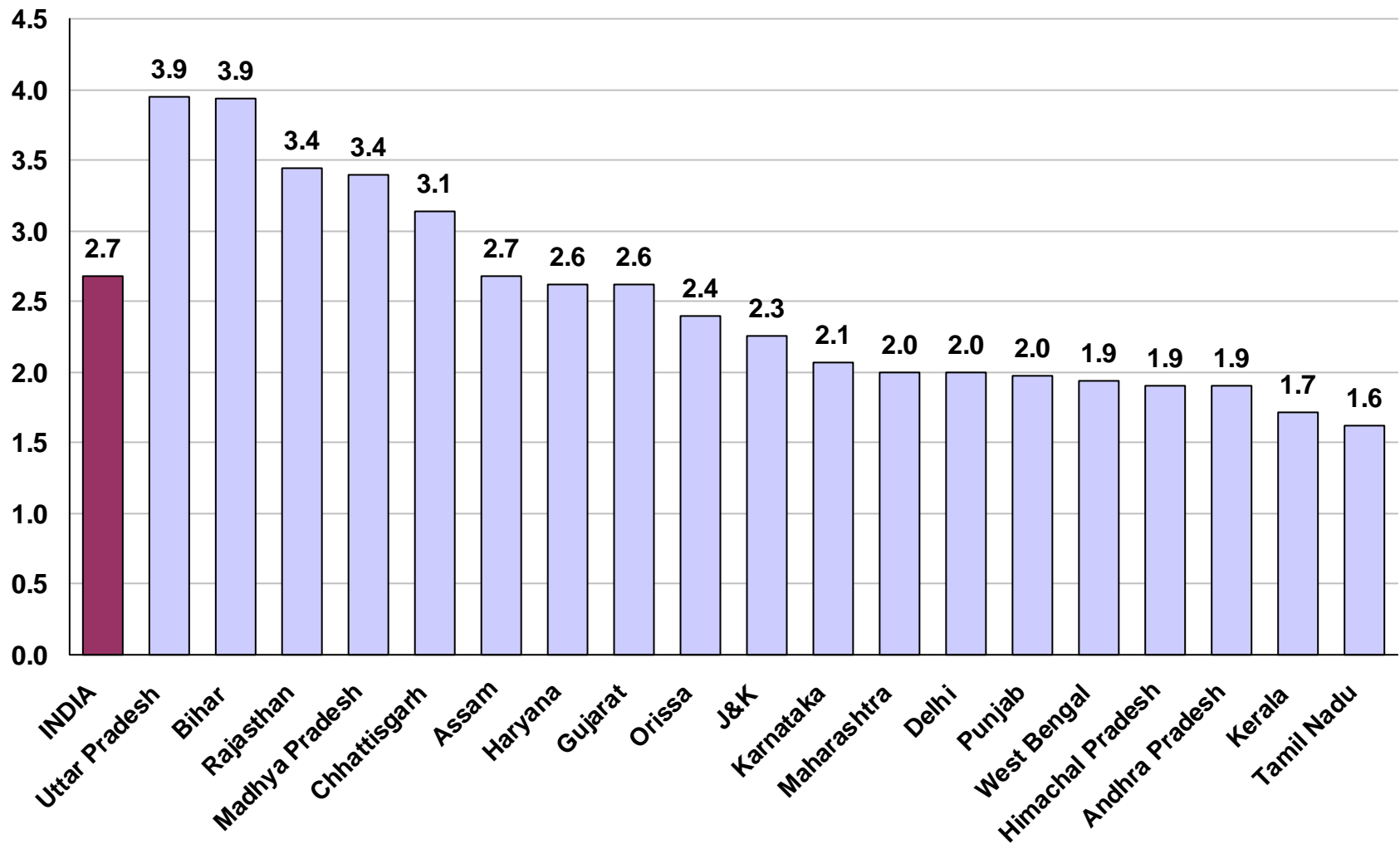
2007 TFR >3.0 states =

42% of population



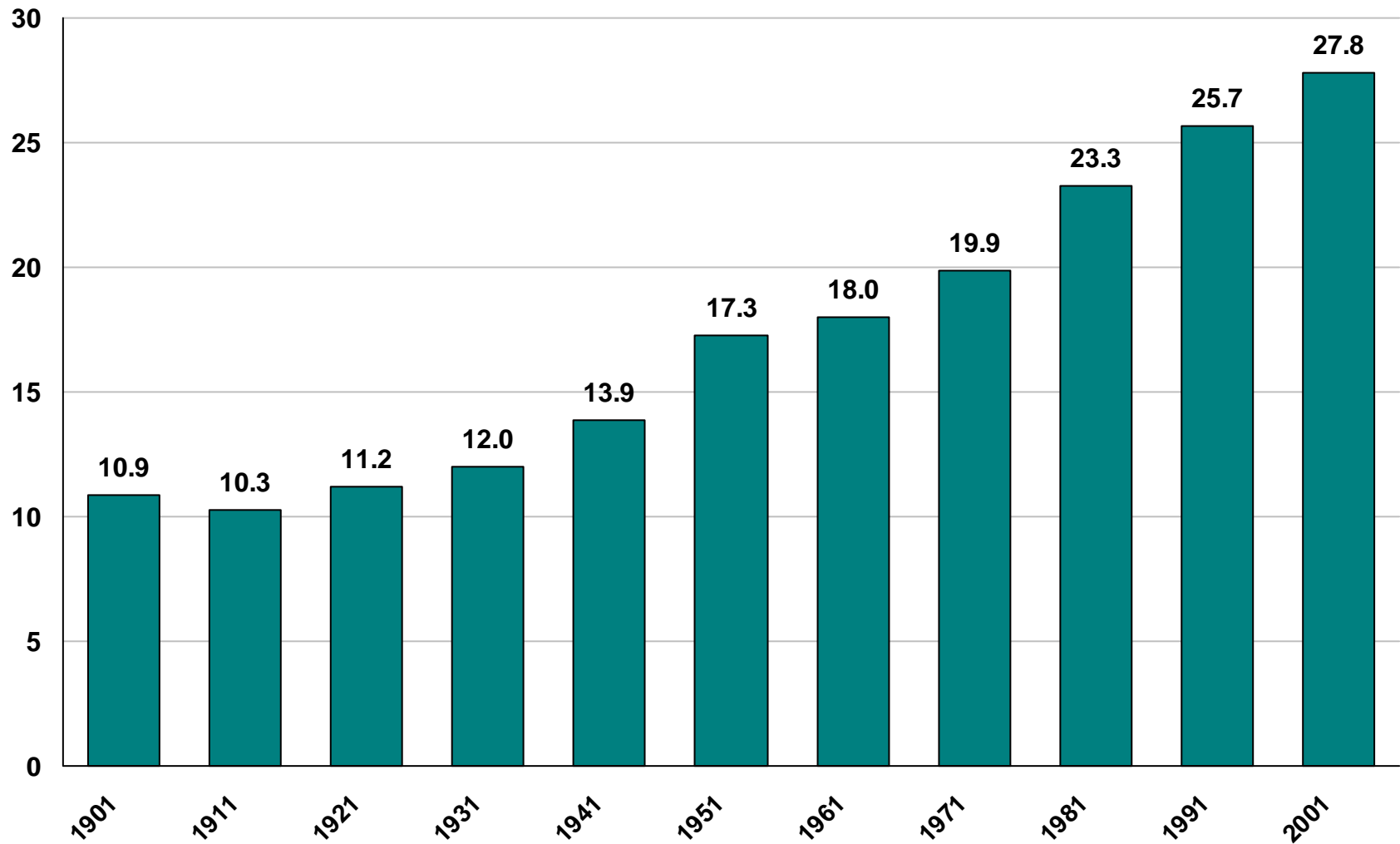
2001 Census of India

Total Fertility Rate, India and Major States, 2007



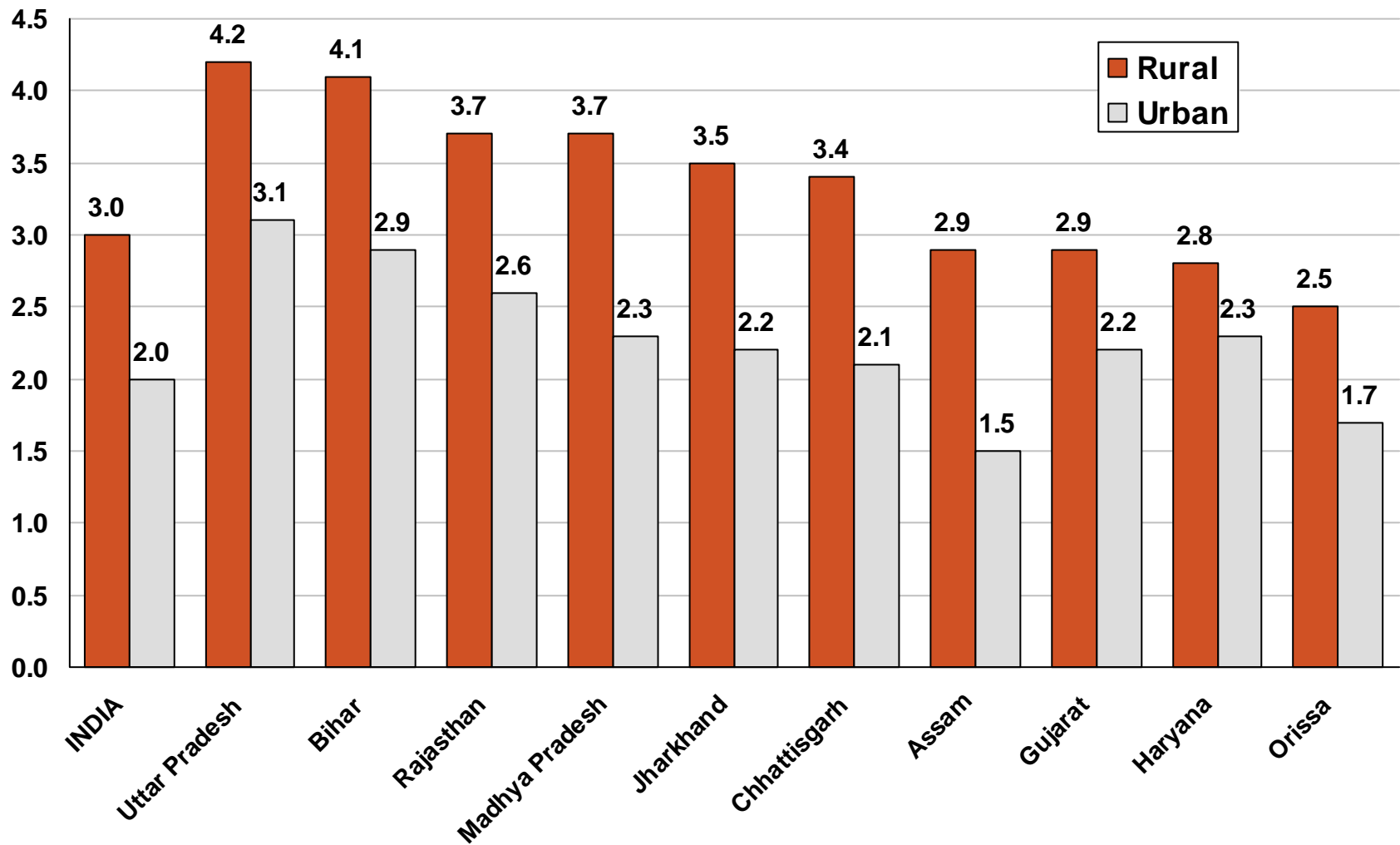
Sample Registration System

Percent of Population Urban, India, 1901 - 2001



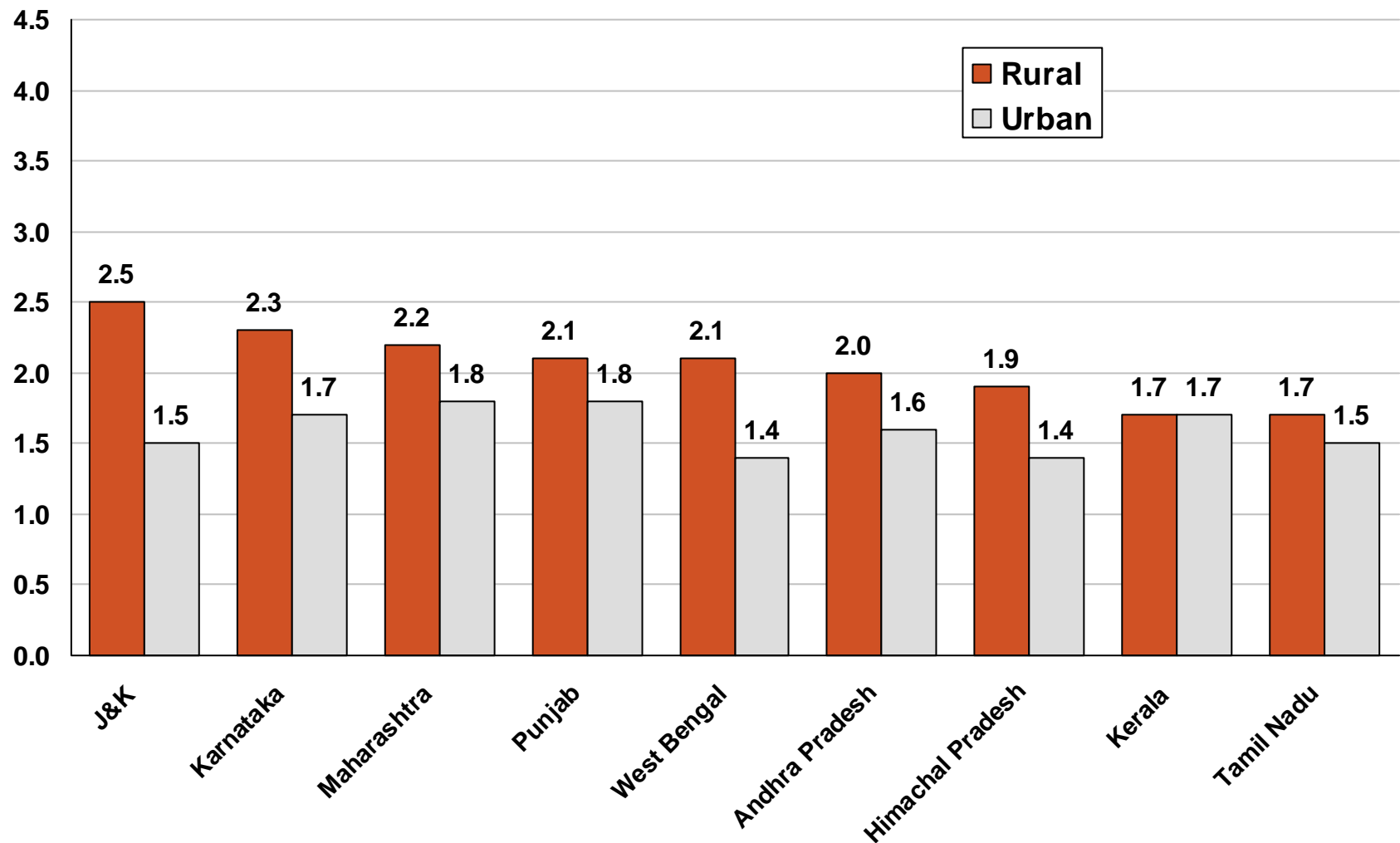
Censuses of India

Total Fertility Rate, India and Major States, Rural and Urban, 2007



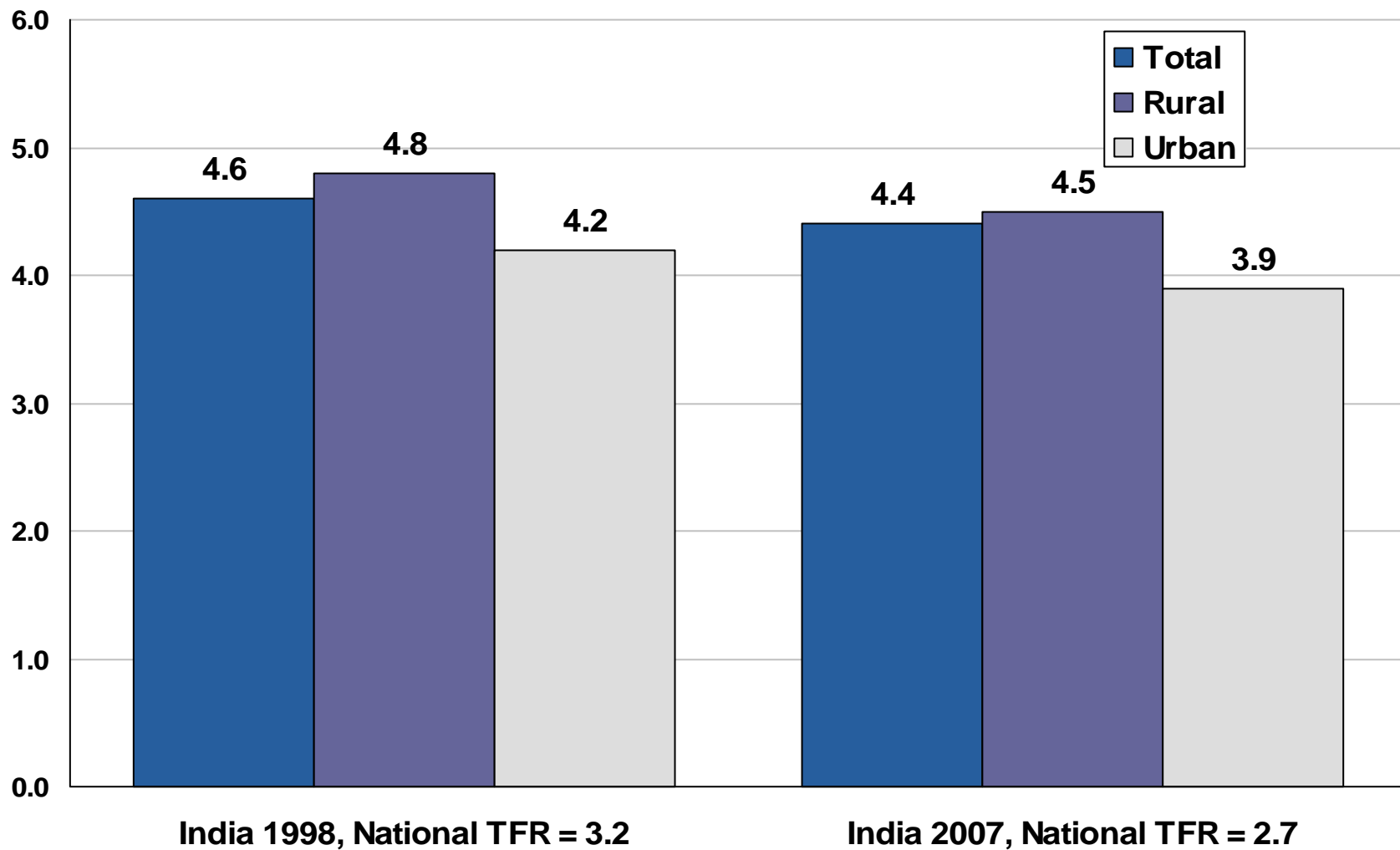
Sample Registration System

Total Fertility Rate, India and Major States, Rural and Urban, 2007 - con't



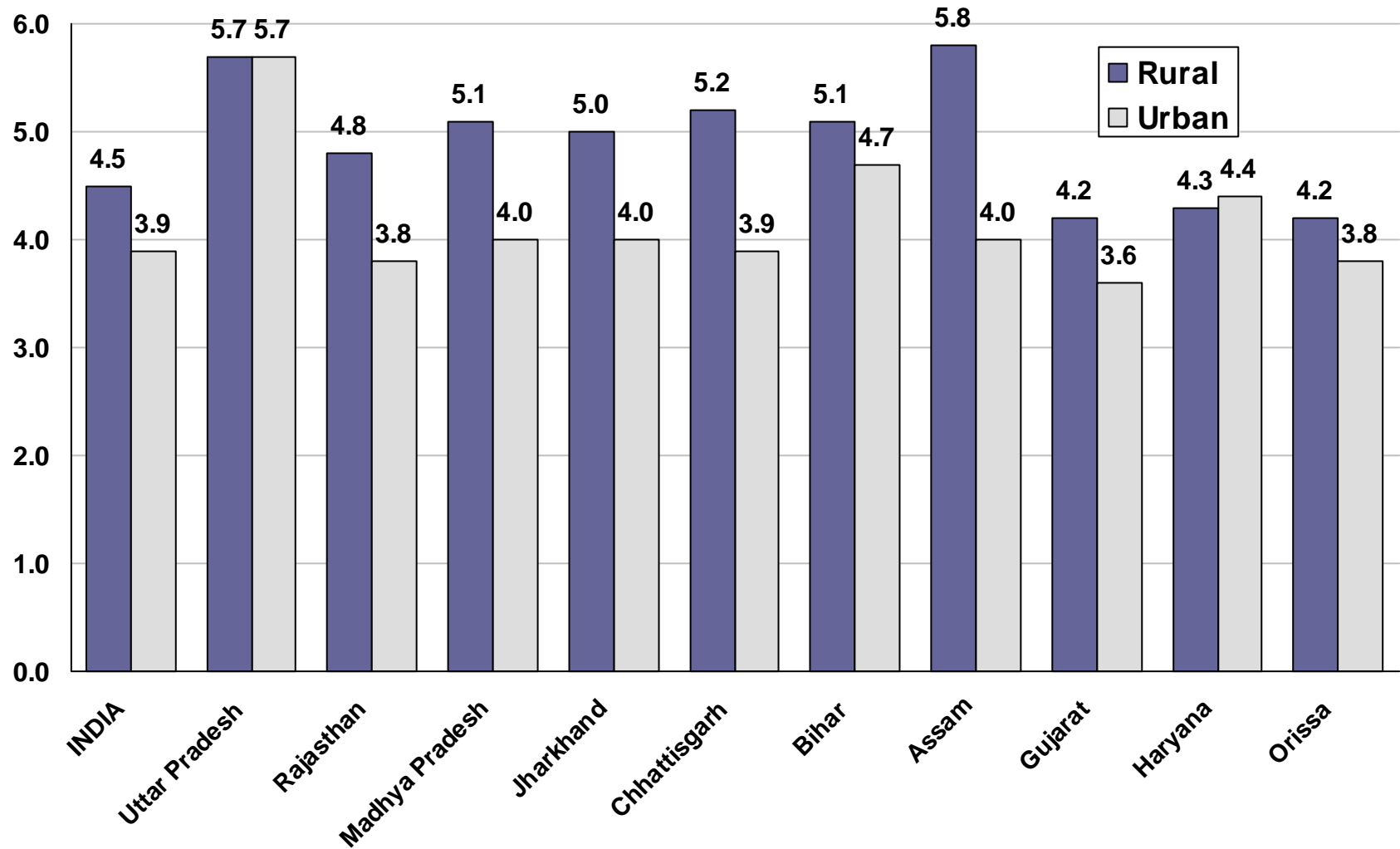
Sample Registration System

Total Marital Fertility Rate, India, Total, Rural, and Urban, 1998 and 2007



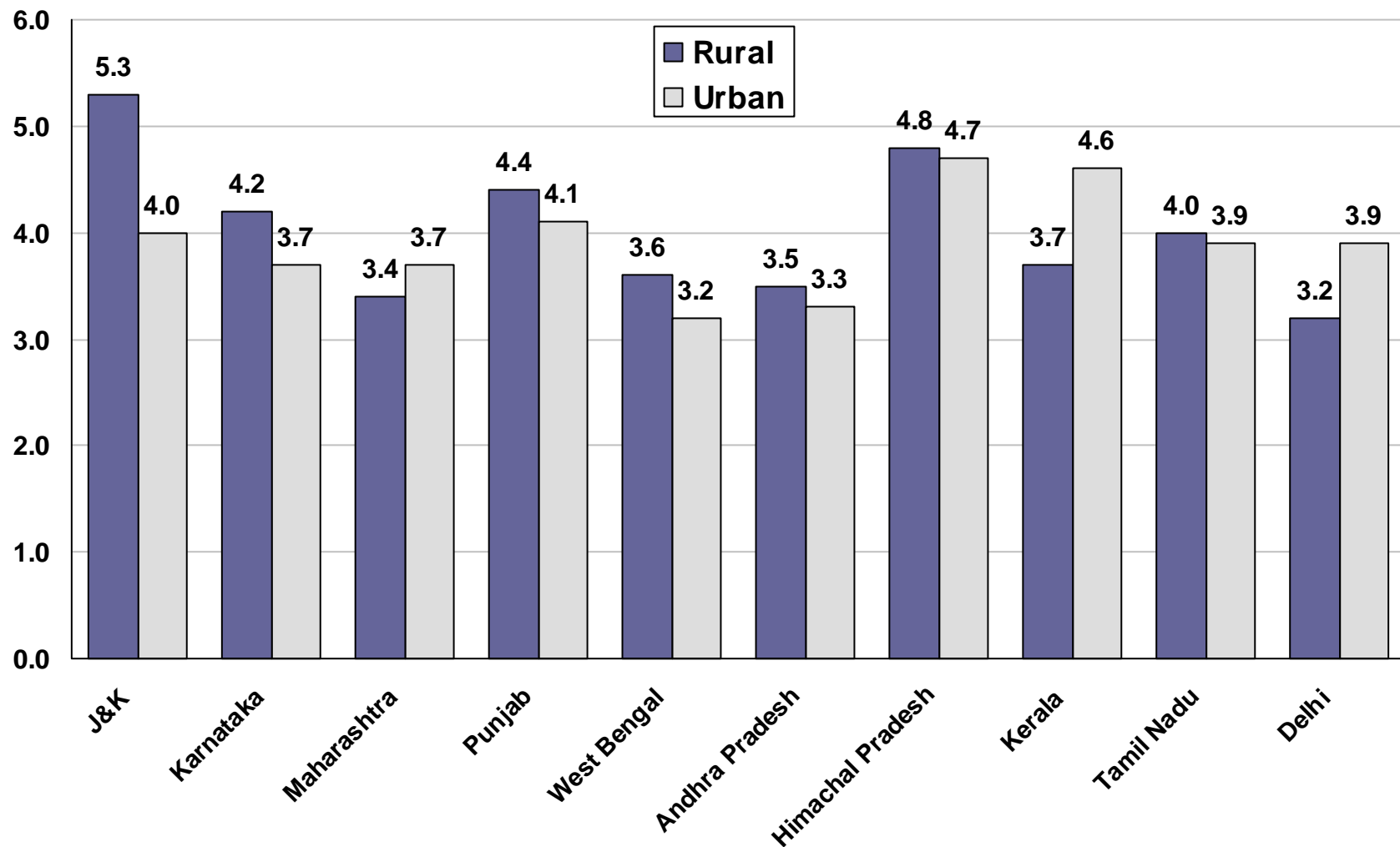
Sample Registration System

Total Marital Fertility Rate, India and Major States, Rural and Urban, 2007



Sample Registration System

Total Marital Fertility Rate, India and Major States, Rural and Urban, 2007 - con't



Sample Registration System

The “Demographic Divide” in Three States of India

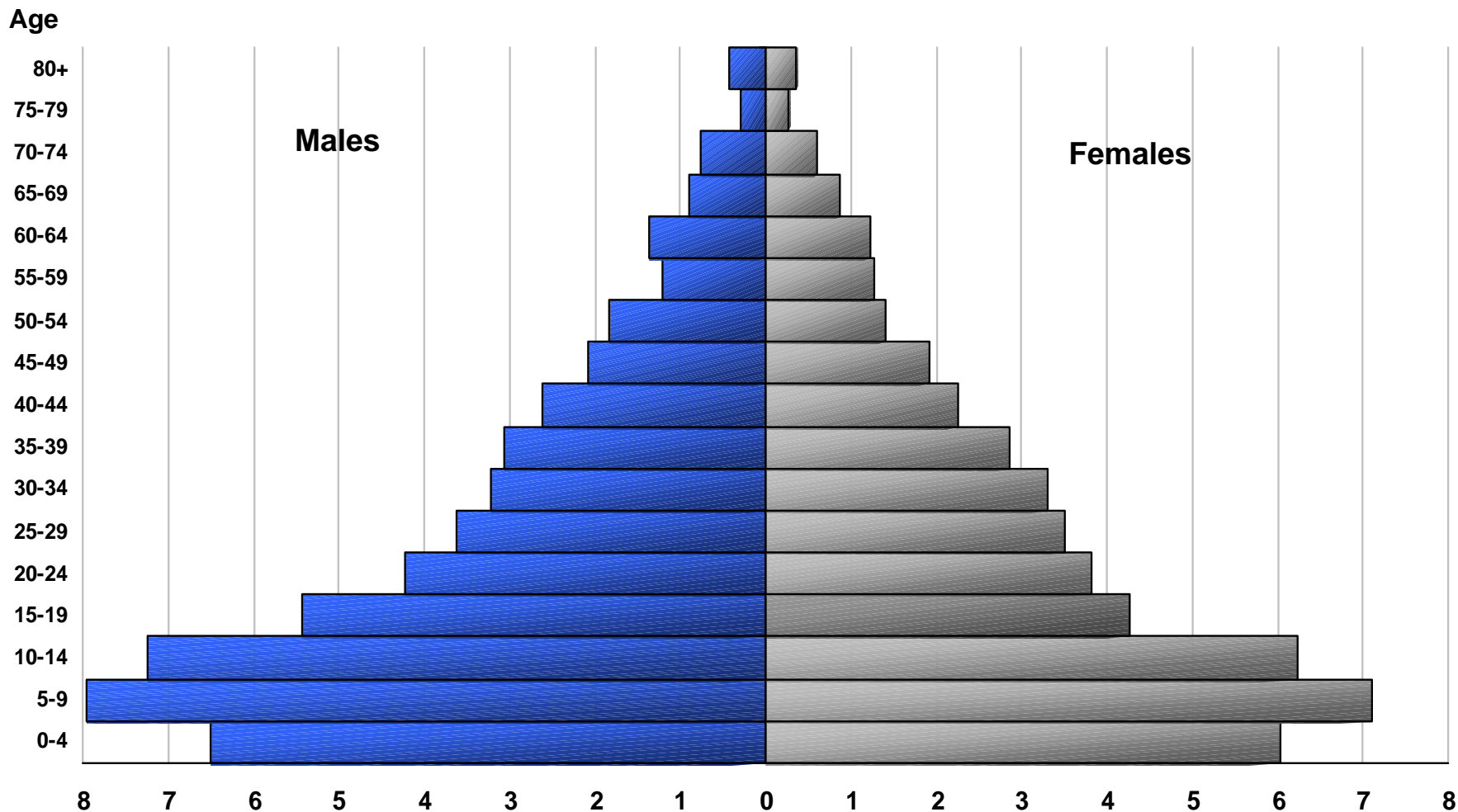
	<u>Uttar Pradesh</u>	<u>Bihar</u>	<u>Kerala</u>
Population 2001 (millions)	166	83	32
Population 2009	196	97	34
Literacy Male/Female (%), 2001	69/42	60/33	94/88
Total fertility rate, 2007	3.9	3.9	1.7
Modern contraceptive prev. '07-08	26.7	28.4	53.1
