

United Nations  
Department of Economic and Social Affairs

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## Population Division

Expert Paper  
No. 2014/1

# **Different Pathways to Low Fertility in Asia: Consequences and Policy Implications**

*Mohammad Jalal Abbasi-Shavazi and  
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Asia: Consequences and Policy  
Implications**

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United Nations New York, 2014

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## NOTE

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## **INTRODUCTION**

Low fertility has become an important area of demographic research as fertility in many countries has fallen to and remained at levels well below replacement. Economically-advanced countries have experienced low fertility trends for decades, and many are experiencing lowest-low

#### A. LOW FERTILITY IN ASIA

There are 18 low-fertility countries (out of 50) in Asia, defined as having a total fertility level of 2.1 or fewer children per woman (also known as



The national averages presented in this section mask the considerable variation in total fertility across states, provinces or regions within countries. For instance, according to the National Family Health Survey-3 (IIPS, Macro International, 2007) carried out in 2005-2006, total fertility was 2.7 in India. However, ten states of India (Andhra Pradesh, Delhi, Goa, Himachal Pradesh, Kerala, Karnataka, Maharashtra, Punjab, Sikkim and Tam

non-marriage. In 2012, on average, Singaporean women married around 28 years of age and around 25 per cent of women aged 30-34 and around 13 per cent of women aged 45-49 remained single (table 2). The fertility of Singaporean women is pushed towards later ages, with peak fertility occurring in the age group 30-34 followed by the age group 25-29. In Malaysia, Myanmar, Thailand and Viet Nam, fertility is bimodal, peaking in the age groups 20-24 and 25-29 in Thailand and Viet Nam and in age groups 25-29 and 30-34 in Malaysia and Myanmar.

In Western Asia, fertility peaks in the age group 20-24 followed by the age group 25-29 in Armenia, Azerbaijan and Georgia, suggesting an early age at marriage (figure 5). It peaks in the age group 25-29 in Cyprus, Lebanon and the United Arab Emirates, suggesting a later age at marriage. It is also interesting to note that childbearing in these countries is concentrated within a narrow age range (20-29 years).

Despite variations in age patterns of fertility, distinctive patterns exist in the Asian region. For example, East Asian countries are experiencing a late pattern of childbearing while China, Azerbaijan, Armenia, Malaysia and the Islamic Republic of Iran have relatively young age patterns of childbearing. The following section examines the pathways by which low fertility has been attained in different regions and countries in Asia.

## B. EXPLANATION OF LOW FERTILITY IN ASIA

Eastern and South-eastern Asian subregions reached low fertility much earlier than other subregions, and have also experienced very low fertility. The economic, social and cultural contexts of subregions of Asia vary to a large extent, and thus the reasons behind and the pathways to low fertility in Asia vary by region and even countries. Despite the differences, some common factors have contributed to low fertility across Asia though the degree and timing of their impacts differ by context. For example, Eastern Asian countries implemented anti-natalist and government-sponsored family planning programmes more vigorously than other Asian countries in the 1960s. This was followed by rapid economic and social changes towards the end of the last century in the region. Western and Southern Asian countries initiated family planning programmes later and at a slower pace, which can partly explain why South Asian countries, with the exception of the Islamic Republic of Iran, have not experienced low fertility. Religious beliefs and practices also differ in Asia. Confucianism is the dominant religion in Eastern Asia while Islam is mainly practiced in the Western, Central and parts of Southern Asia. Some scholars have argued that Confucianism and the strong patriarchal family traditions are the distinct cultural factor behind very low fertility in Eastern Asia (Basten et al., 2013:31). However, there is no clear evidence to confirm the role of religion on low fertility as some of the Muslim countries (i.e., Islamic Republic of Iran, Lebanon and the United Arab Emirates) have reached low fertility despite having pronatalist ideologies (Jones and Karim, 2005; Groth and Sousa-Poza, 2012).

Fertility decline in Asia in recent decades is mostly due to delayed onset of childbearing, resulting in part from an increasing age at first marriage combined with low levels of non-marital births (Frejka et al., 2010). For instance, in 2012 the singulate mean age at first marriage (SMAM) for women was 30.3 years in Hong Kong SAR, and 29.7 years in Japan and the Republic of Korea (table 2). Japan's fertility decline since 1970s has been attributed almost entirely to decreasing rates of first marriage among young Japanese women (Tsuya et al., 2012).

