

III. 研究成果の刊行に関する一覧表

研究成果の刊行に関する一覧表

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著者氏名	論文タイトル名	書籍全体の編集者名	書籍名	出版社名	出版地	出版年	ページ
小島 宏	アジアの少子化と少子化対策	店田廣文	アジアの少子高齢化と社会・経済発展	早稲田大学出版部	東京	2005	pp. 70-88

雑誌

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
小島 宏	華人人口と社会経済的研究	人口学研究	第31号	pp. 134-137	2002年
鈴木 透	Lowest-Low Fertility in Korea and Japan	人口問題研究	第59号第3号	pp. 1-16	2003年

IV. 研究成果の刊行物・別刷

日本人口学会編集

人口学研究

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【学界消息】

華人人口と社会経済的研究

—2000・2001年度人口センサス・データ分析—国際会議

小 島 宏

(国立社会保障・人口問題研究所)

2002年6月19～21日に香港科技大学 (Hong Kong University of Science and Technology) で人口学研究ユニットの涂肇慶 (Edward Jow Ching TU) 教授を組織委員長として「華人人口と社会経済的研究—2000・2001年度人口センサス・データ分析—」(Chinese Populations and Socioeconomic Studies: Utilizing the 2000/2001 round Census Data/華人人口與社會經濟研究: 2000/2001年度人口普查資料分析)と題された国際会議が開催された。わが国からは小生のみが招聘されたため、僭越ながら同会議について報告させていただくことにする。

1. 概 要

まず、同大学のウェブ上にある同会議の紹介 (<http://home.ust.hk/~sowjp/intr.htm>) によれば概要は以下の通りである。ただし、昨年末に作成され、小生も受け取った概要によれば、当初は華人(中国人)人口とは限らず、2000年前後の人口センサス・データを用いた分析に関する国際会議が企画されており、結果的に焦点が良く絞られたものの、民族的・地理的範囲が限定された会議となった。

1) 背景と重要性

中国、台湾、香港のいずれもが2000・2001年度前後にセンサスを実施した。また、中国も長文調査票による調査を全人口の1%に対して実施し、2000・2001年度センサスで詳細な社会経済的データを史上初めて収集した。2000・2001年度前後のセンサスによって、華人人口と社会経済的研究に関する豊富で最新のデータが提供されるであろう。そのようなテーマに焦点を合わせたセミナーによって、当該分野の研究者に対して実り多い討論を行い、共同研究を推進するために絶好の機会とフォーラムが提供されるであろう。

2) 目的

1. 2000・2001年度前後のセンサスデータを用いた華人人口と社会経済的研究について研究上のアイデアを交換すること。
2. 大多数の参加者の賛同が得られた場合、研究強化の方法、セミナー終了後の論文改訂、書物・議事録の出版について討議すること。
3. 華人人口とその社会経済的研究の強化を旨とするネットワークを確立するためのアイデアと計画について討議すること。

3) 会議のテーマ

1. 中国、台湾、香港における出生、結婚、離婚、家族世帯、死亡、移動、都市化に関する人口学的動向と地域間格差。
2. 異なる華人コミュニティにおける各種集団の社会経済的地位と社会的ネットワーク。
3. 社会経済的変数の人間行動に対する影響。
4. センサス実施方法に関する詳細な情報(センサス実施機関代表による説明の予定)。

5. 2000・2001年度前後の華人人口センサス・データの質の評価（センサス実施機関による説明の予定）とそのような評価の学術研究への活用方法。
6. 参加者の関心によるその他の関連テーマ。

4) 開催時期

2002年6月19～21日

5) 会場

香港科技大学講堂H

6) 参加予定者

中国・香港から約25名の研究者、台湾から約15名の研究者、北米・ヨーロッパから約15名の研究者、シンガポールから約5名の研究者。参加者には異なる地域のセンサス実施機関長6名も含む。

7) 共催機関

デューク大学華人人口・社会経済研究センター(CPSES)、香港科技大学社会科学部標本調査センター、中国人口学会、台湾人口学会、中国統計学会社会統計部会、北京大学健全高齢化・家族研究センター。

2. プログラム

2002年6月18日(火)には午後に参加登録が行われ、その後、開会式が行われた。組織者のEdward TU 香港科技大学教授による開会宣言の後、LIN Otto 香港科技大学副学長、TIAN Xueyuan 中国人口学会副会長、CHEN Chaonan 台湾人口学会会長、ZHANG Weimin 国家統計局人口・社会・科技統計課長、CHENG Minlu 台湾行政院主計局課長、Paul CHEUNG シンガポール統計局長、LAU Kwok Shun 香港統計局長、ZENG Yi 北京大学教授の挨拶が続いた。また、21日(金)の午後最後のセッションに続き、閉会式が行われた。会議本体のプログラムは以下の通りであった。

19 June 2002 (Wednesday)

1) Chair: ZHANG Weimin (張為民)

ZHANG Weimin (張為民): 2000年人口普查的方案改進和存在的問題

TSENG Min-Lu and CHOW Yuan-Hui: 2000 Population and Housing Census in Taiwan-Fukin Area-Conduction and Application