Traditional contra. prev. '07-08	11.4	3.6	9.0
Urban population (%), 2001	21	10	26
Percent of population < age 15, 2001	41	42	26
Households with electricity (%) '07-08	38	10	70
HH with access to toilet facility, '07-08	26	17	97
HH in permanent-type house, 2001	53	41	68
HH, with television, 2001	25	9	39
HH with car, jeep, or van, 2001	2.2	0.9	4.0
HH with two-wheeler, 2001	10.4	3.6	10.0
HH in one-room house, 2001	30	43	11
HH with low standard of living, '07-08	64	80	9

2001 Census of India, District Level Health Survey, 2007-2008, and PRB projections

UTTAR PRADESH: 2001 Census Reported Population, by Age and Sex

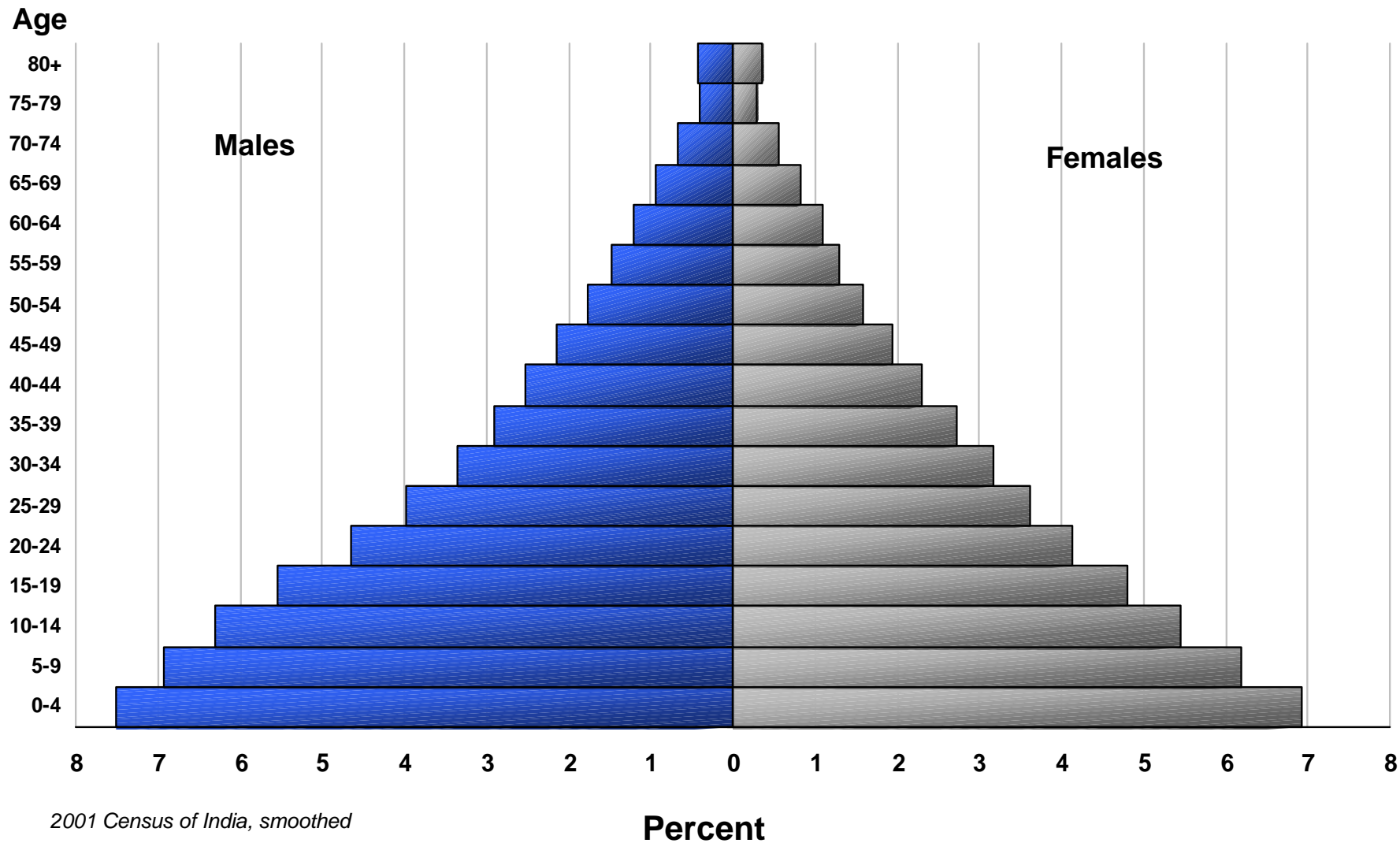
Age	Male	Female	Female minus Male	Sex Ratio
All ages	87,563,471	78,631,176		
0-4	10,791,490	10,021,978	-769,512	1.077
5-9	13,205,699	11,795,908	-1,409,791	1.120
10-14	12,041,869	10,367,597	-1,674,272	1.161
15-19	9,018,223	7,098,006	-1,920,217	1.271
20-24	7,007,116	6,363,864	-643,252	1.101
25-29	6,009,187	5,835,437	-173,750	1.030
30-34	5,364,259	5,497,795	133,536	0.976
35-39	5,100,187	4,751,820	-348,367	1.073
40-44	4,334,189	3,748,960	-585,229	1.156
45-49	3,468,288	3,200,143	-268,145	1.084
50-54	3,027,280	2,330,914	-696,366	1.299
55-59	1,992,036	2,121,263	129,227	0.939
60-64	2,274,377	2,036,975	-237,402	1.117
65-69	1,474,525	1,445,036	-29,489	1.020
70-74	1,258,532	991,321	-267,211	1.270
75-79	500,502	446,838	-53,664	1.120

