APPENDIX

Summary of country papers

A. COMPLETING THE FERTILITY TRANSITION: THE CASE OF ARGENTINA Edith Alejandra Pantelides

Ms. Pantelides presented an overview of past demographic trends in Argentina and speculated about the future. The level of fertility in Argentina toward the end of the 19th century was about 7 children per woman. Fertility began to decline during the early 20th century, falling to 3.2 children per woman for 1940-1945. The total fertility rate remained nearly constant at this level for the next 40 years. A slow decline to 3.0 children per woman for 1965-1970 was followed by a sharper rise to 3.4 children per woman in 1975-1980. Secular decline appears to have resumed after 1975, with fertility falling to 2.6 children per woman for 1995-2000. Argentina's demographic transition was unusual in that mortality decline occurred more or less simultaneously with fertility decline. There was no pronounced and sustained rise in population growth rates during the period of fertility decline. There is no national level contraceptive prevalence data, but local surveys suggest that knowledge of contraception is very high among young men and women. Use of contraception is probably widespread. A rise in fertility after 2000, such as was observed after 1970, appears unlikely. The social and economic landscape of Argentina is changing rapidly and in previously unexplored directions, but the long history of fertility decline has established norms and behaviours that have a strong inertia. Fertility will probably continue to decline, but the persistence of positive values regarding family and parenthood will probably maintain fertility at above replacement level for another 10-15 years, as shown by the medium variant United Nations projection.

B. HOW LONG WILL IT TAKE FOR BANGLADESH TO REACH THE REPLACEMENT-LEVEL FERTILITY? *Mizanur Rahman and Julie DaVanzo*

Fertility in Bangladesh declined from over 6 children per woman in the early 1970s to 3.4 children per woman in 1992. During the 1990s, however, the decline may have stalled, for surveys in 1995 and 1998 both show a total fertility rate of 3.3 children per woman. This paper explores the possibility of renewed fertility decline in Bangladesh. More specifically, it asks how long it might take, and what conditions might be required, for fertility to fall to replacement level. The approach is to ask whether there is any group of women in the country which has already reached replacement level. Calculation of total fertility rates for three educational attainment of women categories and three household economic condition categories from Matlab Demographic Surveillance System data shows that women with secondary education had below replacement level fertility for 1995-1998 in all three household economic condition categories. Female educational attainment has increased very rapidly over the past three decades. The future trend of female educational attainment was projected, taking account of household economic condition because this influences access to education. Future total fertility rates are calculated from the projected distribution of educational attainment, assuming in effect that the changing composition of women by educational attainment is the only factor influencing fertility. This calculation indicates that fertility in Bangladesh would fall to about 2 children per woman by 2025. This is consistent with the medium variant United Nations projection for Bangladesh in the 2000 Revision. Since future fertility may be influenced by other factors, including improved supply of family planning services and rapidly changing socioeconomic conditions, this projection may be conservative.

C. WHAT WILL HAPPEN TO BRAZILIAN FERTILITY? Ana Maria Goldani

Despite the absence of an official family planning policy, fertility in Brazil fell from over 6 children per woman during the early 1960s to 2.2 children per woman in 2000. This decline came with a rise in

female sterilization among young, married women, which rose from near zero to 39 per cent in 1996. Despite the efforts of the women's movement and attempted initiatives in public family planning services, Brazilian women in the 1990s continue to face a dramatic choice, to get sterilized or to risk a unwanted pregnancy that must either be continued or clandestinely aborted. Brazilian demographers expect fertility to fall below replacement during the next decade, a survey conducted by the author found, but there were divergent views on the rate of decline, on how low fertility would fall, and on the prospects of a return to replacement level fertility in the future. All those surveyed thought, however, that fertility would remain at below replacement levels for the next 50 years. The medium variant United Nations projection for Brazil given in the 2000 Revision is overly cautious about the speed of fertility decline, with total fertility rates higher than expected by Brazilian demographers. The medium variant gives a 2050 population for Brazil of 247 million persons, 40 million more than a recent population projection for Brazil produced by the United States Bureau of the Census. The future level of fertility in Brazil will be influenced by the availability of family planning services, by Government policies affecting women families, and by the progress of gender equality. Gender equality may be the key to avoiding persistent below replacement fertility.