鄭敏祿, 周元暉: 西元2000年戸口及住宅普查之辦理及應用

Paul CHEUNG (張保羅): Singapore's New Approach to Census Taking

2) Chair: CHANG Ming Cheng (張明正)

CHEN Chaonan (陳肇男): 臺灣2000年戸口普查結果的評價: 常住人口與戶籍登記人口的比較分析

XIE Yu (謝宇): Adult Education in China: Evidence from the 1990 and 2000 Censuses

Leow Bee-Geok: Changing Educational Profile of Singapore

KOJIMA, Hiroshi: The Undercount of Foreign Population in the Japanese Census

3) Chair: GUI Shixun (桂世勛)

CHEN Kuanjeng (陳寬政): 臺灣之家戶組成

GUI Shixun (桂世勛): 上海市老年人口狀況及老齡化發展趨勢預測—“五普”資料分析

CHANG Ming Cheng (張明正): 臺灣地區之婦幼比: 普查與戶籍資料之比較

CHAN Kam Wing: Urbanization and Migration in China in the 1990s: New Definitions and Revised Trends

4) Chair: XIE Yu (謝宇)

- TSAI Chinglong and DAI Bofen (蔡青龍, 戴伯芬)：台灣之外籍人力分析
 WANG Feng (王丰)：中國2000年普查是研究社會變化的新資料資源：以住房分佈為例
 LI Jianmin (李建民)：中國勞動力年齡人口的就業狀況分析
 陳婉慧：二零零一年人口普查：香港的人口特徵概要

20 June 2002 (Thursday)

- 1) Chair: CHEN Kuanjeng (陳寬政)
 YANG Wenshan (楊文山)：臺灣地區高齡人口健康平均餘命的估計：以2000年戶口普查為依據
 XIAO Zhenyu (蕭振禹)：跨世紀百年中國人口年齡結構的衝擊
 Ching-Syang Jack Yue & HU Yuhui (余清祥 & 胡玉蕙)：臺灣地區高齡人口失能狀況的空間分析
 PENG Qipeng (彭啓鵬)：廣東流動人口研究
 Koh Eng-Chuan: Singapore's Changing Population Trends
 2) Chair: ZENG Yi (曾毅)
 CHEN Hsinmu(陳信木)：2000年臺灣人口普查資料之性別年齡結構正確性探討—微視人口類比方法之應用
 HUANG Rongqing (黃榮清)：中國各民族人口變動
 KONG Ailing (孔愛玲)：深埕人口與可持續發展
 Ong Whee-Sze: Income Distribution and Inequality Measures in Singapore
 GOODKIND, Daniel: Recent trends in the sex ratio at birth in East Asia and its relevance for census data and population projections
 3) Chair: CHEN Chaonan (陳肇男)
 LIU Yongli (劉勇利)：2000年住房狀況簡析
 LUO Kuohua (羅國華)：Development and Applications of Census Geography: The Taiwan Experience
 CUI Hongyan & ZHANG Weimin (崔紅豔&張為民)：對2000年人口普查人口總數的初步評價
 于弘文&崔紅豔：人口普查中城鎮人口統計口徑研究
 JAO Chih Chien (饒志堅)：由普查資料探討臺灣兩性差異—以1990及2000戶口普查資料為例
 Edward TU Jow Ching (涂肇慶) & Judith Banister: Mainland Migrants to Hong Kong Figures
 4) Chair: Paul CHEUNG (張保羅)
 TU Jow Ching & YUAN Xin (涂肇慶 & 原新)：流遷人口對廣東人口發展的替代效應
 LIANG Zai & MA Zhongdong (梁在&馬忠東)：China's Floating Population: New Evidence from the 2000 Census
 GUO Guang (國光)：九十年代中國農村—城鎮遷移：2000年普查資料分析
 YANG Yunyan (楊雲彥)：中國人口遷移與流動十年回顧與展望
 LAU Kwok Shun (劉國信)：香港人口的 部遷移及遷居情況
 5) Chairs: TU Jow Ching, ZENG Yi, CHEN Kuanjeng (涂肇慶, 曾毅, 陳寬政)
 中華人口與社會經濟研究網絡展望

21 June 2002 (Friday)

- 1) Chair: TSAI Chinglong (蔡青龍)
 HSUEH Chengtai (薛承泰)：臺灣地區單親戶的變遷：1990與2000年普查資料的比較
 LI Shuzhuo (李樹茁)：A preliminary analysis of Mainland Chinese mortality in the 1990s
 QIAN Zhenchao (錢振超)：Educational Assortative Mating and Social Mobility
 YANG Chingli (楊靜利)：臺灣之同居與分居之狀況
 2) Chair: LI Jianmin (李建民)
 ZHANG Juwei (張車偉)：Unemployment in Economic Restructuring in China

LIN Jiping (林季平) : 臺灣老年人口活動障礙之地理資訊展示

LIU Yuzhi (柳玉芝) : 中國老年婦女的人口學特徵與社會經濟發展

ROBINE, Jean-Marie and Edward TU Jow Ching : Census and Dependency Ratio

3) Chair : WANG Feng (王豐)

WANG Qian (王謙) : 20世紀90年代中國大陸計劃生育工作的成就及影響

GREENHALGH, Susan : Social and Cultural Dimensions of the Population Numbers

MA Zhongdong (馬忠東) : Immigration Transition and Income Return to Return Migration: Insights from Micro Data of Hong Kong 2001 Census

CAI Yong and LAVELLY, William B. : The Effect of Missing Girls on Population Growth in China, 1980-2099

4) Chair : TU Jow Ching (涂肇慶)

POSTON, L. Dudley : The Statistical Modeling of Fertility with Census Data on Children Ever Born

DEVORETZ, Don : Constructing a Brain Exchange Profile for Canada from the Canadian and US Census: The Staying Power of Brains

POST, David : Census Data Description and Preliminary Results for the 1981-2001 Period: A Reversal of Equity in University Access in Hong Kong?