Population Pyramid of Uttar Pradesh, 2001 Census, Unsmoothed



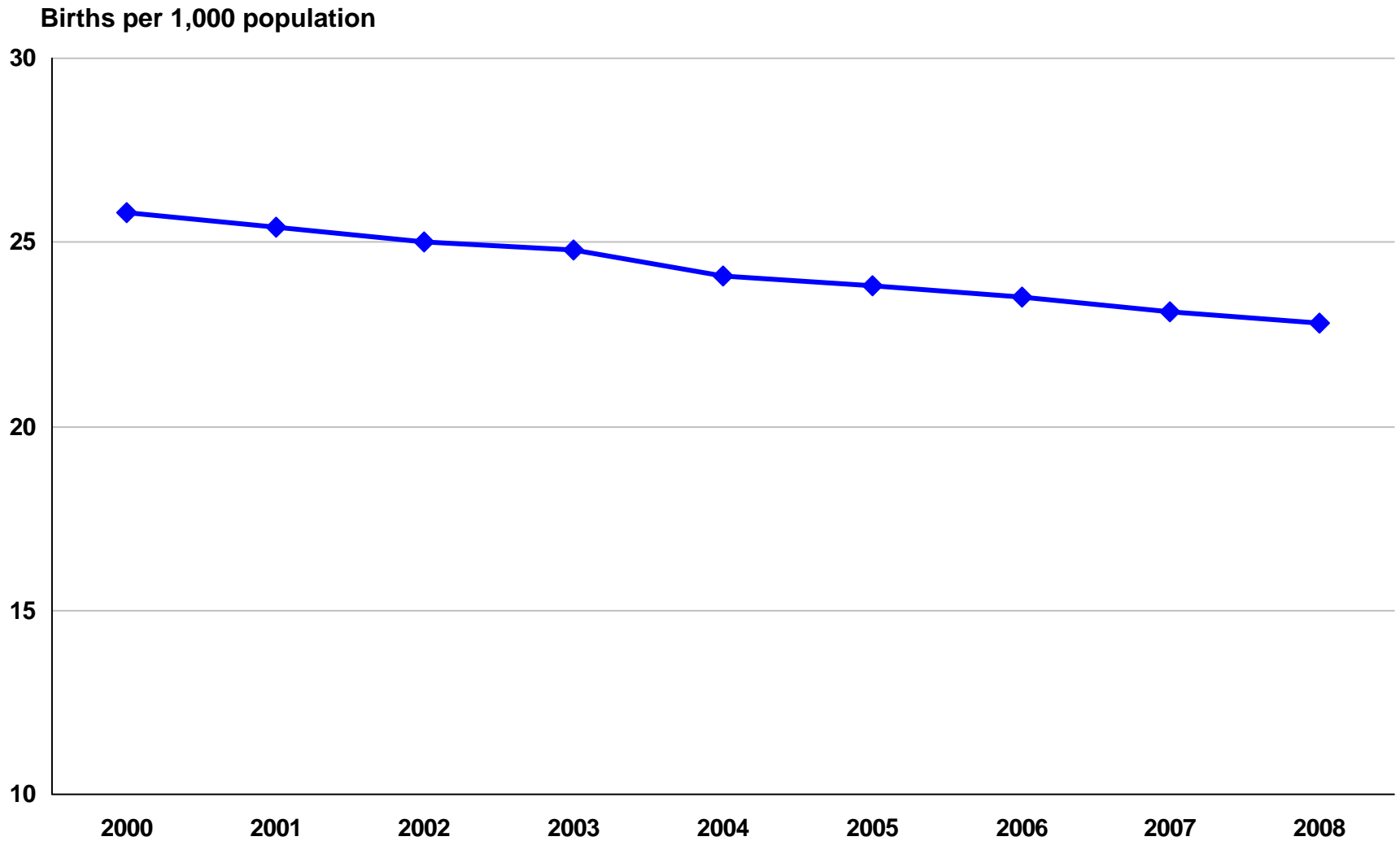
2001 Census of India

Population Pyramid of Uttar Pradesh, 2001 Census, Smoothed



2001 Census of India, smoothed

Crude Birth Rate, India, 2000 - 2008

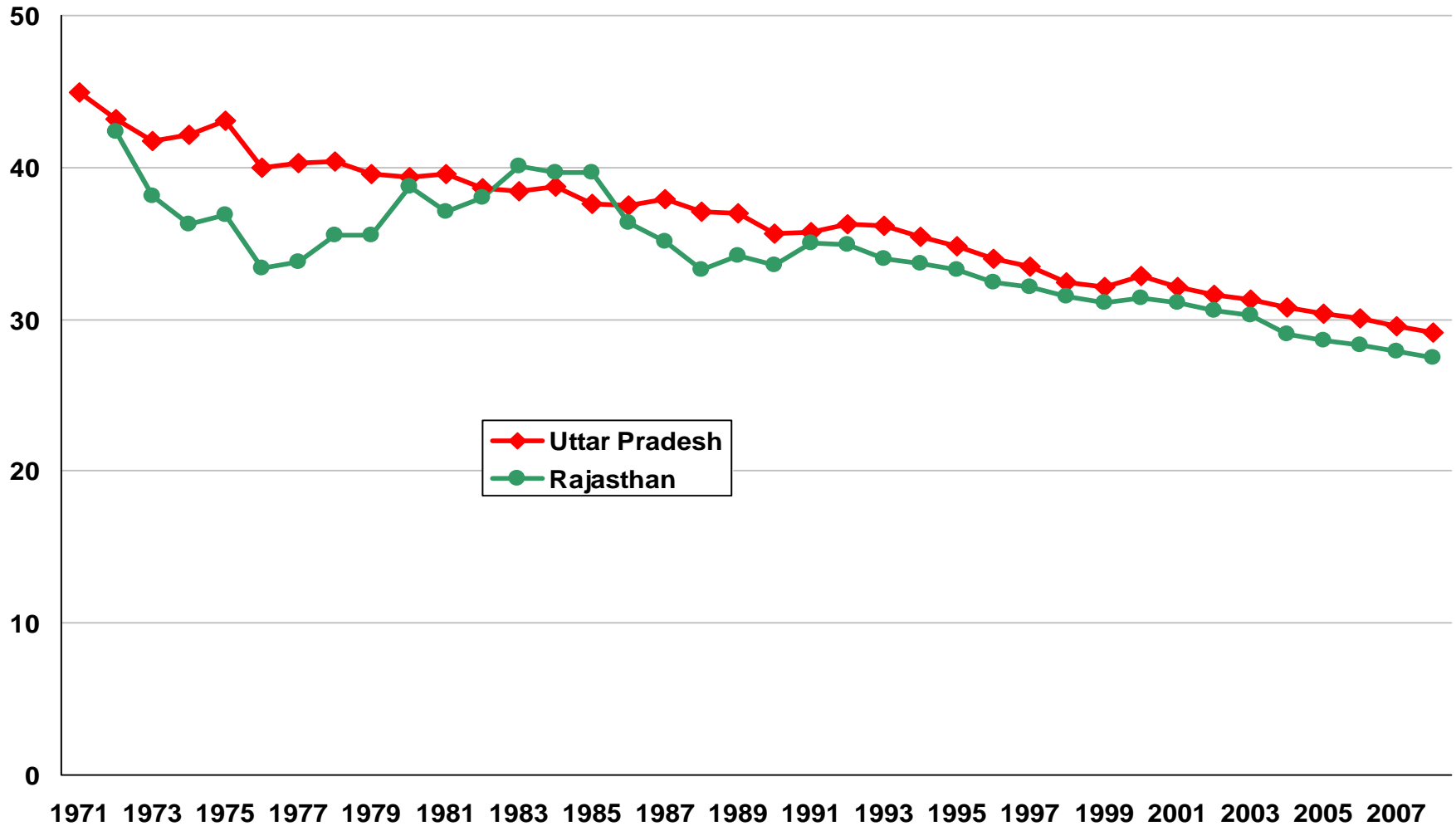


Registrar General of India, Sample Registration System

Have States Shown a Tendency for a Slowdown in TFR Decline As an “Ultimate Level” is Reached?