The SMAM for women in some countries in Southern and Western Asia was still lower than 25 years. For example, the SMAM for women in the Islamic Republic of Iran was 23.5 years, despite the low fertility level in the country, while it was 22.7 years in Viet Nam, 24.1 years in Thailand, and around 24 years in Armenia and China. The proportion of never-married women aged 35-39 was 21 per cent in Myanmar and 23-24 per cent in Hong Kong SAR, Lebanon and Japan in 2012 (table 2). The proportion of women remaining single has increased in Singapore as in many other East Asian countries (Jones, 2012: 320). In 2012, around 12-13 per cent of women aged 45-49 in Hong Kong SAR, Japan and Singapore remained single (table 2).

Figure 6 shows the trend of total fertility and SMAM during the period 1975-1980 and 2005-2010. Postponement of marriage is associated with low fertility. During 1975-1980, the SMAM for most of the countries was around 22-23 years of age while total fertility varied between 2.4 and 5.6

implementation of family policies in Asia, as in Southern Europe, could be due to the gender role assignments within the strong patriarchal family system. Tsuya et al. (2000) noted that despite rapid increases in married women's employment in Japan, the Republic of Korea and the United States of America, and despite overwhelming preferences for wives to work in all three countries, gender role assignments of breadwinning primarily to husbands and housework to wives are still prevalent, affecting wives' employment patterns. Under such circumstances, the combination of work and family becomes a burden for employed women, especially for mothers. More than children, it is family care that puts pressure on families and influences childbearing decisions. The inflexibility of the job market makes life even more difficult for employed married women with family responsibilities. In the Republic of Korea, for example, married women seem to have only two options: either work long hours or not at all, illustrating the limitations that the market and society impose on women's ability to reconcile employment and family responsibilities (Tsuya et al., 2000). The impacts of female labour force participation and the incompatibility between work and family on fertility depend on institutions that can ease or complicate the task of being a parent and worker. Rindfuss, et al. (2003) argued that in the absence of appropriate societal responses, pressures on prospective parents could lead to extremely low fertility. They noted that "role incompatibility and the linkage between marriage and child-rearing frequently involve deeply held values which are not easily manipulated by policy makers". It is true that male involvement in family domains increases fertility, but it is not easy to change husbands and their culturally-influenced gender roles in the Asian setting.

Another aspect of the Asian family system that has contributed to low fertility as compared to European countries is the disapproval of cohabitation and childbearing outside marriage. Marriage is the gatekeeper to fertility. There is a low level of cohabitation (around three pe





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prospects, or incurring the displeasure of bosses or of co-workers (Jones, 2012: 326). Family-friendly



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ACKNOWLEDGMENTS

The authors wish to acknowledge useful comments and suggestions from Meimanat Hosseini-Chavoshi, Terence Hull as well as the participants of the Expert Group Meeting during 21-22 October 2013, New York, and participants of the seminar on Low Fertility in Asia at the University of Malaya in Kuala Lumpur, 16 January 2014. Many thanks also to Stephen Kisambira and Ann Biddlecom for reading an earlier draft of this paper and providing useful comments and editorial suggestions. The authors gratefully appreciate support from the United Nations and the Australian Research Council (FT0991820) that made the preparation of this paper possible.

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REFERENCES

- Abbasi-Shavazi, MJ., P. McDonald, and Hosseini-Chavoshi, M. (2009). *The Fertility Transition in Iran: Revolution and Reproduction*, Springer, Dordrecht.
- Abbasi-Shavazi, MJ., Hosseini-Chavoshi, M. Khosravi, A. and Banihashemi, F. (2013). The own-children estimates of fertility applied to the 2011 Iran Census and the 2010 Iran-MIDHS: An evaluation, Paper presented at the XXVII IUSSP International Population Conference, 26– 31 August, Busan, Republic of Korea.
- Aghajanian, A. and Thompson V. (2013), Recent divorce trends in Iran, *Journal of Divorce and Remarriage*, vol. 54, No. 2, pp. 112-125.
- Atoh, M. (2001). Very low fertility in Japan and value change hypotheses, *Review of Population and Social Policy*, No. 10, pp. 1-21.
- Basten, S., Sobotka, T. and Zeman, K. (2013). Future fertility in low fertility countries, Vienna Institute of Demography Working Papers, 5/2013.
- Bloom, D.E., Canning, D. and Sevilla, J. (2003).