ZENG Yi (曾毅) : 人口普查資料分析應用的發展前景及會議簡要小結

3. 若干の感想

以上の概要とプログラムは実態に近い予定であるが、最終版が未だに公表されていないため、これらを利用せざるを得ない。たとえば、かつてわが国に留学されていた HUANG Rongqing (黄榮清) 教授は出席されず、「中國各民族人口變動」と題された論文も配布されなかった。黄教授に再会できなかったことはもちろんであるが、もっとも興味がある報告を拝聴できなかったことが非常に残念であった。しかし、内容が微妙な民族問題に関わるので、データが利用可能にならなかったことも可能性としては考えられる。

しかしながら、その他の側面に関する中国のセンサス結果はかなり公表されていたし、意外にデータの公表がなされていないシンガポールのセンサス結果もそれなりに公表されていた。シンガポールについては若年層で中国系よりもインド系の方が大学進学率が高いことが示されたのが、非常に興味深かった。確かに、各種の国際会議で若手のインド系シンガポール人を見かけることが多くなったような気がする。

報告のうちのかなりは北京語で行われ、一部が英語や広東語等の方言で行われた。非中国系の米国人でも北京語で報告した者が多かった。とは言うものの、中国の年輩の研究者や地方行政官の一部を除き、参加者のほとんどは英語が堪能であったことに驚かされた。

明治大学の日本人口学会大会、バンコクの国際人口学会地域大会に続いて開催されたため、準備不足であったが、旧知の人口研究者と再会するとともに、新たな研究者と知り合いになることができ、中国語圏における人口研究の新たな息吹を感じ取ることもできたことは非常に幸運であった。事実上、中国語圏人口学会大会のようなものであるが、地理的にも政治的にも香港で開催されたのは最適であったように思われる。最後になったが、中国、台湾、米国、香港に在住経験があり、各国に幅広い人脈をもつ香港科技大学の Edward TU Jow Ching (涂肇慶) 教授が、北京大学に籍がありながら米国デューク大学で活躍する ZENG Yi (曾毅) 教授や学友で元台湾 (中華民国) 人口学会会長の CHEN Kuanjeng (陳寬政) 台湾中央研究院教授とともに、この会議の開催にこぎ着けられたことに謝意と敬意を表したい。

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Lowest-Low Fertility in Korea and Japan

韓国と日本の極低出生力

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研 究 論 文

Lowest-Low Fertility in Korea and Japan

Toru Suzuki

In the 1990s, many countries in Southern, Central and Eastern Europe as well as the former Soviet Union started showing lowest low fertility, defined as having TFR of 1.3 or less. In Eastern Asia, the Republic of Korea arrived at the line of 1.3 in 2001 and Japan is approaching such a level. This paper compares Korea and Japan with European forerunners to investigate Eastern Asian characteristics of lowest-low fertility. The decline in TFR and the delay in childbearing were slower in Korea and Japan than in Europe. Cohabitations and extramarital births are very uncommon in Japan. The M-shaped curve in female labor participation is prominent in Korea and Japan. It is discussed that lowest-low fertility is a normal response to socioeconomic changes in the postmaterial era and that moderately low fertility in Northern and Western Europe and English speaking countries is an exceptional phenomenon. Cultural factors that prevent fertility from declining to lowest-low level are examined.

I. Lowest-Low Fertility in Europe and Eastern Asia

Kohler et al. (2002) discussed the expansion of lowest-low fertility, defined as having TFR (Total Fertility Rate) of 1.3 or less, in Southern, Central and Eastern Europe, and the former Soviet Union. In an early version (Kohler et al., 2001, p.5), they listed the Republic of Korea (simply "Korea" henceforth) and Japan as candidates, suggesting that lowest-low fertility is going to spread also in Eastern Asia.

The demographic conditions in countries listed in Table 1 are so unstable that there were some changes in membership in 2000. While Belarus, Estonia, Hungary and Romania exit with TFR rising to over 1.3, Lithuania, Slovakia, and Moldova attained lowest-low fertility levels (Kohler et al., 2002, p.643). Though they did not refer to non-European countries, Korea also entered with TFR of 1.30 in 2001. While Japan remained in a candidate position with TFR of 1.32 in 2002, Korean TFR showed a further rapid drop to 1.17. Thus, Korea now has full membership in the lowest-low fertility club and is the top runner of fertility decline in Eastern Asia except for metropolitan states such as Hong Kong or Singapore. It seems to be only a matter of time before Japan arrives at lowest-low level because its fertility has been declining slowly but steadily. This paper compares Korea and Japan with European forerunners to investigate Eastern Asian characteristics of lowest-low fertility.