Crude Birth Rate, Rajasthan and Uttar Pradesh, 1971 - 2008

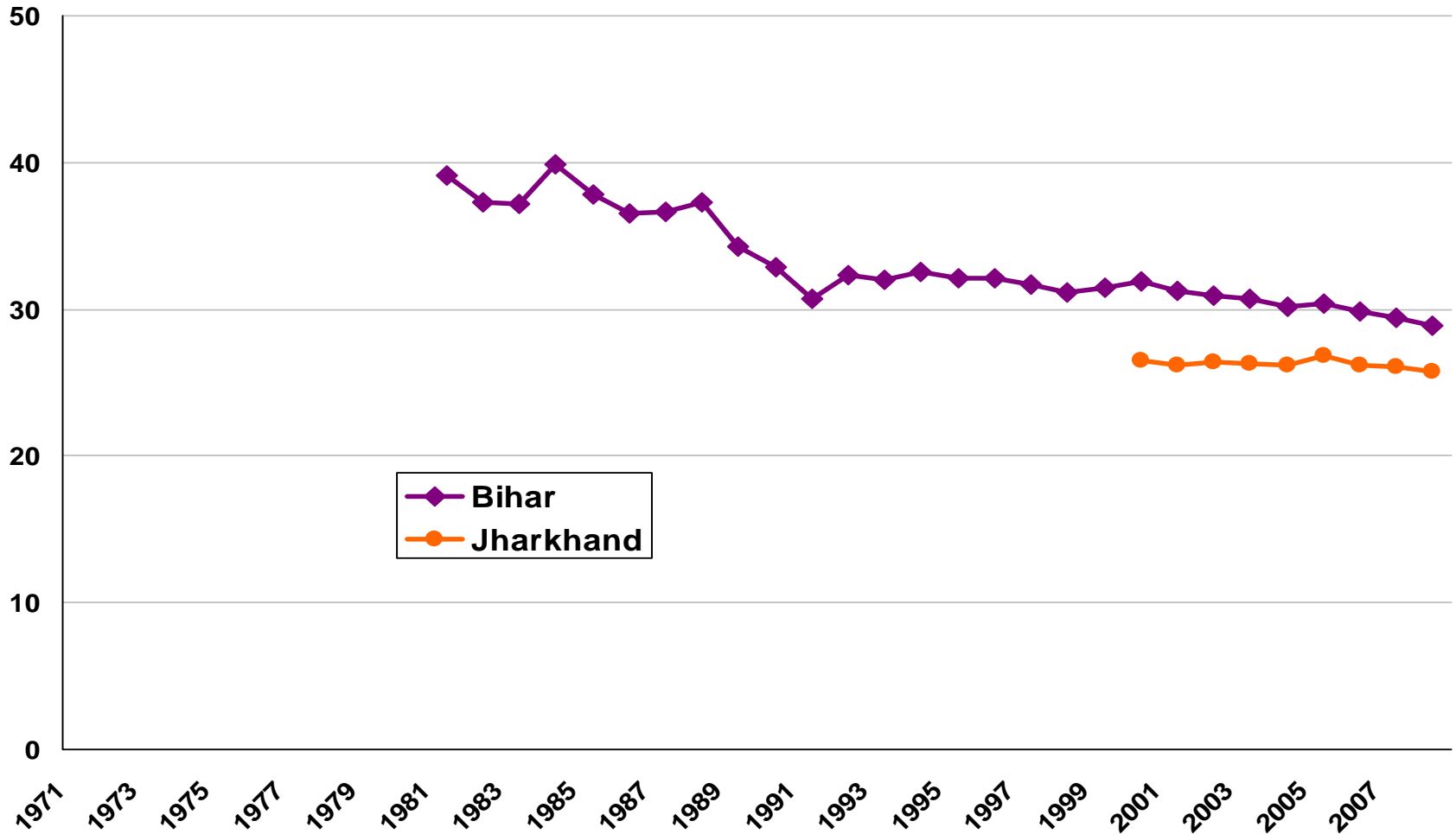
Births per 1,000 population



Sample Registration System

Crude Birth Rate, Bihar and Jharkhand, 1971 - 2008

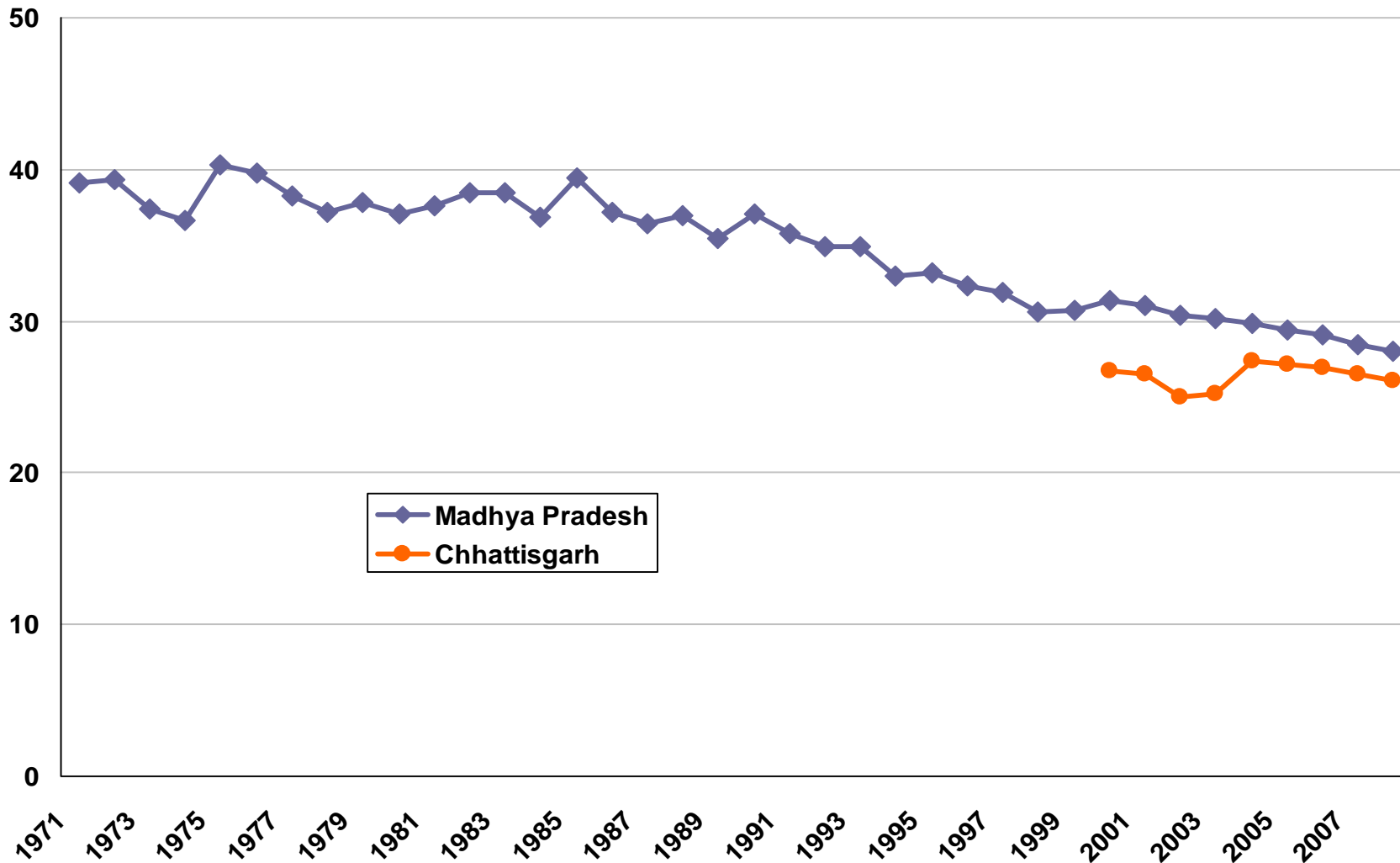
Births per 1,000 population



Sample Registration System

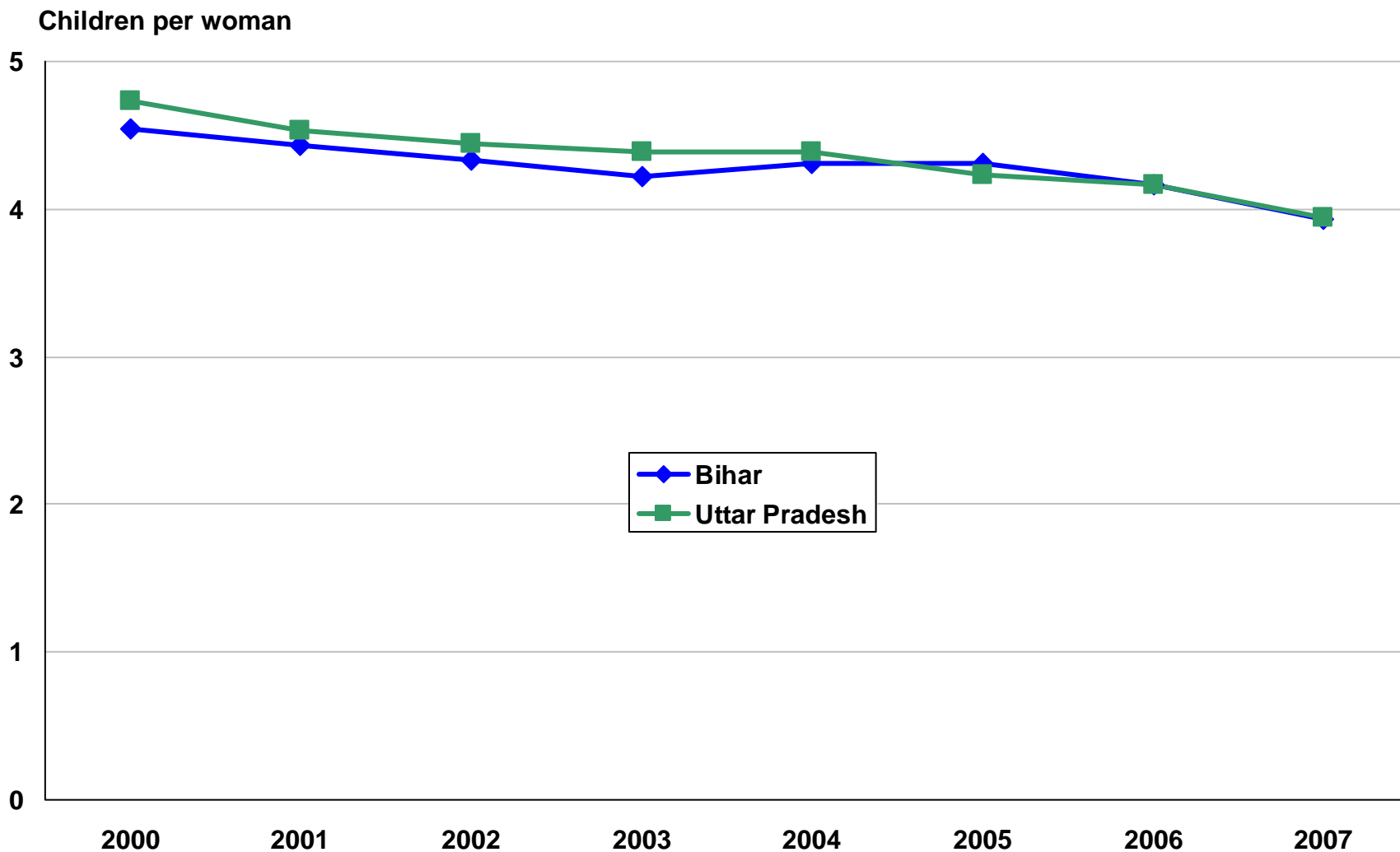
Crude Birth Rate, Madhya Pradesh & Chhattisgarh 1971 - 2008

Births per 1,000 population



Sample Registration System

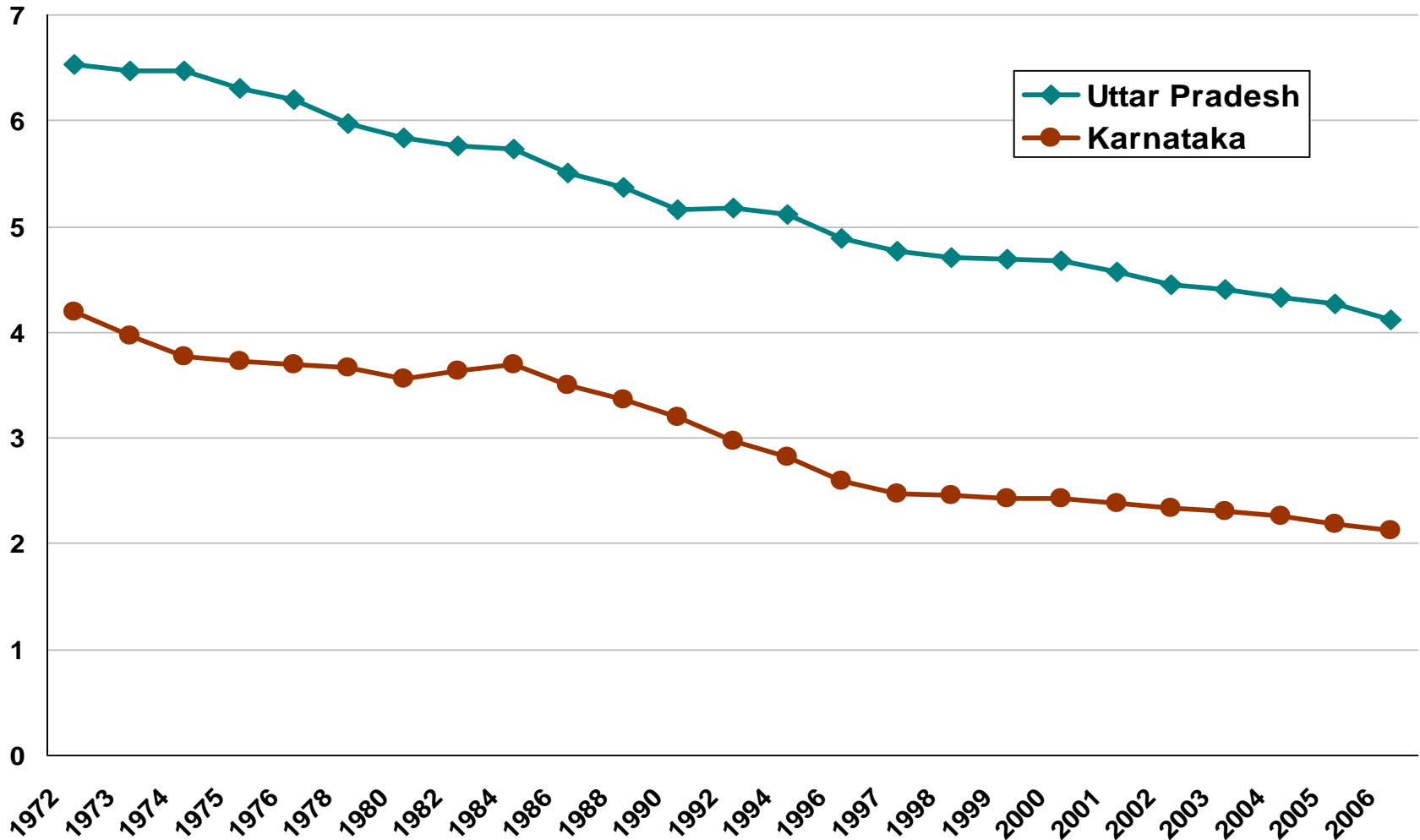
Total Fertility Rate, Bihar and Uttar Pradesh, 2000 -2007



Registrar General of India, Sample Registration System

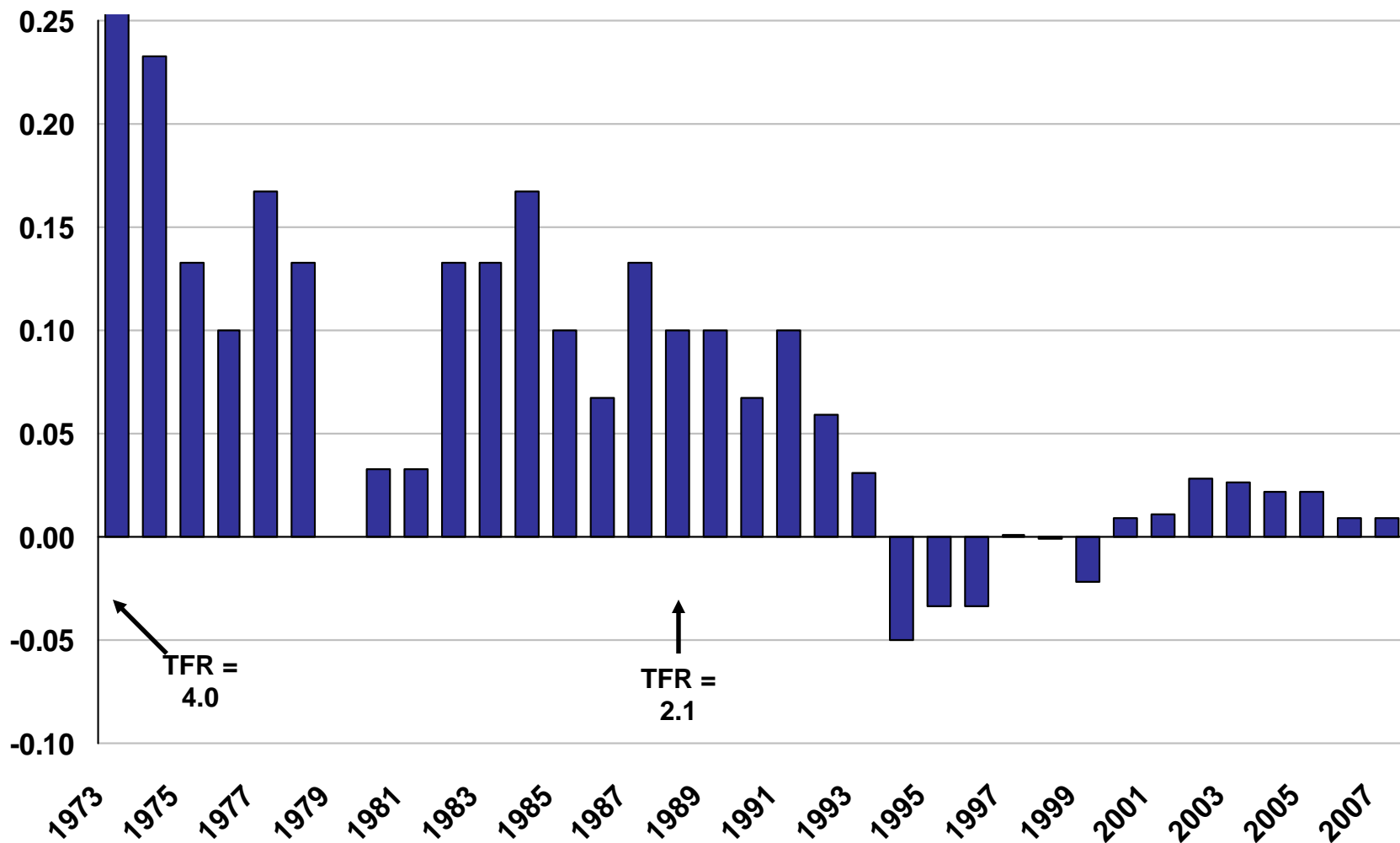
Total Fertility Rate, Karnataka and Uttar Pradesh, Three Year Moving Averages, 1971-1973 to 2005-2007

Children per woman



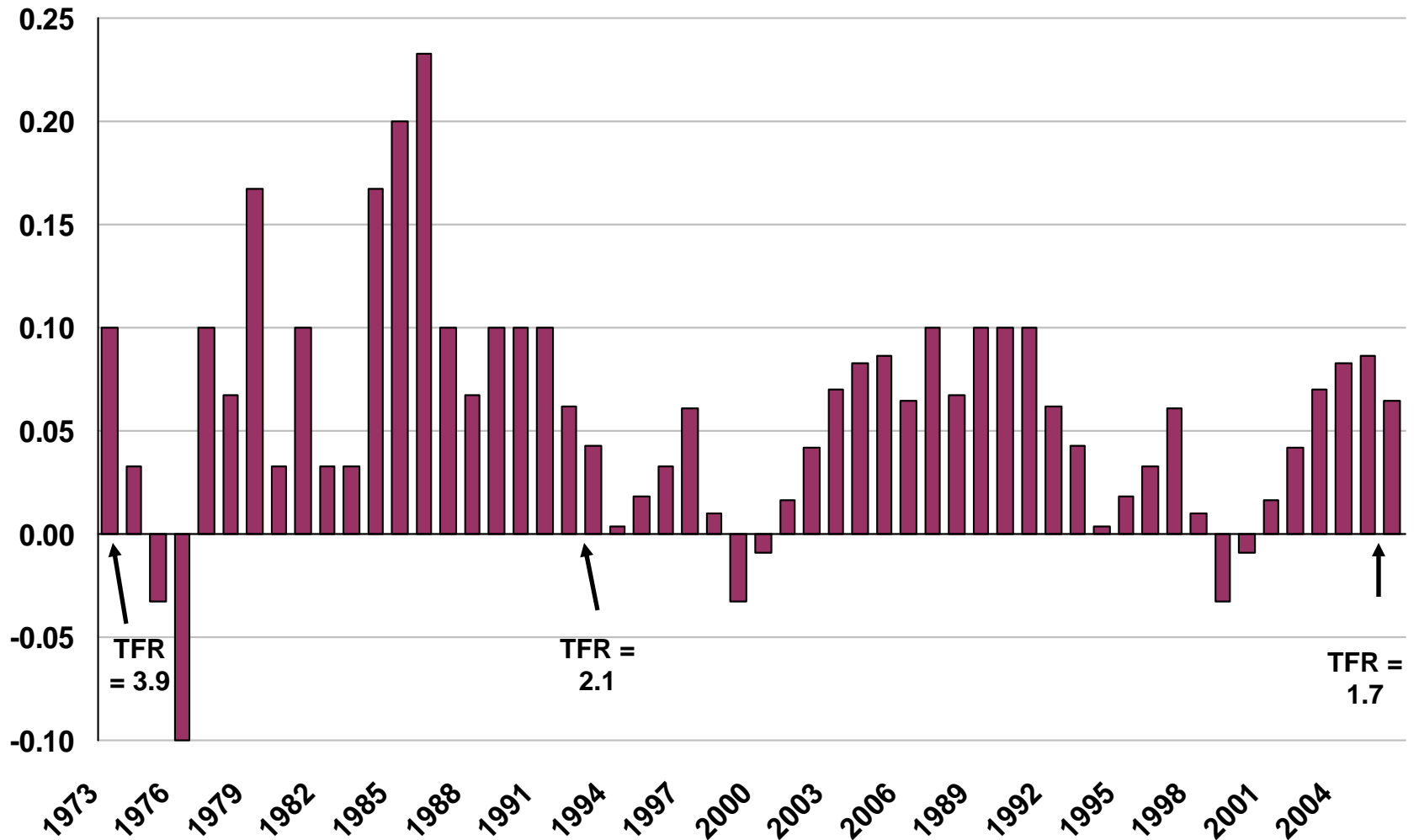
Sample Registration System

Annual TFR Decrease, Kerala, Based on 3 Year Moving Average 1972-1974 to 2005-2007



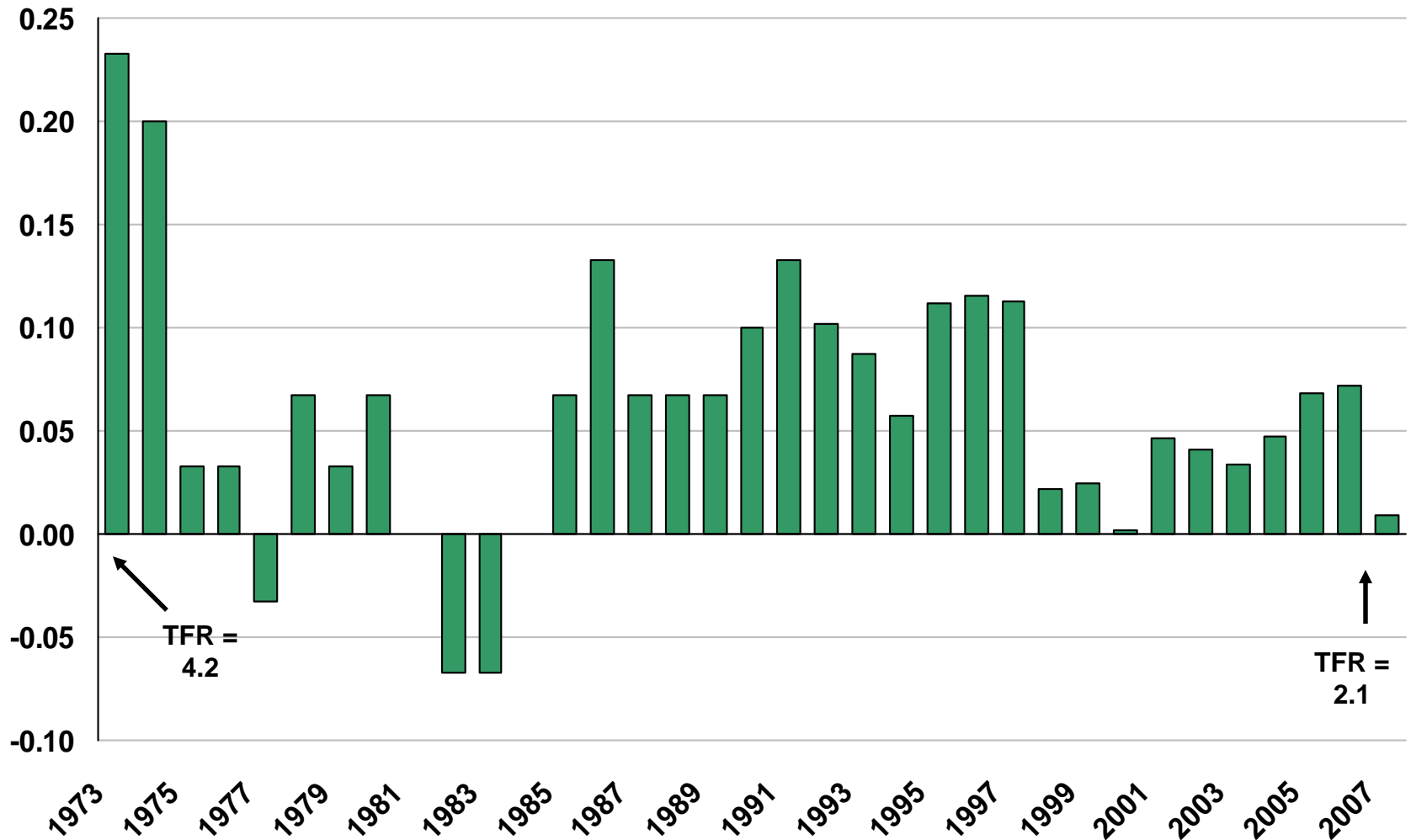
Sample Registration System

Annual TFR Decrease, Tamil Nadu, Based on 3 Year Moving Average 1972-1974 to 2005-2007