- Gubhaju, B. and Moriki-Durand, Y. (2003a). Below replacement fertility in East and South-East Asia: consequences and policy responses, *Journal of Population Research*, vol. 20, No. 1, pp. 1-18.
- Gubhaju, B. and Moriki-Durand, Y. (2003b). Fertility transition in Asia: Past experiences and future directions, *Asia-Pacific Population Journal*, vol. 18, No. 3, pp. 41-68.
- Gu, B. and Che, Y. (2013). Contraception, a family planning imperative, *East Asia Forum*, vol. 5, No. 1, pp. 28-29.

Lee, S. and Kim, D. (2013). *Korean Population at 22 Glances*, Statistics Korea.

Lee, R. and Mason, A. (2006). What is the Demographic Dividend? *Fin*

- Sobotka, T. (2013). Pathways to low fertility: European perspective, Expert Paper No. 2013/8, Department of Economic and Social Affairs, United Nations, New York.
- Spoorenberg, T. and Enkhsetseg, B. (2009). Future low fertility prospects in Mongolia? An evaluation of the factors that support having a child, *Journal of Population Research*, vol. 26 no. 3, pp. 227-247.
- Suzuki, T. (2009). Population policy in Eastern Asian low fertility countries. Paper presented at the Poster Session on 2 October 2009 at the XXVI IUSSP International Population Conference in Marrakech, Morocco.
- Suzuki, T. (2012). Low fertility and governmental intervention in Japan and Korea, *The Japanese Journal of Population*, vol.10, No.1, 60-77.
- Tsui, A. (2013). What half a century of family planning can contribute, *East Asia Forum*, vol. 5, No. 1, pp. 26-27.

TABLE I. TOTAL FERTILITY OF LOW FERTILITY COUNTRIES IN ASIA BY SUBREGIONS, 1975-1980 TO 2005-2010

<i>Subregion, country or area</i>	<i>Total fertility</i>			<i>Percentage decline</i>	
	<i>1975-1980</i>	<i>1990-1995</i>	<i>2005-2010</i>	<i>1975-80 to 1990-95</i>	<i>1990-95 to 2005-10</i>
WORLD	3.85	3.04	2.53	21.2	16.7
ASIA	4.09	2.96	2.25	27.6	23.9
Eastern Asia	2.86	2.00	1.61	30.1	19.5
China	3.01	2.05	1.63	32.0	20.5
China, Hong Kong SAR	2.31	1.24	1.03	46.3	17.3
China, Macao SAR	1.41	1.41	0.94	0.2	33.2
Dem. People's Republic of Korea	2.68	2.25	2.00	16.1	11.0
Japan	1.83	1.48	1.34	19.4	9.3
Republic of Korea	2.92	1.70	1.23	41.9	27.6
Central Asia	4.43	3.55	2.67	20.0	24.6
Southern Asia	5.25	3.92	2.72	25.2	30.6
Iran (Islamic Republic of)	6.28	3.95	1.89	37.1	52.2
South-Eastern Asia	4.80	3.10	2.35	35.5	24.0
Malaysia	3.93	3.42	2.07	12.9	39.4
Myanmar	5.21	3.10	2.07	40.5	33.3
Singapore	1.84	1.73	1.26	5.9	27.4
Thailand	3.92	1.99	1.49	49.1	25.3
Viet Nam	5.50	3.23	1.89	41.3	41.6
Western Asia	5.34	4.00	2.92	25.1	26.9
Armenia	2.50	2.38	1.74	4.9	27.1
Azerbaijan	3.62	2.90	2.00	20.0	31.0
Cyprus	2.29	2.33	1.51	-1.8	35.3
Georgia	2.39	2.05	1.80	14.2	12.2
Lebanon	4.23	2.80	1.58	33.8	43.8
United Arab Emirates	5.66	3.88	1.97	31.5	49.2