Table 1. Lowest-low fertility countries and candidates

Region	Country	TFR (1999)
Southern Europe	Greece	1.30
	Italy	1.19
	Spain	1.20
Central and Eastern Europe	Bulgaria	1.23
	Czech Republic	1.13
	Estonia	1.24
	Hungary	1.29
	Latvia	1.16
	Romania	1.30
	Slovenia	1.21
The Former Soviet Union	Armenia	1.20
	Belarus	1.29
	Georgia	1.07
	Russia	1.17
	Ukraine	1.19*
Candidates	Croatia	1.38
	Lithuania	1.35
	Poland	1.37
	Slovakia	1.33
	Austria	1.32
	Germany	1.36
	Japan	1.34
	Korea	1.42

Source: Kohler et al. (2001)

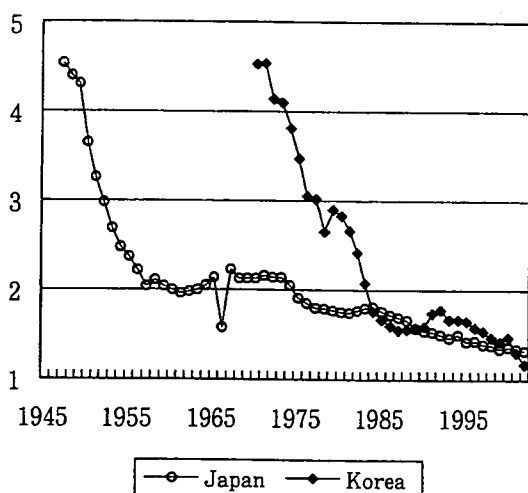
* 1998

II. Period Fertility

As shown in Figure 1, TFR in Japan and Korea declined dramatically to the replacement level in the 1950s and 1970s, respectively. However, the decline from the replacement level was relatively slow. Table 2 shows the years spent to move through each TFR range. There seems to have been a barrier between TFR levels 1.4 and 1.6 for countries in Eastern Asia, Southern Europe and German speaking countries, while countries in Eastern Europe and the former Soviet Union moved through the range very quickly. It is understandable that the fertility decline was drastic in the latter group, which experienced the transition to a market economy. However, Eastern Asian fertility change is slower than Southern European countries that did not experience such radical reformation.

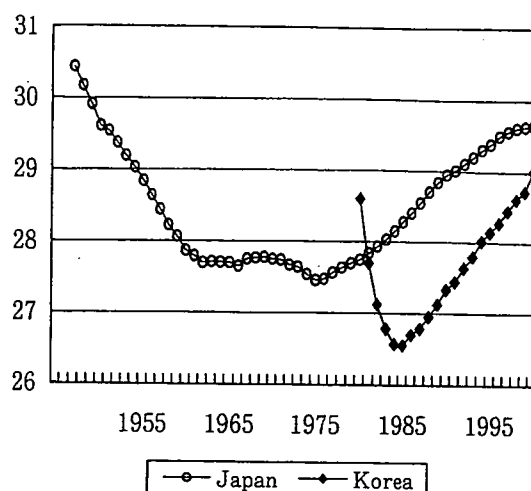
Figure 2 shows the trend of the mean age at childbearing (MAC) in Korea and Japan. Japan's MAC has been rising since the mid-1970s but the tempo of postponement slowed down in the late 1990s. The MAC in Korea started rising in the mid 1980s and the tempo of postponement has been faster than in Japan.

Figure 1. Total Fertility Rate



Sources: *Vital Statistics of Japan, KOSIS.*

Figure 2. Mean Age at Childbearing



Sources: *Vital Statistics of Japan, KOSIS.*

Table 3 compares years spent to move through each one-year age interval. The tempo of MAC change of Korea is similar to that in Southern Europe, while Japan is comparable with Germany and Austria. This table also indicates that, presently, the MACs in Korea and Japan are as high as in Southern Europe. Thus, recuperation of fertility at older ages is less plausible in these countries (Kohler et al., 2002, pp.645-646).

Table 2. Tempo of TFR decline

Country	Years 2.0→1.8	Years 1.8→1.6	Years 1.6→1.4
Korea	1	4	6
Japan	4	5	9
Italy	3	3	6
Spain	3	3	5
Greece	3	3	4
Bulgaria	5	2	3
Czech Republic	10	3	2
Estonia	1	3	2
Hungary	4	4	3
Latvia	2	2	2
Romania	2	2	4
Slovenia	4	6	4
Belarus	3	3	2
Georgia	1	3	3
Russia	2	2	2
Ukraine	4	2	3
Croatia	19	6	2
Lithuania	3	2	4
Poland	4	2	4
Slovak	3	2	4
Austria	4	8	15
Germany	2	2	12

Sources: *KOSIS, Latest Demographic Statistics, Recent Demographic Developments in Europe.*

Table 3. Tempo of MAC rise

Country	Years 25→26	Years 26→27	Years 27→28	Years 28→29	Years 29→30
Korea			6	7	
Japan				9	
Greece			6		
Italy				7	6
Spain					5
Bulgaria					
Czech Republic	4	5			
Estonia		4			
Hungary	9	7			
Latvia		5			
Slovenia		5	5		
Croatia		5			
Austria			11		
Germany			9		