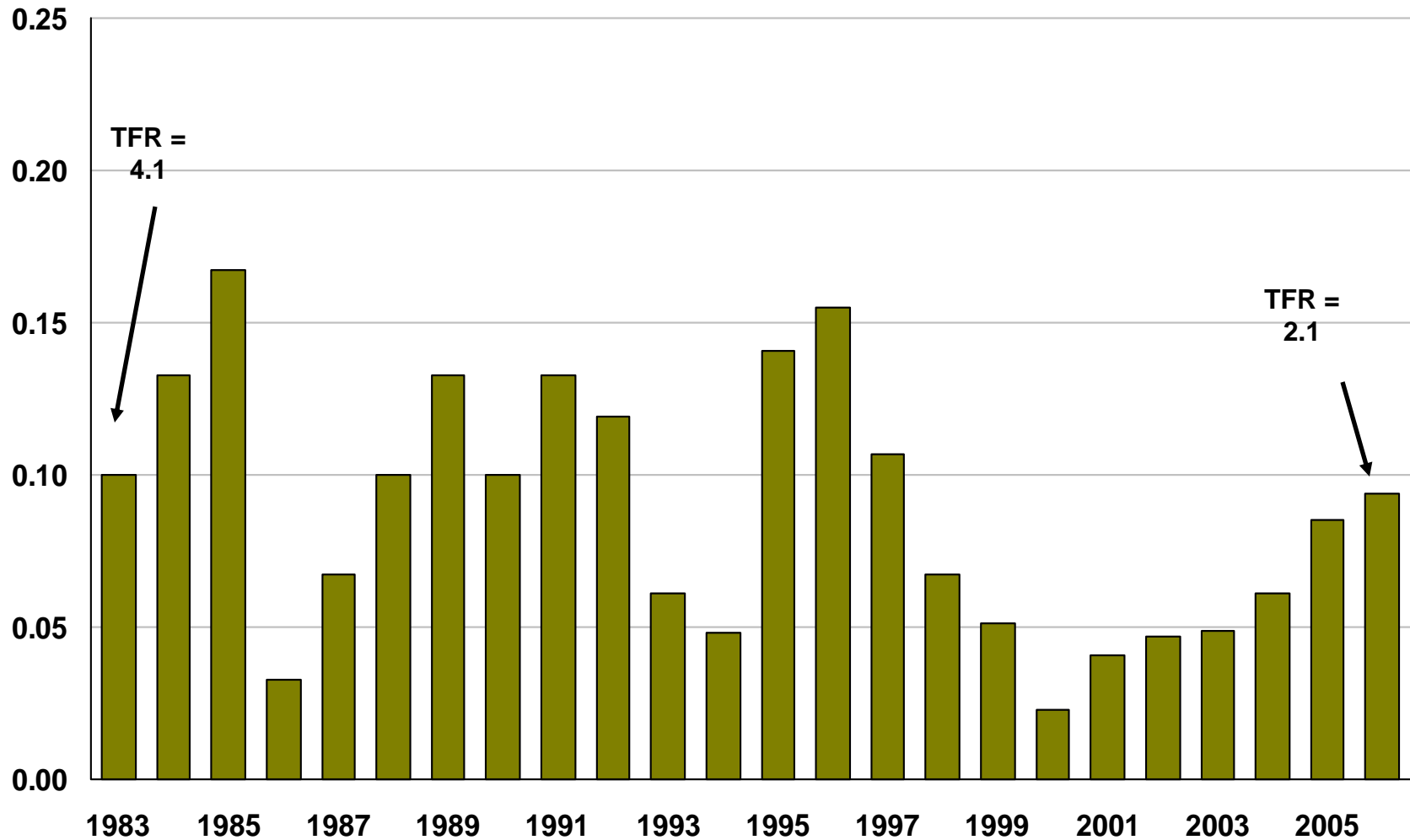
Sample Registration System

Annual TFR Decrease, Karnataka, Based on 3 Year Moving Average 1972-1974 to 2005-2007



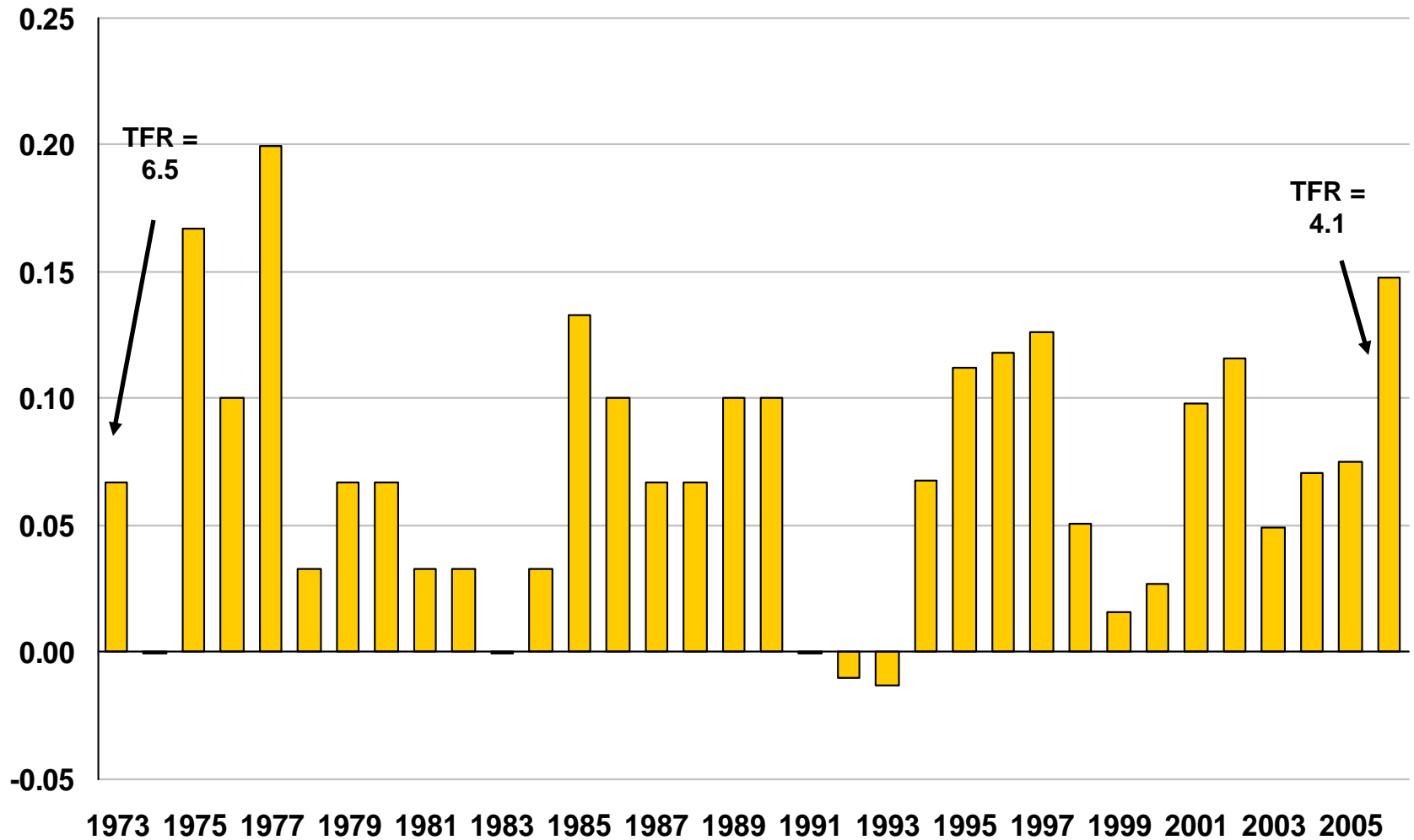
Sample Registration System

Annual TFR Decrease, West Bengal, Based on 3 Year Moving Average, 1982-1984 to 2005-2007



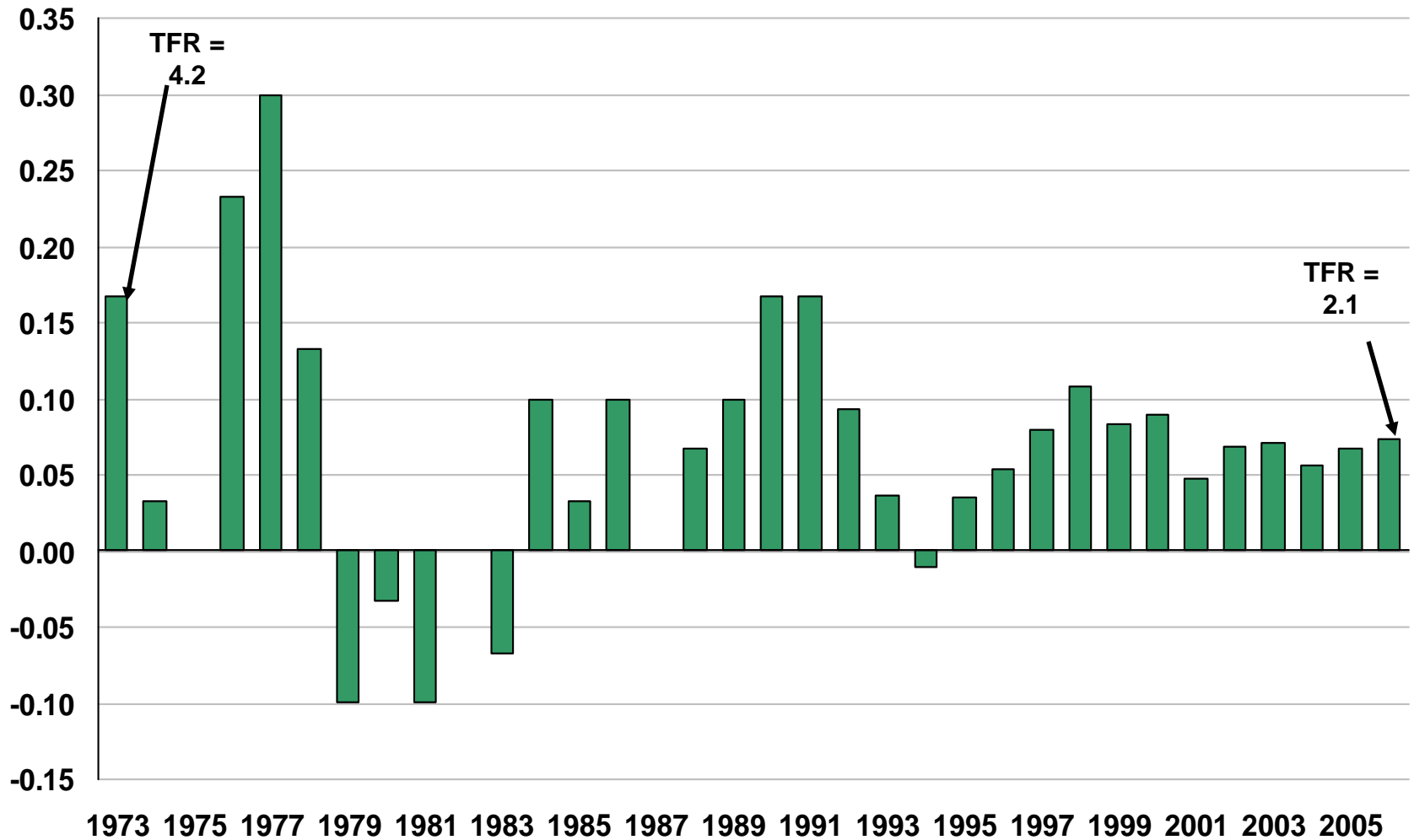
Sample Registration System

Annual TFR Decrease, Uttar Pradesh, Based on 3 Year Moving Average, 1972-1974 to 2005-2007



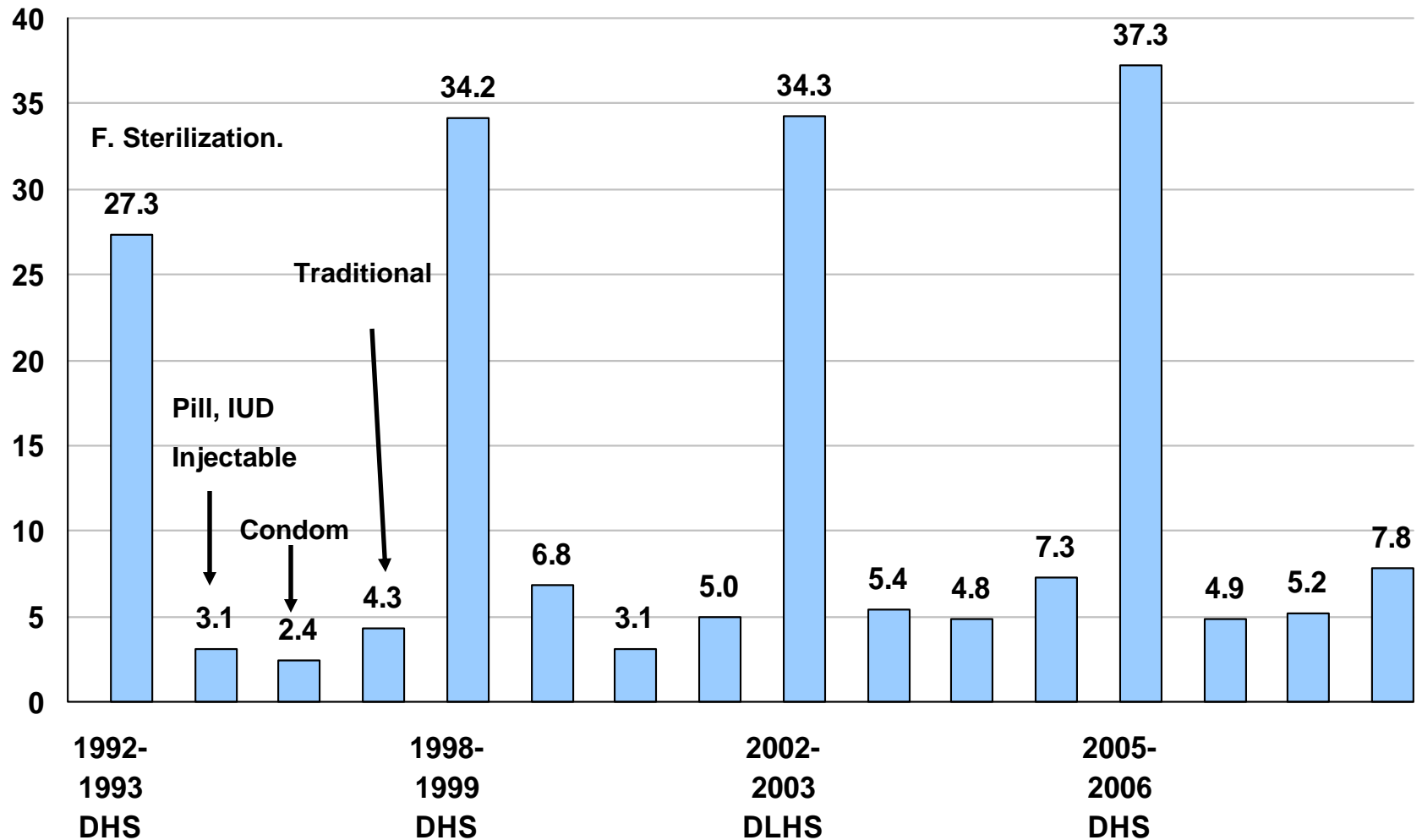
Sample Registration System

Annual TFR Decrease, Maharashtra, Based on 3 Year Moving Average, 1972-1974 to 2005-2007