D. INDIA'S CHANGING DATES WITH REPLACEMENT FERTILITY: A REVIEW OF RECENT FERTILITY TRENDS AND FUTURE PROSPECTS *P.N. Mari Bhat*

Mr. Mari Bhat reviewed current levels and trends of fertility in India at the state and national level and suggested on this basis when India is likely to reach replacement level fertility. Analysis of fertility trends in 16 major states of the country suggests that they may be fit by a Gompertz curve. A fitting procedure taking account of the possibility of changing completeness of the Sample Registration System (SRS) provided parameter estimates indicating that the pace of fertility decline in the northern states is not inherently slower than the pace of decline in the southern states. Fertility in the southern states is lower because the decline there began earlier, and perhaps also from a lower level. Fertility in India is declining because couples are adopting the idea of having only a few children but investing more family resources in their future. More than half of recent fertility decline is due to smaller families among illiterate women. Illiterate women are sending more of their children to school, especially first born daughters, who are released from the burden of taking care of younger siblings. Three points should be observed when projecting fertility for India: base period fertility should be adjusted for under enumeration of births in the SRS; an S-shaped curve, such as the Gompertz, should be used in preference to a linear decline; and because of vast regional differences, total fertility rates (TFRs) should be projected at the state level and the all-India TFRs derived as weighted averages of the projected values for the states. Using a corrected TFR of 3.4 children per woman for 1997, estimated values of the Gompertz parameter b, representing the pace of fertility decline, and a lower TFR limit of 1.7 children per woman, the all-India TFR is projected to decline to 2.14 children per woman for 2016-2020.

E. ON THE FUTURE OF HUMAN FERTILITY IN INDIA *Tim Dyson*

Mr. Dyson discussed the trend and level of fertility in India during the coming decades. Before turning to specifics, however, he addressed two general questions. First, what explains fertility decline? Second, why do some countries have below replacement fertility? The answer to the first question is *mortality decline*. Confronted with a major fall in the death rate, no society can sustain a total fertility rate (TFR) of five or six births per woman for more than a few decades. Many social, cultural and economic factors influence the timing and pace of decline, but the fundamental cause of all fertility transitions is mortality decline. The answer to the second question is that, because of mortality decline, *women become more like men*. In high fertility, high mortality societies, women's relatively short lives are dominated by bearing and rearing children. Fertility decline opens up completely new educational and employment

possibilities for women. It becomes possible for women to lead lives largely independent of men. Below replacement level fertility is a direct consequence of initial decline of fertility from the levels required to sustain populations exposed to high mortality. Only a fundamental renegotiation of gender roles, in which *men become more like women*, with respect to childrearing roles in particular, is likely to alter the tendency to below replacement fertility.

When considering future fertility in India it is important to estimate and project fertility at the state level and aggregate results over states to obtain national level projections. Because of the great differences between states, national projections based on national level data will show a slower pace of fertility decline than national projections aggregated from state level projections based on state level data. Total fertility is falling in virtually all of India's states. It is unlikely, in any state, that the TFR will stagnate for long at a level substantially above replacement level. While interventions in some states may accelerate this decline, the declines are on balance probably better regarded as having a momentum of their own. For the core northern states like Bihar and Uttar Pradesh, sustained levels of below replacement level fertility are probably several decades off, and fertility levels in the north may remain higher than those in the south. An all–India TFR projection derived from state level TFR projections shows fertility declining to 2.1 children per woman during 2016-2020.