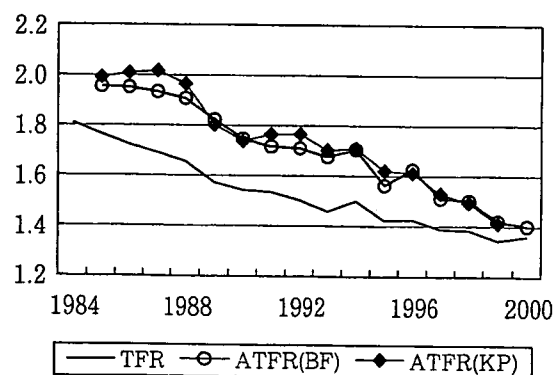
Sources: *Latest Demographic Statistics, KOSIS*,
Recent Demographic Developments in Europe.

Even though the postponement of childbearing in Eastern Asia is not as impressive as in Eastern Europe, it still raises the issue of tempo distortion. Figure 3 presents two Adjusted Total Fertility Rates (ATFRs) for Japan calculated by the author. The assumption of the BF model (Bongaarts and Feeney, 1998) is simple. Age patterns by parity are assumed to shift linearly over time without any changes in shape, which means only the mean age by parity changes while higher order moments are held constant. In contrast, the KP model (Kohler and Philipov, 2001) allows an exponential change of variance in addition to the linear change of the mean.

Because of the recent slow-down in postponement shown in Figure 2, the difference between TFR and ATFR has been narrowed. This implies that the recent very low fertility in Japan, slightly more than 1.3, is not a temporary phenomenon caused by the tempo distortion. The difference between the BF and KP models is small. As Zeng and Land (2001) discussed, the BF method is robust except for abnormal conditions such as the roller coaster fertility change in Sweden around 1990.

Since the delay in childbearing is more rapid in Korea than in Japan, the tempo distortion in Korean fertility would be larger than that in Japan. In the 1990s, the mean age at childbearing in Korea annually rose by 0.17 years on average. If this rate were uniformly applied to all birth orders, ATFR in Korea would be about 20%

Figure 3. TFR and ATFR in Japan



higher than TFR. In this sense, ATFR value of 2.46 in 2000 (Cheon KH, 2002, p.108), which is 68% higher than TFR, should be taken as an outlier.

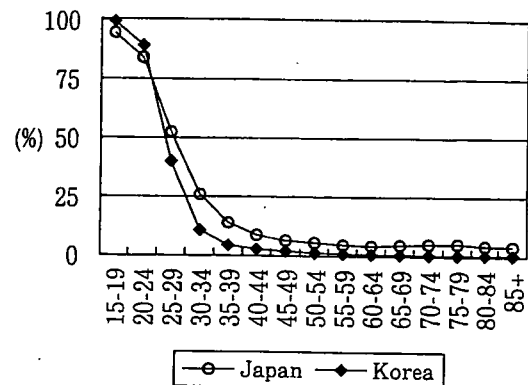
III. Nuptiality

Figure 4 compares the proportion of single females in 2000 between Korea and Japan. At this point of time, Korea had an earlier and more universal pattern of marriage. Only 1.7% of Korean women aged 45-49 were single, while 6.3% of Japanese women stayed single.

The latest population projection for Japan assumed that, as the medium variant, the proportion of females single at age 50 will rise to be 16.8% for the 1985 birth cohort (NIPSSR, 2002, p.18). Although such a projection is not available for Korea, it is possible that the marriage squeeze caused by the imbalance of sex ratio at birth (Pyeon HS, 2002, p.230) prevents the proportion of females never married from rising rapidly.

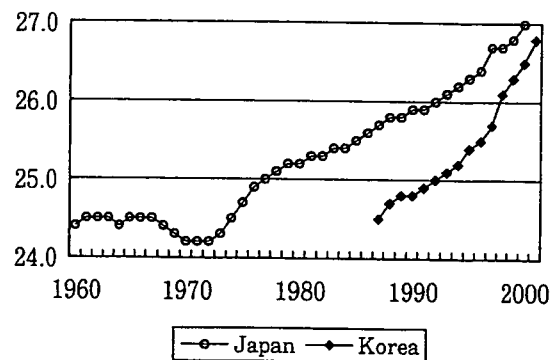
Figure 5 shows female mean ages at first marriage in Korea and Japan. The change is faster in Korea and catching up with Japan. As shown in Figure 6, crude divorce rate for Korea has already overcome that of Japan. The change of Korean nuptiality after the IMF economic crisis in 1997 is very impressive. These sudden declines in nuptiality are explained by changing labor market conditions such as growing instability and uncertainty of employment and difficulty for young people to find jobs. Thus, it is thought that the economic crisis not only accelerated the long-term trend of nuptiality decline but also caused a perpetual change in marital behavior of Korean people (Eun KS, 2003).