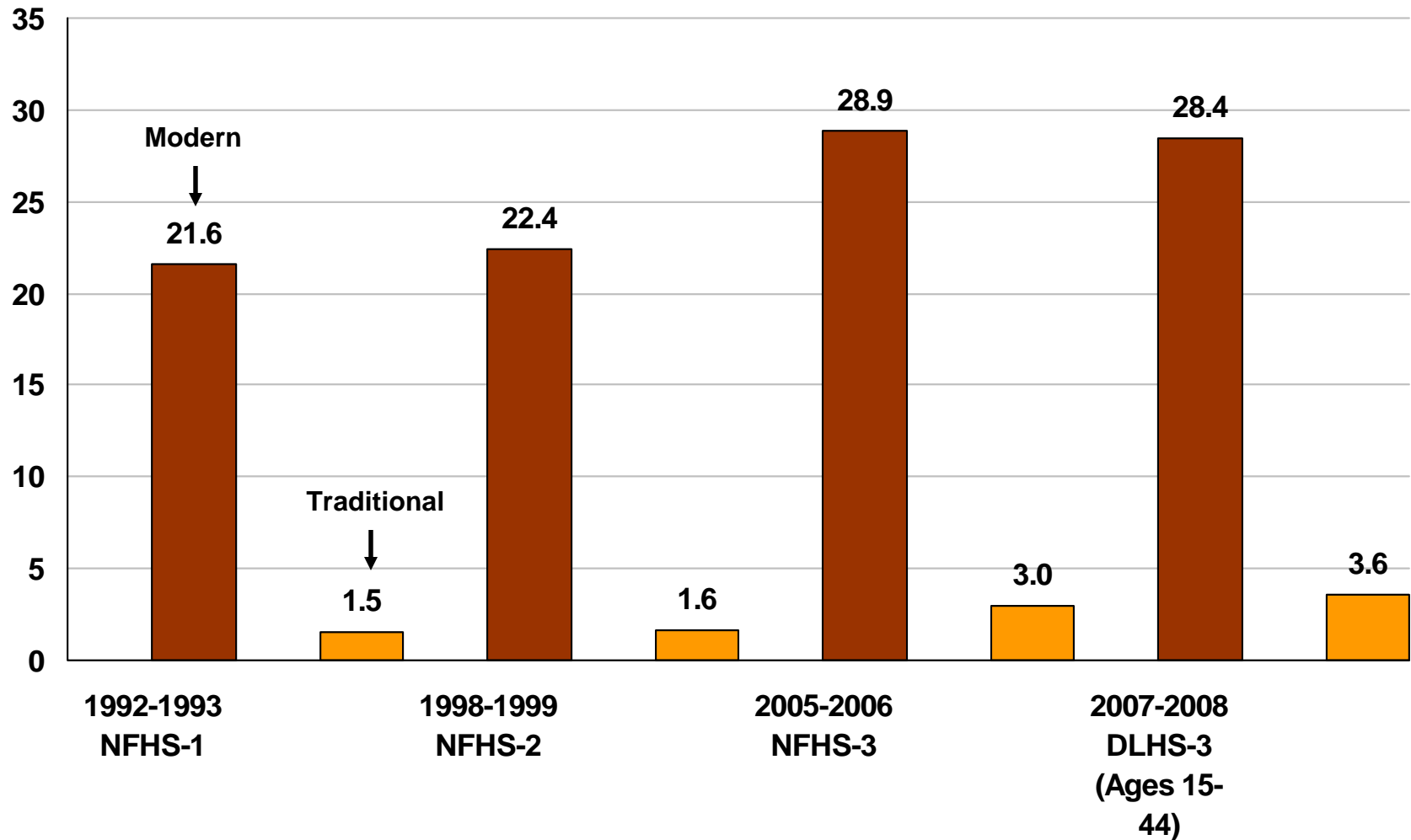


Sample Registration System

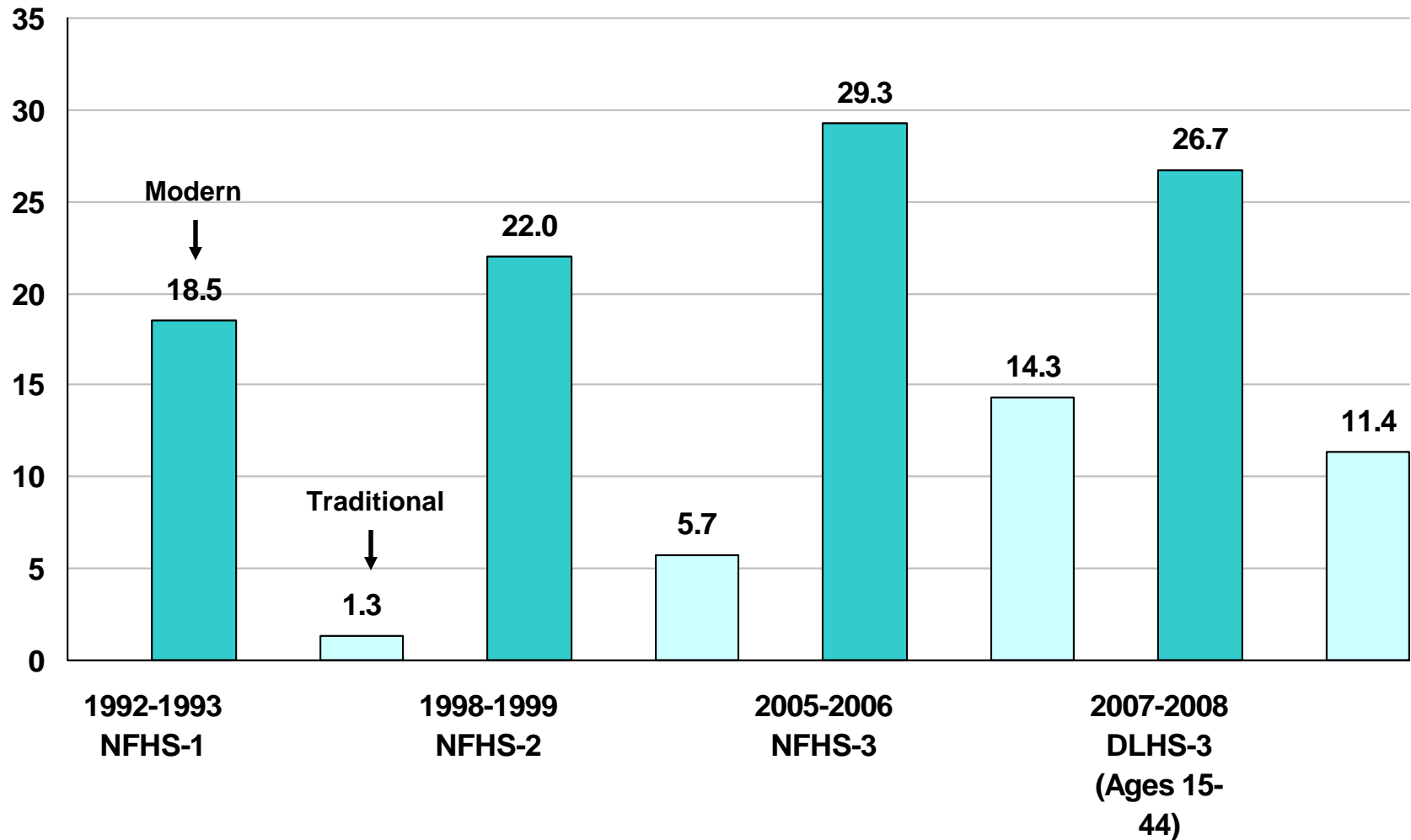
Contraceptive Use by Currently Married Women, Ages 15-49 Modern and Traditional Methods, India, Four Surveys



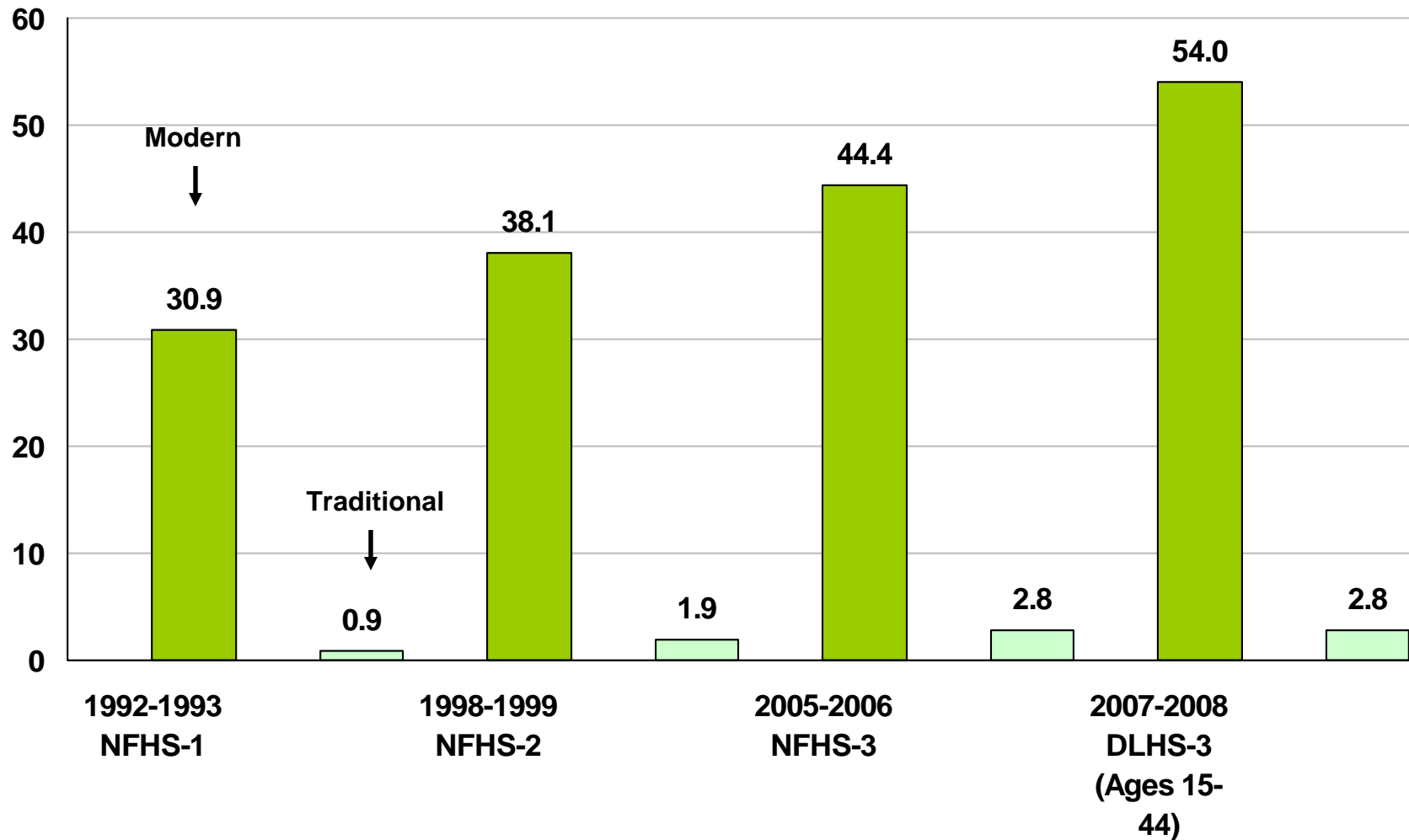
Contraceptive Use by Currently Married Women, Ages 15-49 Modern and Traditional Methods, Bihar, Four Surveys



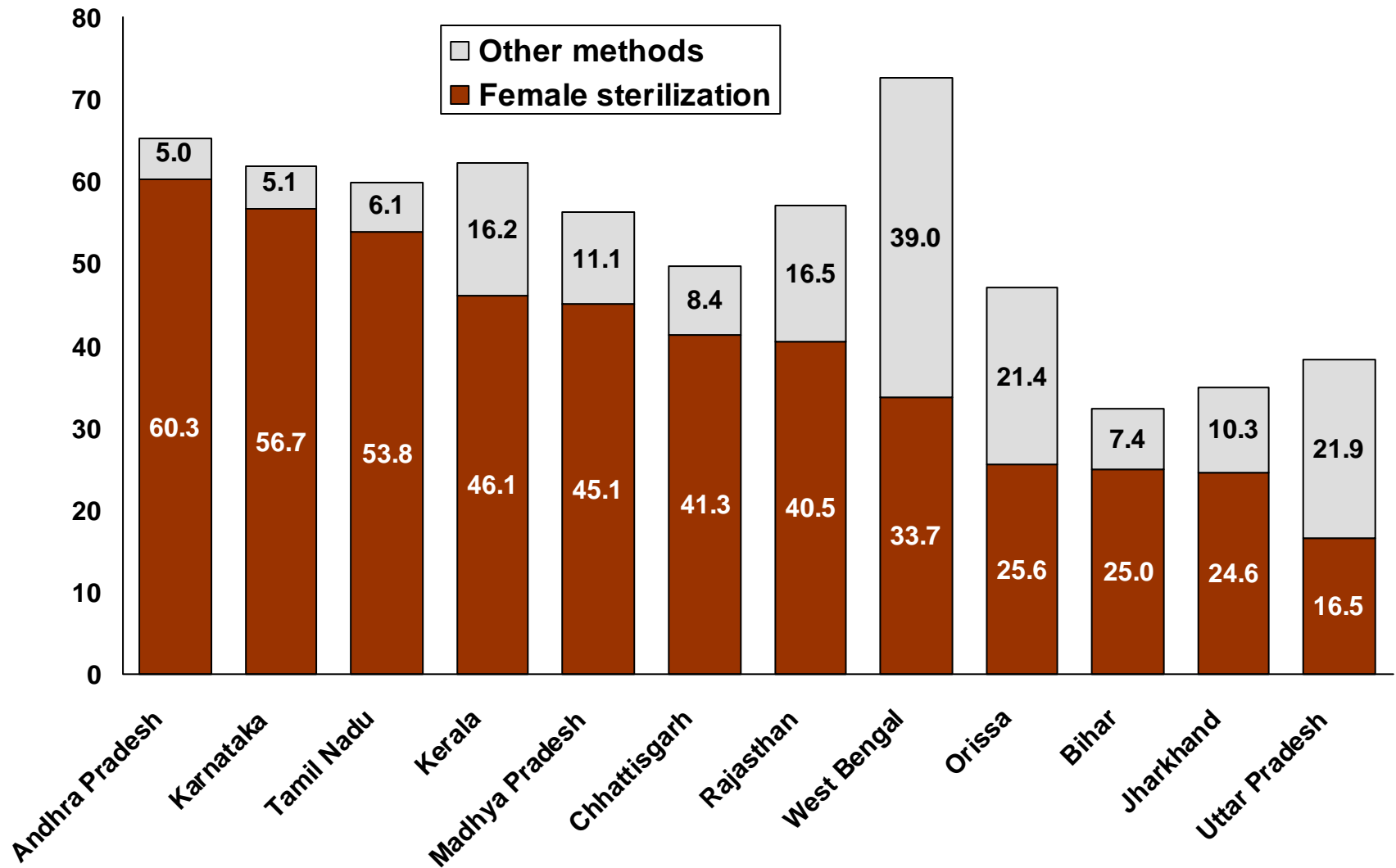
Contraceptive Use by Currently Married Women, Ages 15-49 Modern and Traditional Methods, Uttar Pradesh, Four Surveys



Contraceptive Use by Currently Married Women, Ages 15-49 Modern and Traditional Methods, Rajasthan, Four Surveys

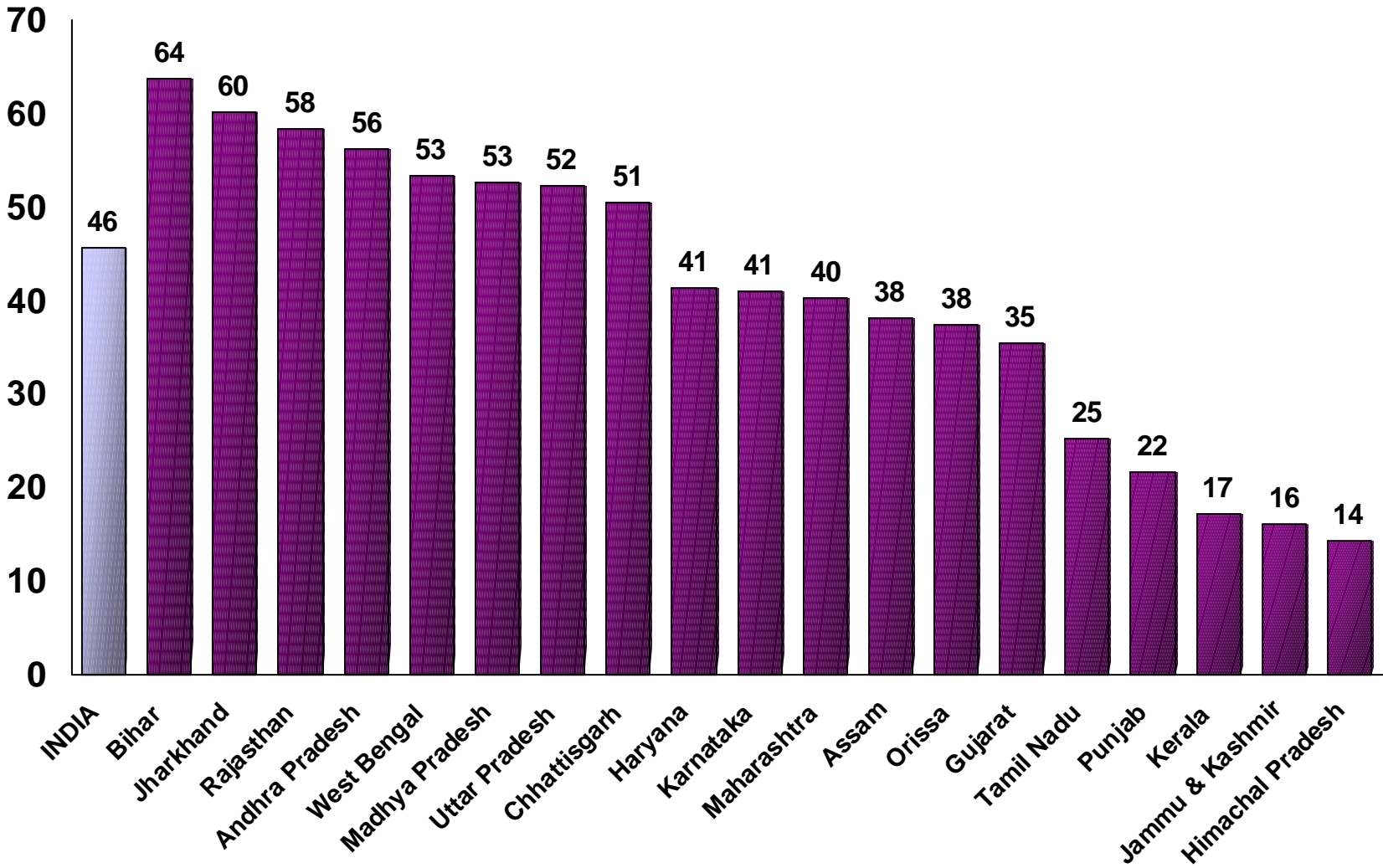


Percent of Currently Married Women, Ages 15-44, Using Female Sterilization and Using Other Methods, Selected States of India, 2007-2008