F. CAUGHT IN TRANSIT: QUESTIONS ABOUT THE FUTURE OF INDONESIAN FERTILITY *Terence H. Hull*

Attempts to predict future fertility in Indonesia are frustrated by the lack of reliable demographic data. The quality of the 2000 population census was impaired by budget cuts, and governmental decentralization plans implemented in 2001 are problematic for data collection. Nonetheless, available data indicate a continuation of key demographic trends. Contraceptive prevalence, age at marriage, educational attainment and female labour force participation continue to rise in the face of dramatic economic decline. As of 1995-1997, fertility was estimated to be 2.8 children per woman, only 0.6 children per woman above replacement level. Some Indonesian observers fear that poor women will "retreat into childbearing" in the face of economic crisis and diminishing alternative opportunities. The poor may reject this option, however, because they still desire education for their children and see economic problems as barriers to be overcome by investing more in each child. The thinking of individual Indonesians has changed in ways that imply moderate to low fertility, but whether fertility will be moderate or low depends on the context in which they live. Prediction of future fertility therefore requires predicting future society. With Indonesian observers struggling to do this on an annual basis, 2050 seems an impossible distance to contemplate.

G. RECENT CHANGES AND THE FUTURE OF FERTILITY IN THE ISLAMIC REPUBLIC OF IRAN Mohammad Jalal Abbasi-Shavazi

Mr. Abbasi-Shavazi reviewed population policies and fertility trends in the Islamic Republic of Iran over the past three decades, suggested possible explanations for declining fertility, and speculated about future fertility levels. Fertility in the Islamic Republic of Iran was over 6 children per woman during the early 1980s. By the end of the 1990s it had reached replacement level (2.26 children per woman). A comprehensive explanation of this decline must take account of its timing and pervasiveness. It began before the shift to an anti-natalist policy, and it was observed in all major population subgroups, old as well as young women, rural as well as urban areas, and in all provinces of the country. The family planning programme implemented in 1989 made an important contribution. By mobilizing various Government organizations and the mass communication network, the programme succeeded in diffusing ideas throughout the country about the value of small families and about methods of family limitation. Contraceptive prevalence rose from 37 per cent in 1976 to 72 per cent in 2000. The programme enjoyed the support of religious leaders, which legitimized it in the society at large. Declining infant mortality was a

factor as well. The infant mortality rate declined from 114 infant deaths per thousand births in 1975 to 34 per thousand in 1994. The establishment of a health network and its extension to rural and deprived areas was a key factor in reducing infant mortality. Economic hardship relative to material aspirations very likely played an important role as well. The cost of living has risen dramatically in recent years, and young people tend to delay marriage until they can get a salaried job. The increasing cost of rearing children, particularly the cost of education, is another important factor. There has been a convergence of fertility behaviour among major population groups, rural as well as urban women, illiterate as well as literate, poor as well as rich.

Will fertility in Iran rise again in the near future, level off, or decline further? Some believe that an end to economic hardship or the disappearance of inherently temporary "tempo" effects may prevent a further fall in fertility, or even result in an increase. Mr. Abbasi-Shavazi expects that fertility will continue to decline for some years. There is still a significant rural-urban differential, and several high fertility provinces. If the convergence observed in the past continues, fertility will decline in these provinces and the rural-urban differential will diminish. Simultaneously, the proportion living in urban areas will almost certainly increase. Educational attainment is rising rapidly, and children of all social classes, including the poor, have access to education. The level of female employment is still low, but it is likely to increase. The Government strongly supports reducing the number of births in the present decade. A two child policy ("*Two is enough*") is advertised everywhere, in bus stops, public spaces, cinemas, even on children's toys and chocolate boxes. Population and family planning is a compulsory unit for all university students. All the efforts focused on improving health promote family planning and reproductive health as well. In short, all of the main influences on the level of fertility appear to be moving in directions that will lower fertility further, though the decline may not be as rapid as in the past.