Figure 4. Female proportion single (2000)



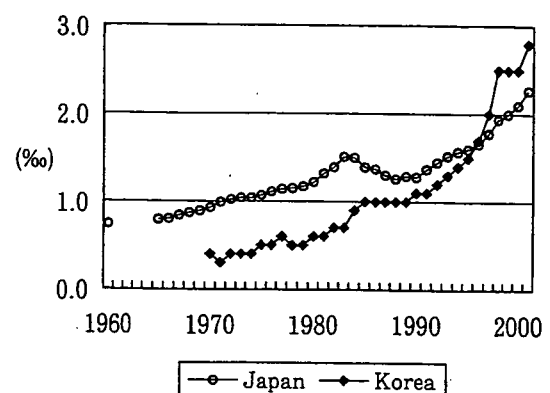
Sources: *Census of Japan, KOSIS.*

Figure 5. Female mean age at first marriage



Sources: *Vital Statistics of Japan, KOSIS.*

Figure 6. Crude divorce rate



Sources: *Vital Statistics of Japan, KOSIS.*

IV. Marital Fertility

In evaluating the change in marital fertility and its contribution to fertility decline, both Japanese and Korean demographers often rely on age-specific marital fertility rates, namely the number of births by age of mother divided by the currently married female population at each age. They conclude that marital fertility rose in the 1990s and that it contributed little to the recent fertility decline (NIPSSR, 1997, p.10; Kim SK et al., 2002, p.77; Cheon KH, 2002, pp.90-94; Eun KS, 2003, pp.13-15).

However, age-specific marital fertility rates are erroneous. According to Hiroshima (2001), the rate does not indicate the true fertility level of a married couple. Moreover, the rate is seriously misleading when there is a trend of marriage postponement. Hiroshima's simulation suggests that a decomposition analysis using the age-specific marital fertility rates fails when the true marital fertility is held constant and only the delay in marriage proceeds.

The trend and contribution of marital fertility cannot be determined while one relies on the age-specific marital fertility rates. It is plausible that the situation of Korea is similar to Japan, where a simple decomposition using age-specific marital fertility rates indicates that nuptiality decline dominantly explains the fertility change, while more sophisticated methods show that both nuptiality and marital fertility are important (Hiroshima, 1999, 2000; Ogawa, 1998; Suzuki, 2000; Iwasawa, 2002).

V. Cohabitation and Extramarital Births

Today, there is a positive correlation between fertility and extramarital childbearing in Europe (Atoh, 2000, p.203; Dalla Zuanna, 2001, p.136; Billari and Kohler, 2002, p.17). The prevalence of births out of wedlock is especially low in Italy and Spain, two top runners of lowest-low fertility. Thus, slow emergence of such postmodern behaviors is an important aspect of lowest-low fertility.

Tables 4 and 5 show the prevalence of cohabitation and extramarital births in Japan and lowest-low fertility countries. The emergence of these new demographic behaviors in Japan is even slower than in Italy and Spain. Though Table 4 does not show the exact proportion cohabiting in Japan, a national survey in 1997 revealed that 1.0% of single women aged 25-29 cohabited (NIPSSR, 1999, p.38). If this figure is applied to the proportion of single women in this age group in the 1995 census (48.2%), the prevalence of cohabitation in the late 1990s is thought to have been 0.48%.

The prevalence of extramarital births is available in the vital statistics of Japan. The figure has been growing since the late 1980s but the change has been very slow. As a result, the proportion of births out of wedlock in 2001 was still as low as 1.7%. With this rate of change, it will take

several decades for Japan to arrive at the level of Southern Europe today.

The data on cohabitation or extra-marital birth are not available in Korea. It has been supposed that both new behaviors are very uncommon because of strong Confucian tradition (Cho BY et al., 1999, pp.38-39). On the other hand, some demographers assert that, without any evidence, premarital cohabitation is recently on an increase (Pyeon HS, 2002, pp.244-245; Cheon KH, 2002, p.110). Considering the drastic change in nuptiality after the economic crisis, it is possible that these behaviors have increased to some extent. It is very unlikely, however, that cohabitation and extramarital births in Korea are more frequent than in Italy and Spain. Thus, low prevalence of cohabitation and extramarital births could be mentioned as one of the most prominent features in Eastern Asian demographic conditions.

VI. Proximate Determinants

According to the result of the latest Korean national fertility survey in 2000, the prevalence of contraception among wives aged 15-44 sustained a high level of 79.3%, just a slight decrease from 80.5% in 1997 (Kim SK et al., 2000, p.142). Corresponding figure in Japan for wives aged 20-49 was 60.4% in 1997 (NIPSSR, 1998, p.33). Contraceptive prevalence in Korea is thought to have reached the saturation level in the 1980s and explains little about recent fertility decline (Cheon JK, 1997, p.82). Some decomposition analyses show a significant effect of contraception on fertility decline (Cheon KH, 2002, p.90; Eun KS, 2003, p.12). However, they are not reliable because they use the age-specific marital fertility rates.

There is a surprisingly wide range in the prevalence of induced abortion among lowest-low fertility countries. As shown in Table 6, while there is practically no abortion in Poland, two of

Table 4. Proportion cohabiting among women aged 25-29 (%)

	1991-93	1994-97
Japan		0
Italy	2	3
Spain	4	5
Bulgaria	0	
Czech Republic	11	
Hungary	2	
Romania	4	
Slovenia	14	15
Estonia	6	16
Latvia	8	11
Russia	3	
Belarus	4	
Poland	3	0
Austria	12	21
Germany	20	14
Lithuania	0	4

Sources: Iwasawa (1999), van de Kaa (2002).