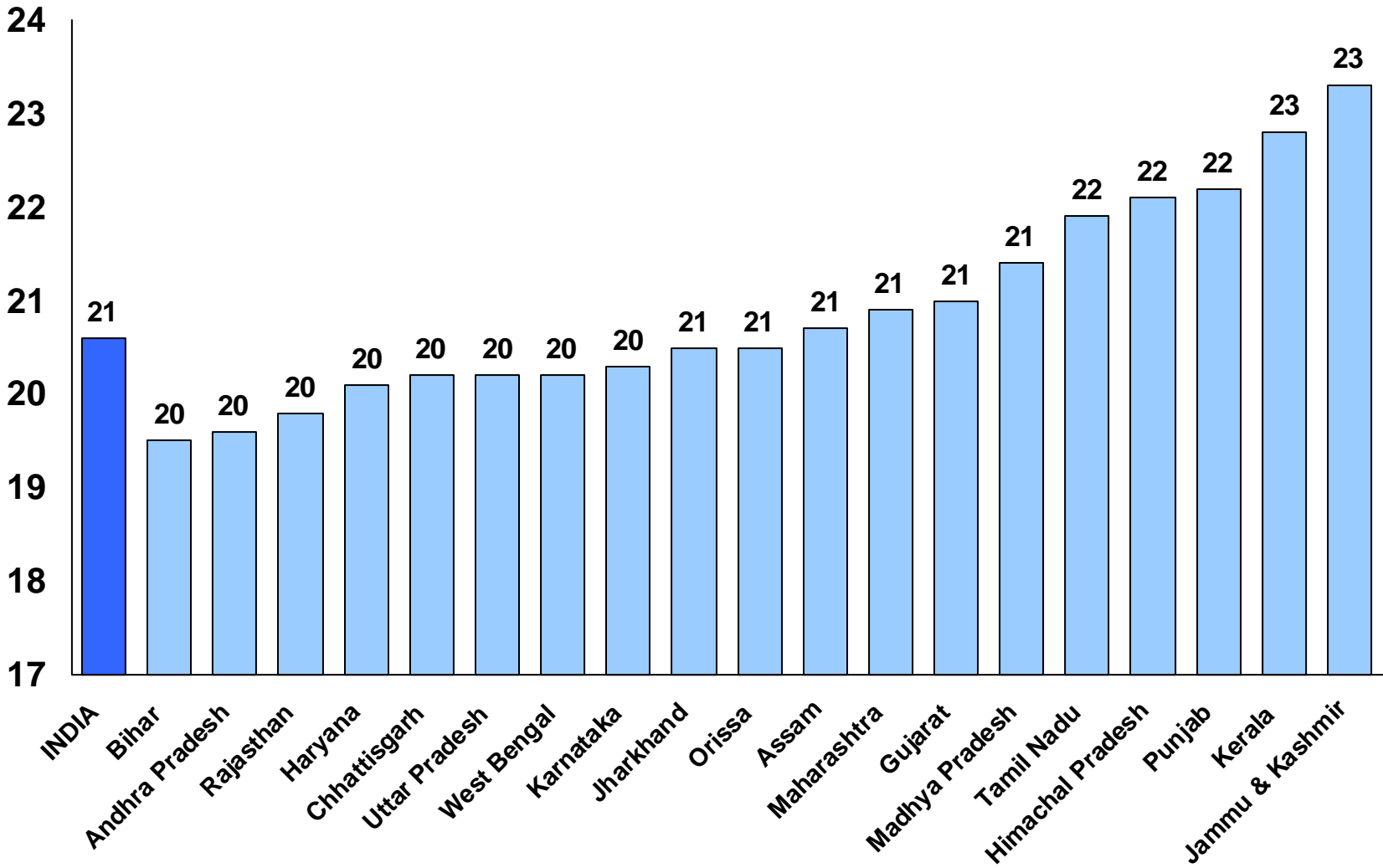
DLHS-3

Percent of Women, Ages 18-29, Married by Age 18, Major States of India, 2005-2006



NFHS-3

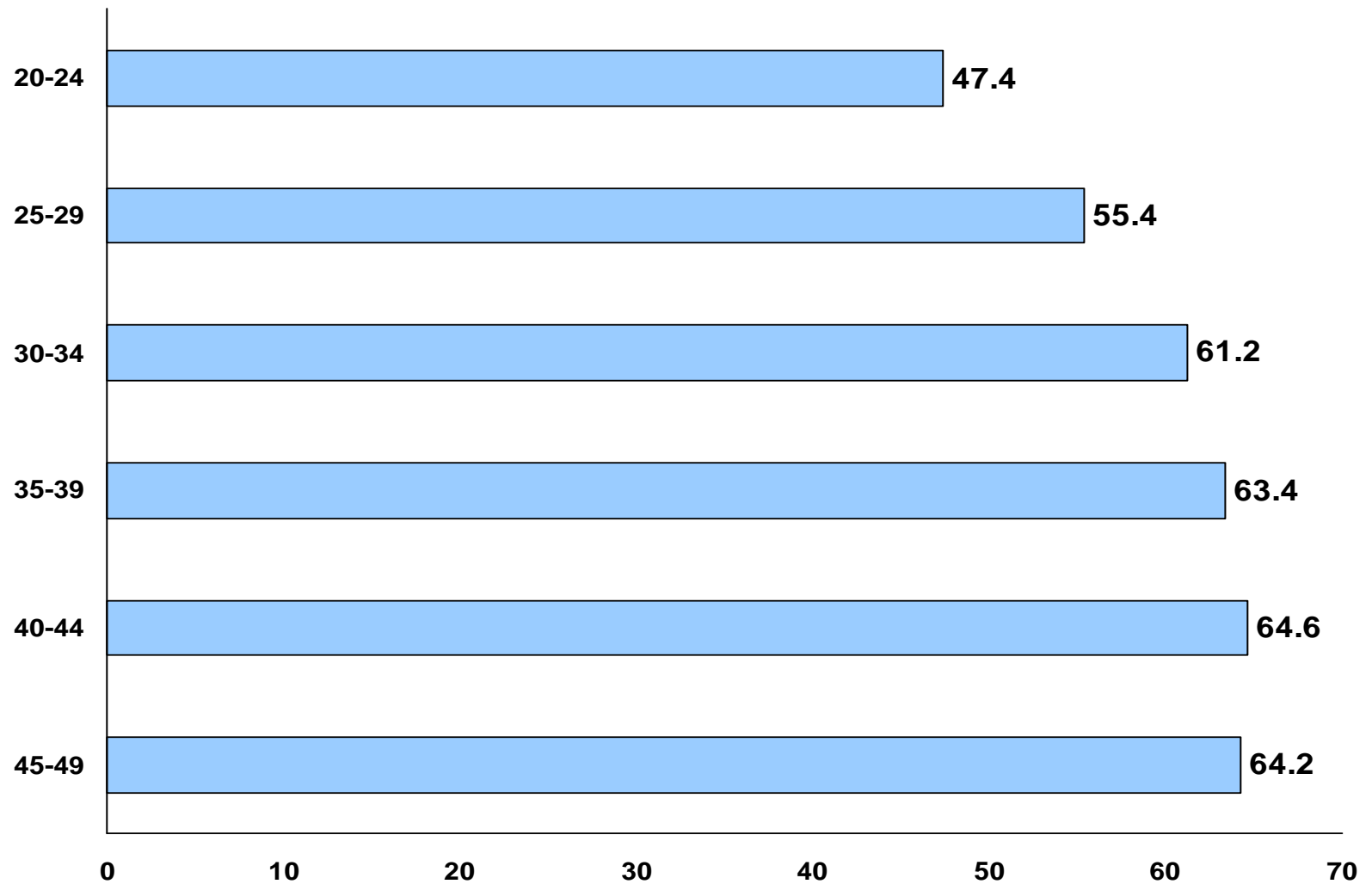
Median Age of Women at Effective Marriage, All Ages, India and Major States, 2007



Sample Registration System

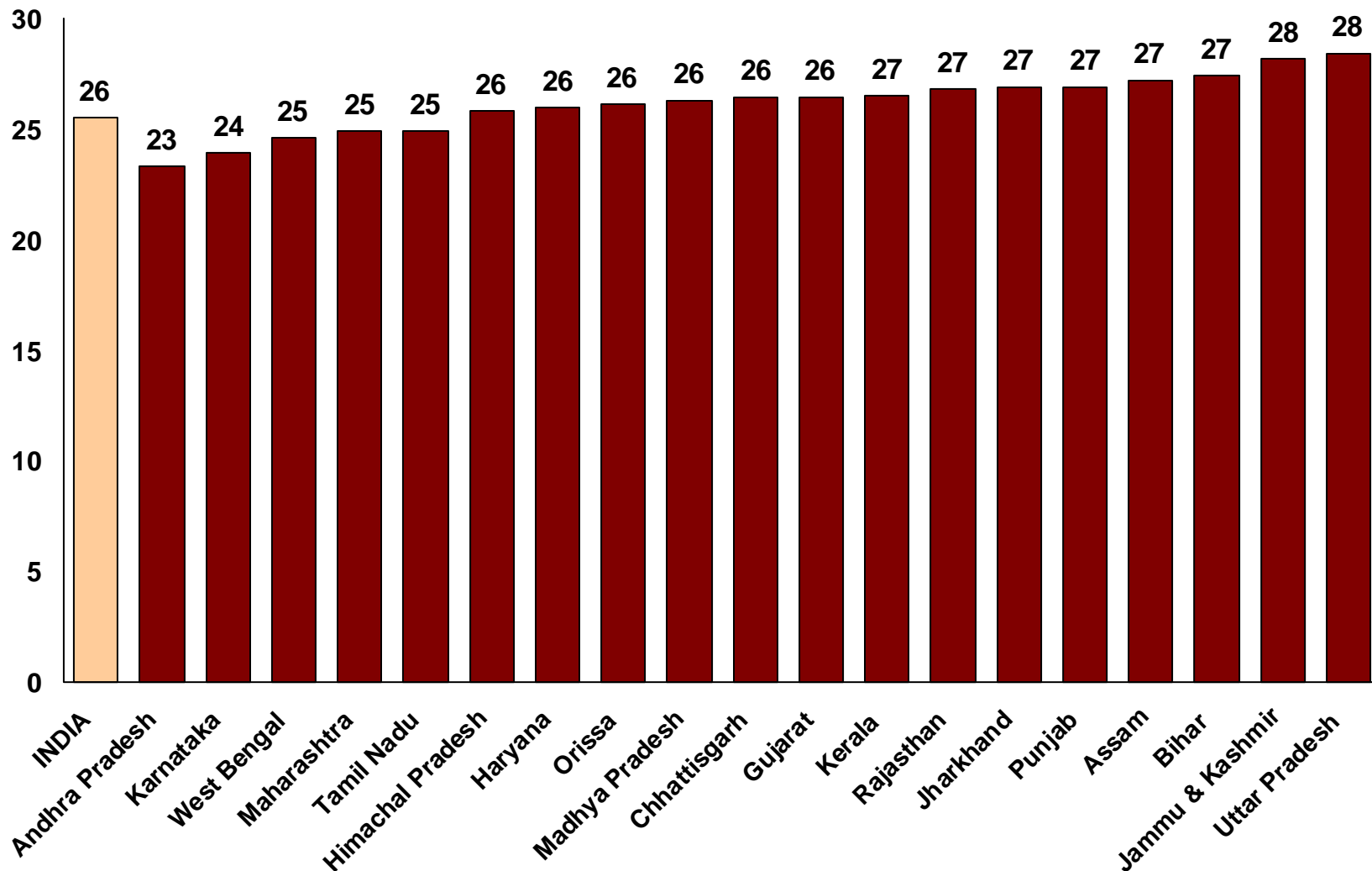
NFHS-3

Percentage of Women, Ages 20-49, Married Before Age 18, by Age, India 2005-2006



NFHS - 3

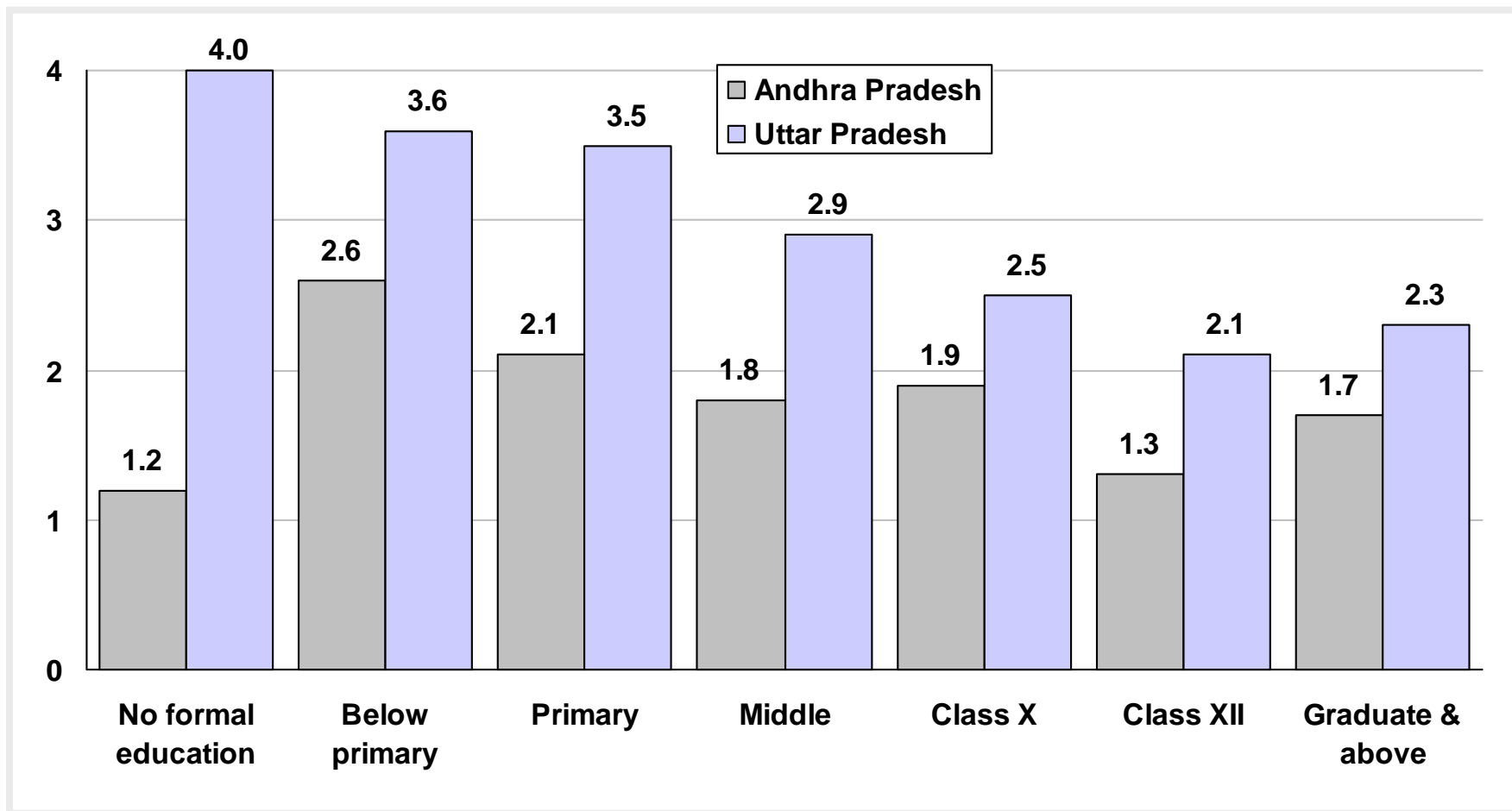
Median Age at Sterilization of Women, India and Major States, 2005-2006



NFHS-3

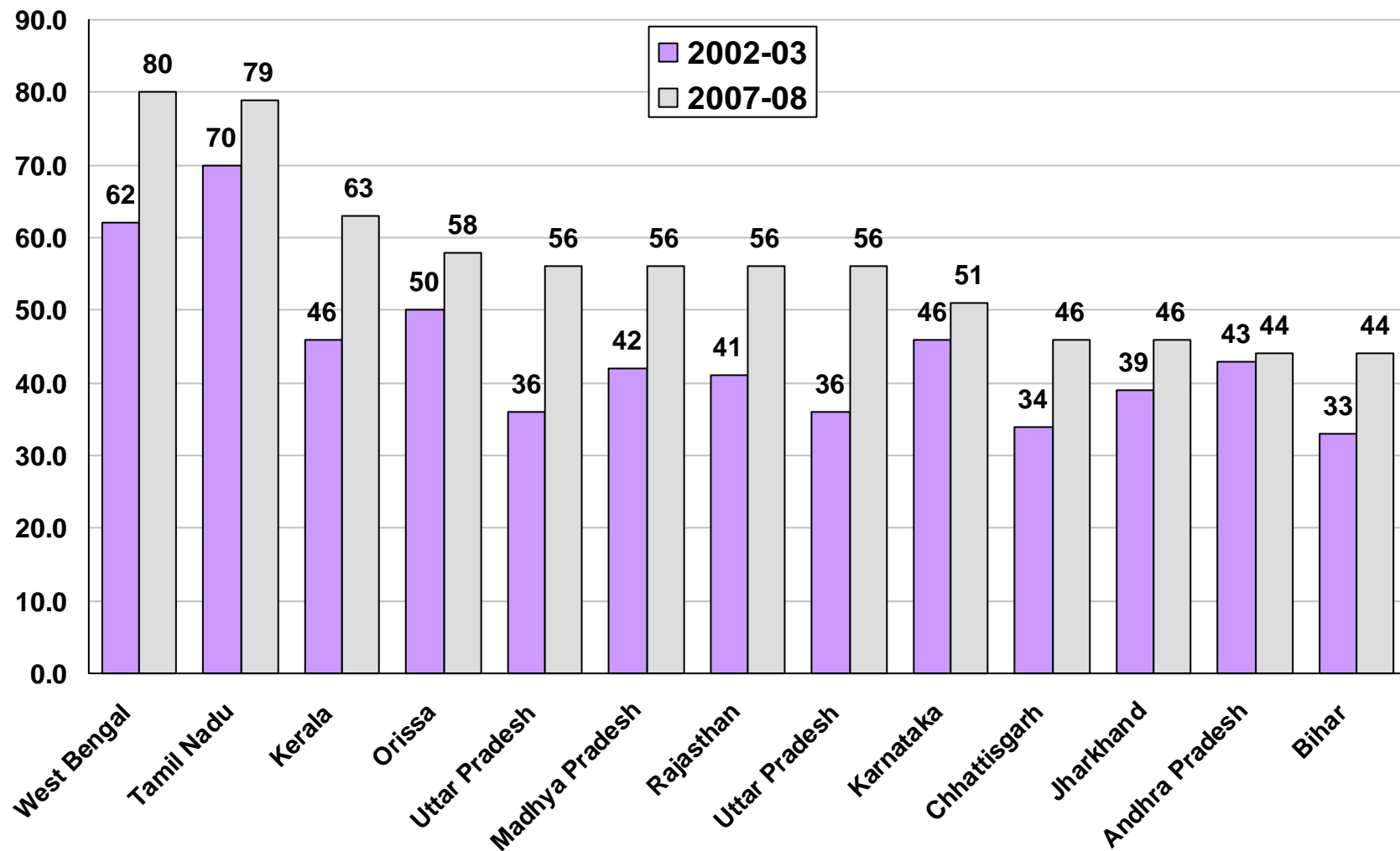
Total Fertility Rate by Level of Education of Women Ages 15-49, 2007