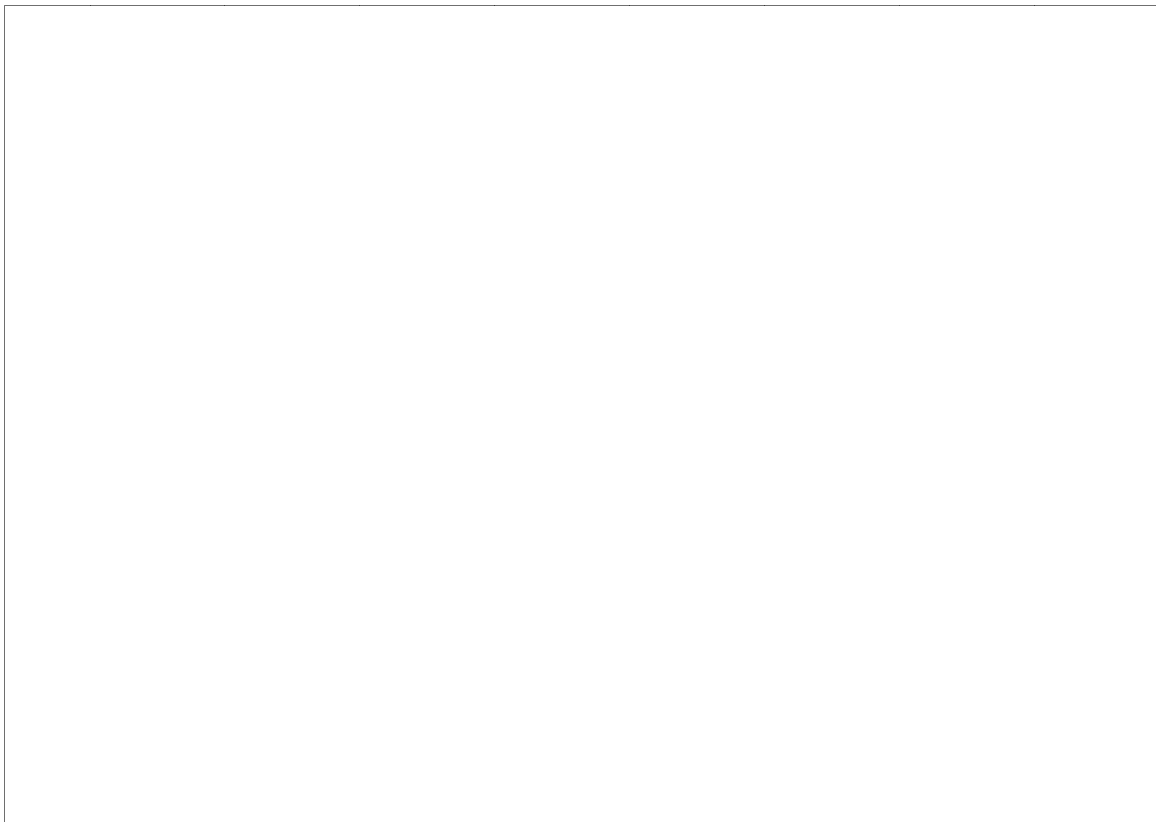
Source: United Nations (2013b). *World Population Prospects: the 2012 Revision*. CD Rom Edition.

TABLE 2. SINGULATE MEAN AGE AT MARRIAGE BY SEX AND PROPORTION REMAINING SINGLE BY AGE GROUP FOR WOMEN, LOW FERTILITY COUNTRIES IN ASIA,

Figure 1. Decline in total fertility in low-fertility countries of Asia, 1975-1980 to 2005-2010