Table 5. Proportion of extramarital births (%)

Country	Year	Proportion of extramarital
Japan	1998	1.4
Italy	1998	9.0
Spain	1996	11.7
Greece	1998	3.7
Austria	1998	29.5
Germany	1998	19.3

Sources: *Latest Demographic Statistics*,
Recent Demographic Developments in Europe.

three pregnancies result in abortion in Russia. The ratio of abortion to birth in Japan (28.3%) is moderate and about the same as Italy.

It is understandable that Korea lacks data on cohabitation or extramarital births, because these behaviors have been uncommon. However, it is strange that there is no exact number of abortions. The only available data on abortion is on experiences among currently married women. As Table 7 indicates, Korean wives experienced about twice as many abortions as Japanese wives. If this ratio were applied also to unmarried women, the abortion/birth ratio in Korea would be 50-60%.

Although the prevalence of abortion is ambiguous, its impact is very obvious. The sex ratio at birth in Korea started rising in the 1980s and recorded

115.3 in 1993. The ratio declined thereafter but is still unnaturally high, indicating that selective abortions are prevailing (Cheon KH, 2002, p.96; Eun KS, 2003, p.4). About the same level of imbalanced ratio has been observed in China, and moderately high ratio in Taiwan (Hayashi, 2001, pp.30-33).

Such an imbalance of sex ratio is not observed in Japan where the ratio has never deviated from the range between 105 and 108 since 1960. Curiously, there has been an increase in preference for daughters among Japanese wives (NIPSSR, 1998, p.41). However, such an attitudinal change has never affected reproductive behavior. On the other hand, both strong preference for sons and acceptance of sex check during pregnancy have been observed among Korean wives (Lee SS, 2001). The prevailing selective abortion and imbalanced sex ratio could be pointed out as an element of fertility decline in Eastern Asia other than Japan. Full explanation of son preference and selective abortion might be difficult, but some cultural properties common to Korea and China, such as the combination of Confucian thought and patrilineal kinship system, could be working as an important factor.

Table 6. Induced abortion

Country	Year	Abortion / birth ratio
Japan	1997	28.3
Italy	1995	25.5
Greece	1994	12.2
Czech Republic	1997	49.7
Hungary	1998	70.9
Romania	1998	114.4
Estonia	1997	131.6
Latvia	1998	108.4
Russia	1995	202.8
Belarus	1998	156.9
Georgia	1993	73.3
Armenia	1997	57.5
Poland	1997	0.8
Slovak	1991	58.4
Germany	1995	12.8
Lithuania	1998	56.8

Source: *Latest Demographic Statistics*.

Table 7. Experience of induced abortion among currently married women, 1997

	Experience (%)	Average times
Korea (1997)	44.2	0.7
Japan (1997)	22.8	0.32

Sources: NIPSSR (1998), Cho et al. (1997)

VII. Transition to Adulthood

Lowest-low fertility is a part of an overall postponement in transition to adulthood including graduating from school, finding a stable job, leaving the parental home, and union formation. In this line, Italy and Spain are characterized by lowest-low fertility and latest-late home-leaving (Billari and Kohler, 2002, pp.13-14). Leaving home before marriage has been uncommon in Southern Europe and these two events have been considered to be inseparable (Reher, 1998, pp.204-205). In fact, 76% of the female cohort born around 1960 in Italy and Spain left home at marriage (Billari et al., 2001, p.28).

Table 8 compares the timing of home-leaving in lowest-low fertility countries and Japan. The uniqueness of Japan is in its gender difference. Though a pattern that men leave earlier than women was observed in pre-industrial England and the United States during World War II (Wall, 1989, p.385; Goldscheider and Goldscheider, 1994, p.14), Japan seems to be the only country with this reversed gender pattern in the contemporary world.

This pattern comes from the difference in the proportion leaving at marriage. In most European and Northern American countries, the proportion is only moderately higher for women than for men. In Japan, however, the female proportion of leaving for marriage (52.9%) exceeds the male proportion (20.5%) by more than 30 points. This gender gap easily overcomes the difference in age at marriage and produces the reversed pattern.

While Japanese men leave as early as Northern European males, Japanese females leave as late as Southern Europeans. Thus, it can be said that Japanese women suffer "postponement syndrome" (Livi-Bacci, 2001) as serious as Italian and Spanish women.

There is little data on home-leaving in Eastern Asia other than Japan. The only empirical evidence that I could find is indirect estimates using census data by Zeng and others (1994). It is expected that the proportion leaving at marriage among Korean women is as high as in Japan, and that Korean women experience about the same level of postponement syndrome. This expectation needs to be tested directly with empirical evidence.