Per cent



Sample Registration System

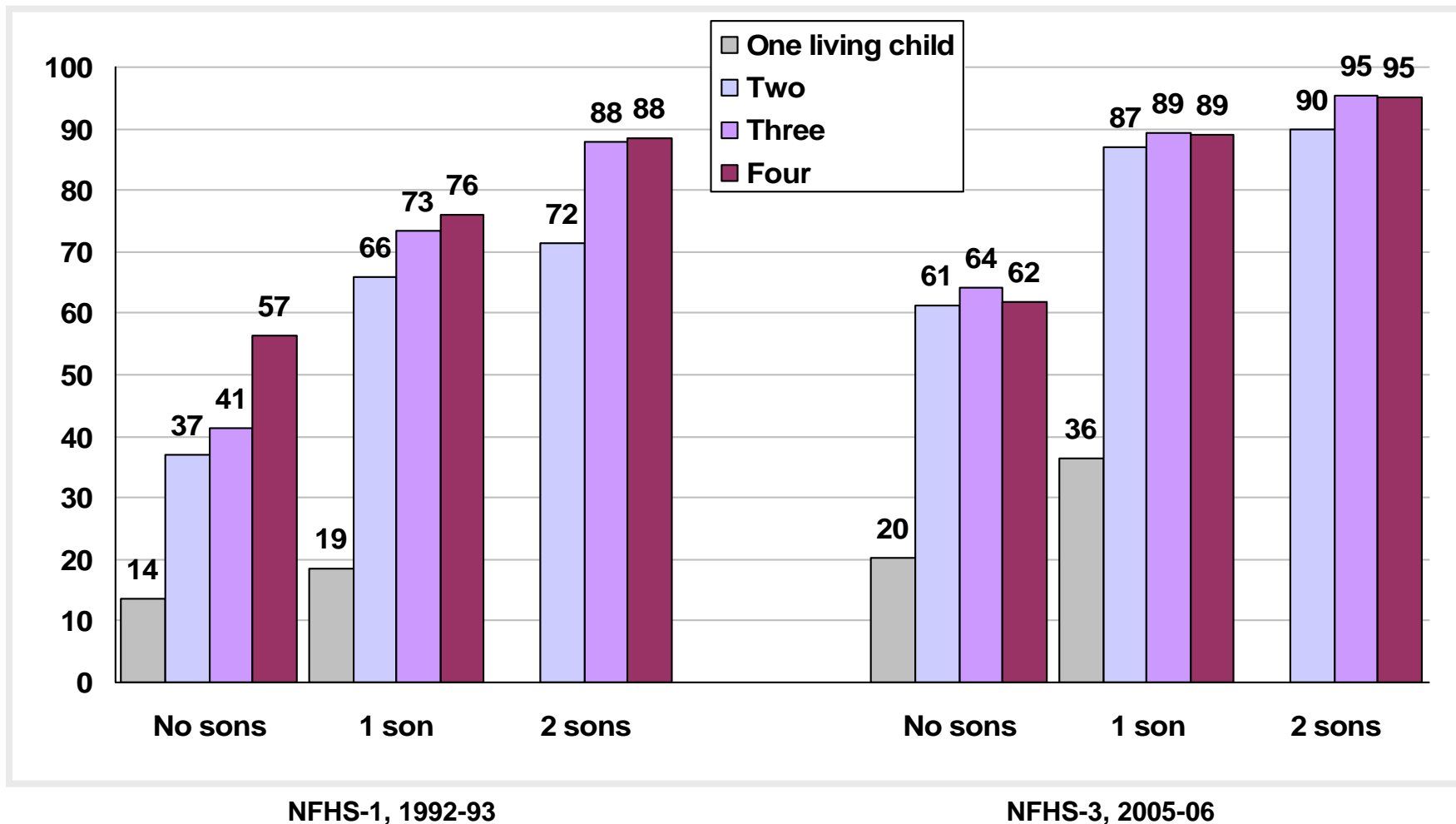
Percent of Married Women, Ages 15-49, with Two Children Who Want No More, District Level Health Surveys, Selected States of India



DLHS-1 and -3

Currently Married Women, Ages 15-49, Who Want No More Children by Number of Living Children and Number of Living Sons, India, NFHS-1 and NFHS-3

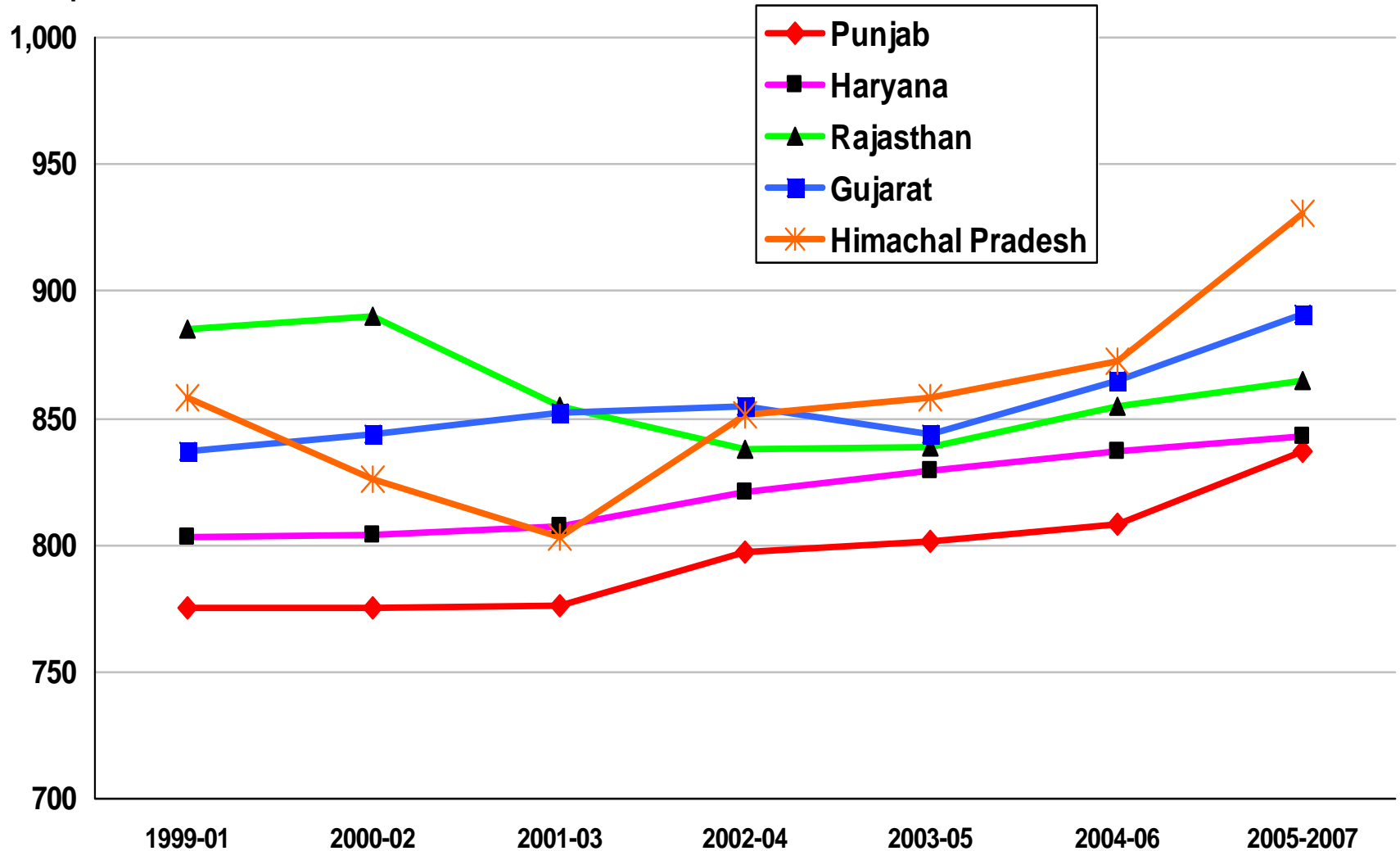
Per cent



Demographic and Health Surveys

Sex Ratio at Birth in Poorest-performing States of India, 1999-2001 to 2005-2007

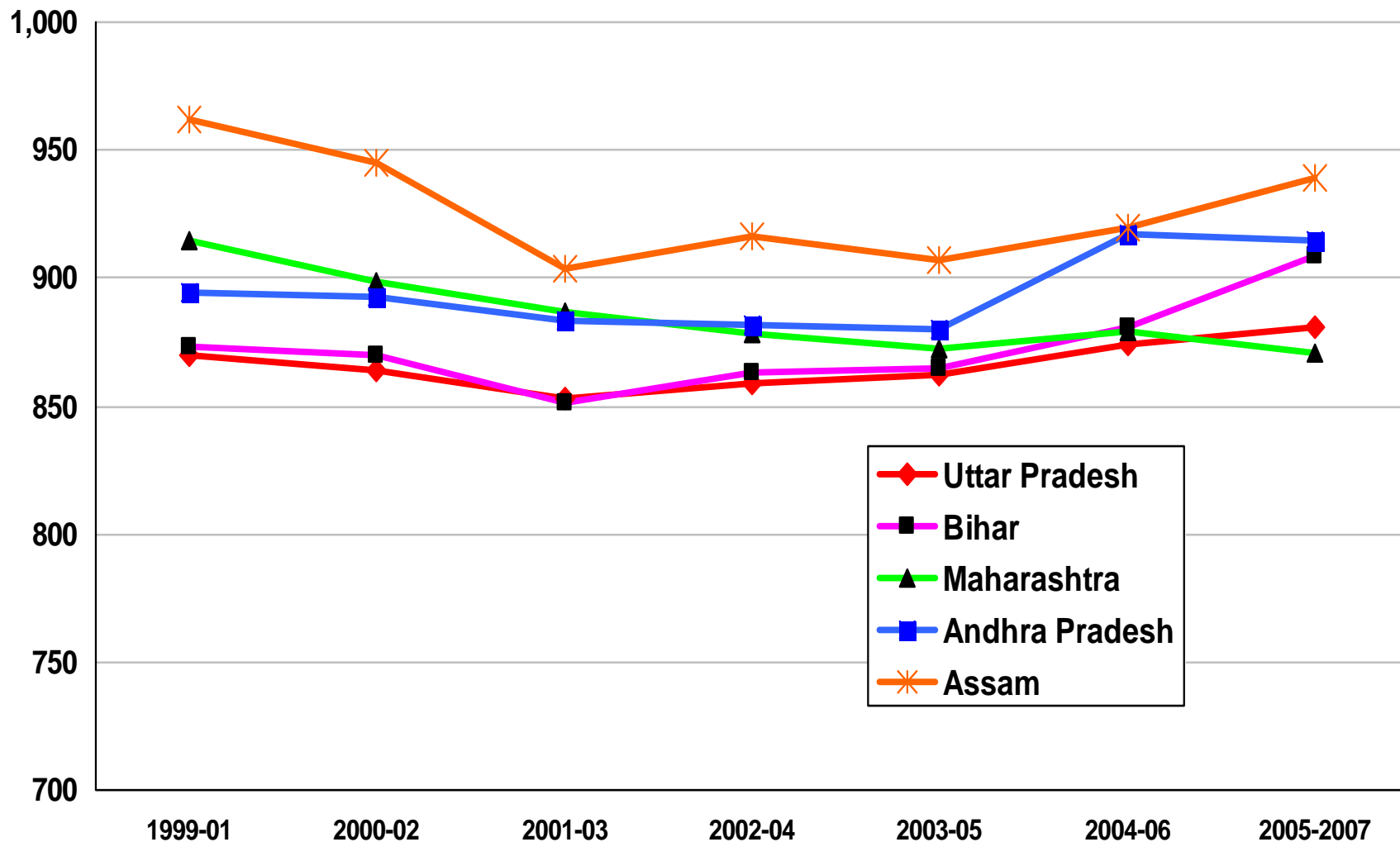
Children per woman



Registrar General of India, Sample Registration System

Sex Ratio at Birth in Medium-performing States of India, 1999-2001 to 2005-2007

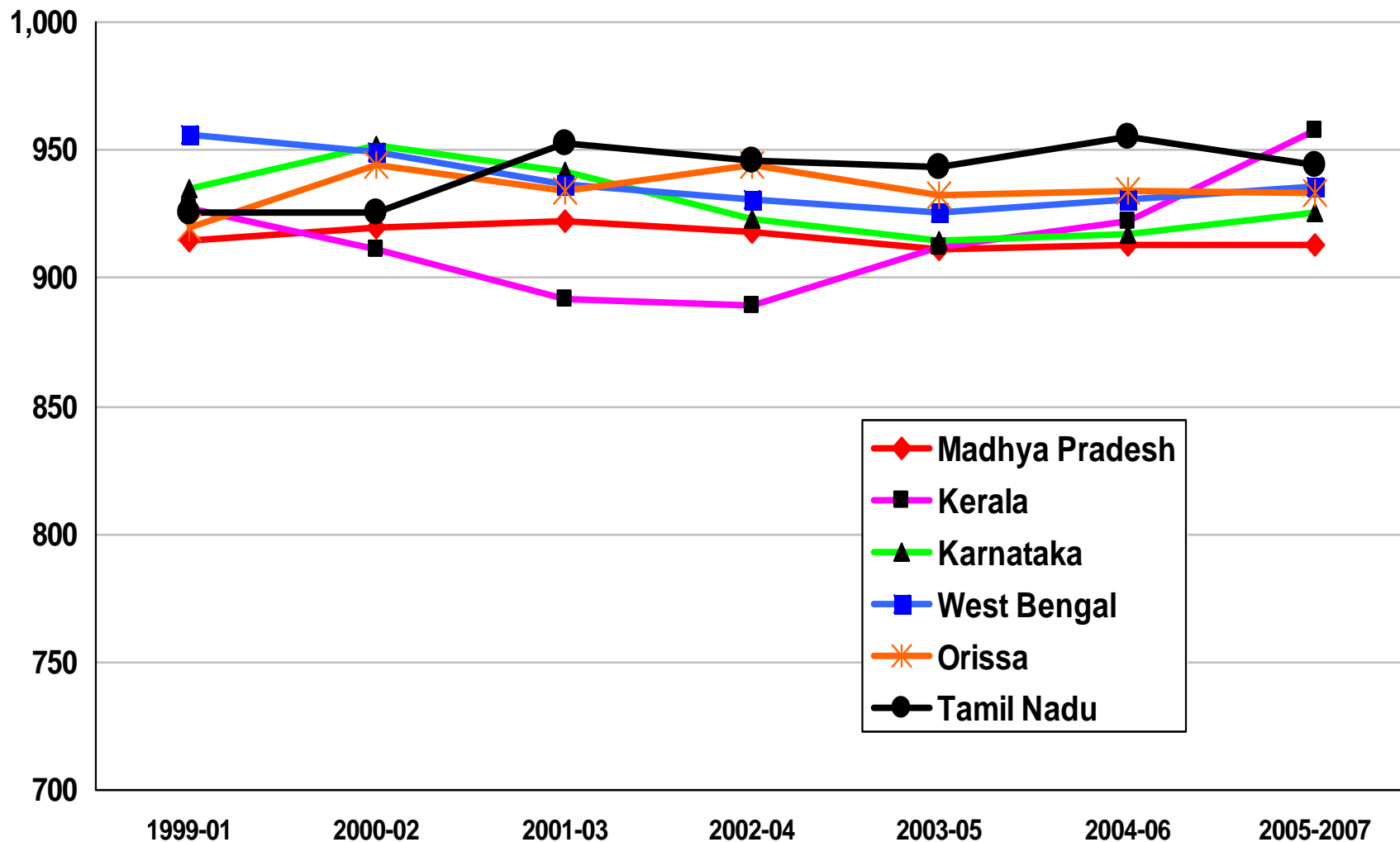
Children per woman



Registrar General of India, Sample Registration System

Sex Ratio at Birth in Best-performing States of India, 1999-2001 to 2005-2007

Children per woman



Registrar General of India, Sample Registration System

Some Observations and Questions

- SRS birth rates are coming down.
- While birth rates are coming down, many large states are still in the middle of their fertility transition.
- Is the glass half empty or half full? Is a family size of two children “in the cards” for the EAG states and other higher-fertility states?
- If sex-selective abortion is successfully prohibited is a two child family likely?
- Cultural and societal values vary greatly across the country.
- What may hold true in one state may not in another.

Some Observations and Questions - con't

- The effectiveness of grass-roots programs such as NRHM is highly dependent on the cooperation of state governments.
- Will the very low TFRs observed in the south rise as affluence rises?
- Should subnational projections of large countries with varying TFRs be run and then aggregated to the national level?
- Would the above be worth the effort?
- Opinions in India regarding TFR prospects in UP, etc., see TFRs of 2.1 or lower as a “distant dream.”
- But, to repeat, SRS birth rates are declining



Thank You