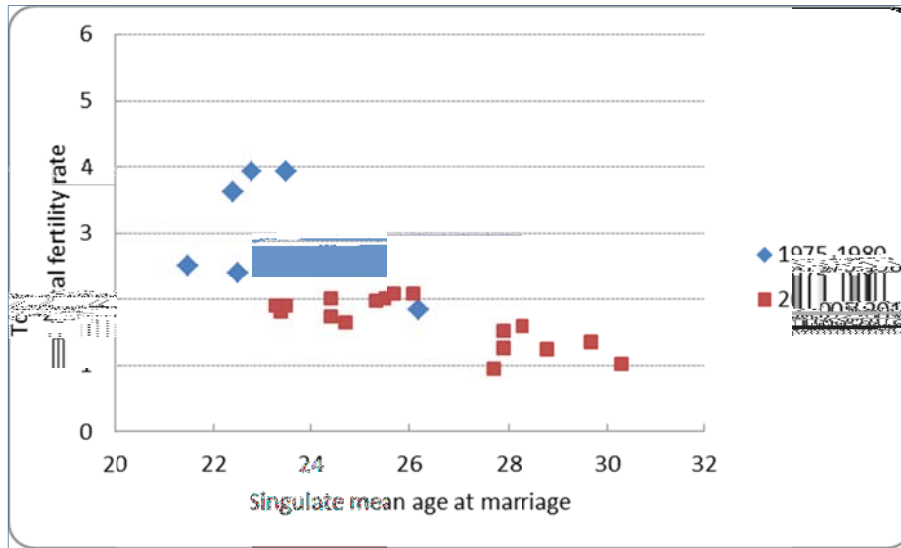


Source: Table 1



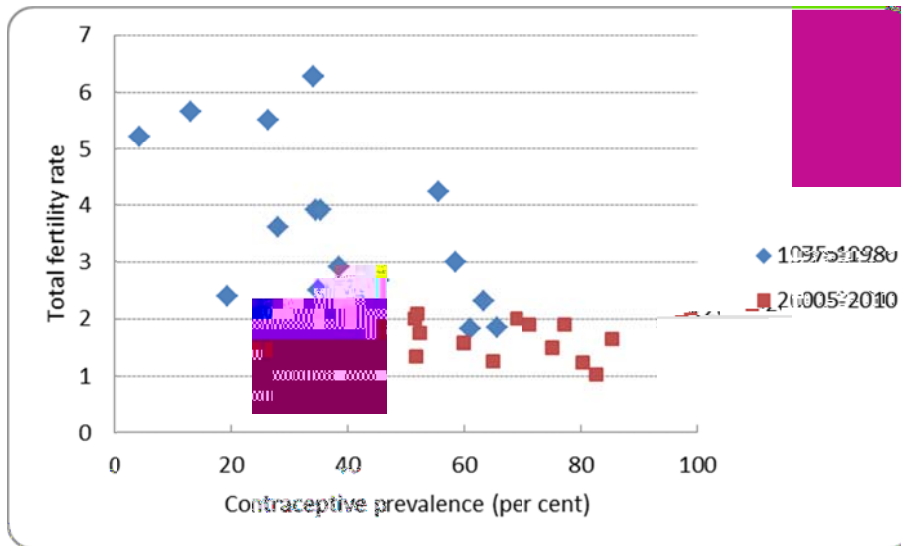
Source: United Nations (2013b) World Population Prospects: the 2011 Revision, CD Rom Edition

**Figure 6. Relationship between singulate mean age at marriage and total fertility in low-fertility countries of Asia, 1975-1980 and 2005-2010**



Source: United Nations (2013). United Nations, Population Division (2013)

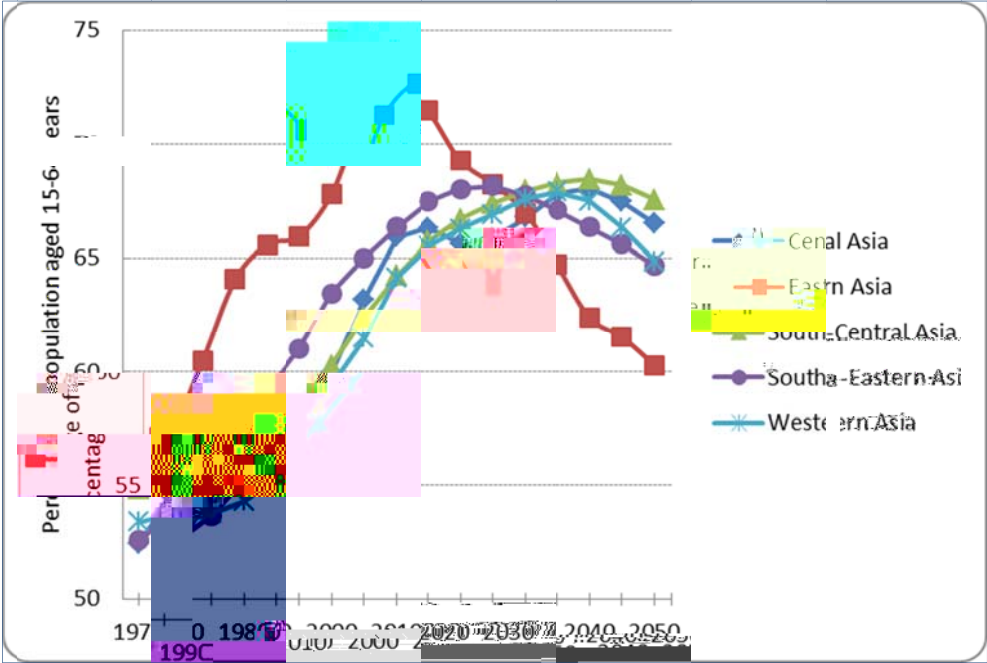
**Figure 7. Relationship between contraceptive prevalence and total fertility in low-fertility countries of Asia, 1975-1980 and 2005-2010**



Source: United Nations (2013). United Nations, Population Division (2013)



Figure 8. Demographic dividend by subregions of Asia: percentage of population aged 15-64, 1970-2050



Source: United Nations (2013). *World Population Prospects: the 2012 Revision*. CD Rom Edition.