Table 8. Median age at home-leaving of cohort born around 1960

Country	Male	Female
Japan	20.2	22.8
Italy	26.7	23.6
Spain	25.7	22.9
Czech Republic	23.8	21.2
Hungary	24.8	21.3
Slovenia	20.9	20.5
Latvia	24.1	21.3
Poland	25.8	22.5
Austria	21.8	19.9
Germany	22.4	20.8
Lithuania	20.3	19.8

Source: Suzuki (2002)

VIII. Female Labor Force Participation and Gender Equity

McDonald (2000, p.437) stated in his proposition 5 that very low fertility appears where gender equity is high in an individual-oriented institution but low in family-oriented institution. This explains the positive correlation between fertility and female labor force participation observed among developed countries today (Atoh, 2000, p.202; Billari and Kohler, 2002, p.21). The low female labor force participation in lowest-low fertility countries, especially in Southern Europe, is attributable to conflict between childbearing and career attainment due to strong gender role distinction.

The difficulty of continuous work for mothers with young children in Korea and Japan is obvious from the M-shaped curve in the proportion economically active. As shown in Table 9, in 1995, Japanese women had a big drop of more than 10% between 25-29 and 30-34, and Korean women had a drop between 20-24 and 25-29. Such a clear M-shaped curve could not be found in European lowest-low fertility countries. Only moderate drops of less than 5% were found in Greece, Austria and Germany.

The pattern of female economic activity in Korea is changing rapidly. As Figure 7 indicates, the bottom of the M-shape shifted to age 30-34. The M-shape pattern in 2000 has become less clear than in 1995, especially in metropolitan area. However, there still is a strong negative correlation between the presence of a child and the labor force participation of a woman in her 20s and 30s (Min KH, 2002, pp.419-420).

Even though there was some improvement in solving conflict between childbearing and labor participation, the gender inequality in Korea still seems to be serious. As demonstrated in Table 10, the Gender Related Development index that indicates equity in health, education and income is lower in Korea than in Japan and Southern Europe. Moreover, the Gender Empowerment Measure

Table 9. Female proportion economically active (%) around 1995

Country	(A)	(B)	(C)	Differences	
	20-24	25-29	30-34	(B)-(A)	(C)-(B)
Japan	74.1	66.4	53.7	-7.7	-12.7
Korea	66.1	47.8	47.5	-18.3	-0.3
Greece	54.6	66.1	63.0	11.5	-3.1
Hungary	47.8	50.9	65.5	3.1	14.6
Roumania	63.9	76.5	81.1	12.6	4.6
Slovenia	65.8	91.3	94.5	25.5	3.2
Estonia	52.7	68.9	82.0	16.2	13.1
Poland	60.0	71.1	79.7	11.1	8.6
Slovak	57.4	70.8	85.2	13.4	14.4
Austria	73.2	78.2	74.1	5.0	-4.1
Germany	70.8	75.5	73.6	4.7	-1.9

Source: ILO, *Yearbook of Labour Statistics* 1996.

Table 10. Human Development Indices

Country	Human Development Index HDI	Gender-related Development Index GDI	Gender Empowerment Measure GEM
Korea	0.879	0.873	0.363
Japan	0.932	0.926	0.515
Italy	0.916	0.910	0.561
Spain	0.918	0.912	0.709
Greece	0.892	0.886	0.519
Bulgaria	0.795	0.794	
Czech Republic	0.861	0.857	0.579
Hungary	0.837	0.834	0.518
Romania	0.773	0.771	0.460
Slovenia	0.881	0.879	0.582
Estonia	0.833	0.831	0.560
Latvia	0.811	0.810	0.576
Russia	0.779	0.774	0.440
Ukraine	0.766	0.761	0.406
Belarus	0.804	0.803	
Croatia	0.818	0.814	0.534
Poland	0.841	0.839	0.594
Slovak	0.836	0.834	0.582
Austria	0.929	0.938	0.782
Germany	0.921	0.924	0.776
Lithuania	0.824	0.823	0.499

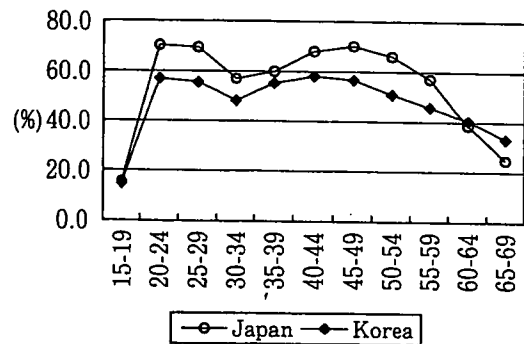
Source: UNDP, *Human Development Report* 2003.

that displays equity in political and economic leadership is lowest in Korea among countries in the table. This very low GEM is taken seriously by Korean feminists (Park SJ).

IX. Discussion

Demographers have failed to predict fertility changes in the developed world. When fertility decline to the replacement level was widely observed in the countries that achieved economic development, the demographic transition theory anticipated that the fertility would fluctuate around the replacement level. However, the postwar baby boom in Northern and Western European countries was followed by the secondary decline of TFR to below-replacement level. Since this new fertility decline coincided with the emergence of cohabitation and extramarital births, the second demographic transition theory assumed the changing values toward individualism and secularism to be the main cause of the transition (van de Kaa, 1987). In the 1990s, however, lowest-low fertility appeared in Southern and Eastern Europe

Figure 7. Female labor force participation (2000)



Sources: *Census of Japan*, *KOSIS*.