H. FERTILITY IN ISRAEL: IS THE TRANSITION TO REPLACEMENT LEVEL IN SIGHT? Dov Friedlander

Fertility patterns in Israel revolve around three major ethno-religious groups. The Jewish nonreligious group, whether of African, American, European or Middle Eastern origin, representing nearly 70 per cent of the population, had a total fertility rate of about 2.1 children per woman as of 1995-2000. Arab Moslems, about 15 per cent of the population, had a total fertility rate of 4 children per woman as of 1995-2000. The Jewish ultra-orthodox and National Orthodox population, constituting 12-15 per cent of the population, had a total fertility rate of between 6 and 7 children per woman as of 1995-2000. It is unlikely that the level of fertility for the first group will change enough to have a significant impact on fertility at the national level. It is Mr. Friedlander's view that the Moslem population has reached a kind of equilibrium between family size and social, economic and political opportunity. This view implies that the beel of fertility will change only if there is an equalization of opportunities between the Arab and Jewish populations. In the absence of such a change, no decline in Moslem fertility should be expected for the foreseeable future. The religious ideology of the ultra-orthodox Jews is strongly pro-natalist. The ultraorthodox population receives direct financial support for their independent educational system, generous child allowances for large families, and highly subsidized housing projects for young couples. It seems very unlikely that this will change. Mr. Friedlander's conclusion, therefore, is that Israel's national total fertility rate will remain in the range of 2.5 to 3 children per woman, probably closer to 3 children per woman.

I. COMPLETING THE FERTILITY TRANSITION: JORDAN, LEBANON, SYRIA *Riad Tabbarah*

Education is one of the most powerful factors for the reduction of fertility. The spread of education in the three Arab countries in question during the last three decades has been spectacular, but there is still some way to go to eliminate illiteracy and raise education attainment. Women's education, in

particular, has risen spectacularly, but except for Lebanon, gender differences still exist. Women's labour force participation has increased, but significant gender differences remain at all ages. These facts suggest that the fall in fertility that has taken place in the past few decades probably still has some way to go. Another important factor, globalization, has been increasing and this increase may be expected to continue in the future. It is progressively reaching more remote areas in the three countries through modern communication. The economic benefits of globalization have lagged behind its social and cultural influences, however, and this also is likely to continue in the future, creating further pressure on perceived inadequacy of income. Other important factors include rising female celibacy and rising divorce rates. With continued "modernization" and globalization these trends are likely to continue, so that total fertility will decline even if marital fertility remains constant. Considering all these factors, it may be considered fairly certain that fertility in all three of these countries will continue to decline for the foreseeable future. The more difficult question is how low fertility will fall. Among more educated persons in the three societies the two child ideal seems to predominate, so we may assume that this will be the eventual level of marital fertility. If it is assumed that total fertility will be 20 to 30 per cent less than marital fertility, the eventual level of the total fertility rate would be 1.4 to 1.6 children per woman. This is very similar to the level prevailing in some of the European countries.

J. KENYA'S FERTILITY TRANSITION: HOW LOW WILL IT GO? John Blacker

The total fertility rate (TFR) in Kenya as of the late 1970s was about 8 children per woman. Prior to this it had been rising steadily. At some time in the late 1970s or early 1980s there was an abrupt and dramatic change and fertility began to fall with unforeseen rapidity. The first evidence for this came from the 1989 Demographic and Health Survey (DHS), which gave a TFR of 6.7 births per woman for the 5-year period before the survey, more than one child per woman less than the level observed in the early 1980s. The 1993 DHS and the 1998 DHS gave total fertility rates of, respectively, 5.4 and 4.7 children per woman, both for the 3-year period before the survey. Taken at face value, these figures suggest that fertility continued to decline, but that the pace of decline was slowing, from 0.34 births per woman per annum between 1989 and 1993 to 0.14 births per woman per annum between 1993 and 1998.

With respect to the proximate determinants of this decline, most can be attributed to increased contraceptive use. The proportion of currently married women aged 15 to 49 years currently using a modern method of contraception increased from 10 per cent at the 1984 Kenya Contraceptive Prevalence Survey (KCPS) to 18 per cent at the 1989 DHS. Review of the other proximate determinants points to the conclusion that further reductions in fertility will be achieved principally as a result of increasing contraceptive use. Other proximate determinants might be effected by the HIV/AIDS epidemic, however. With respect to the somewhat nebulous concept of ideal family size, it has fallen in parallel with fertility, from 5.8 children per woman in the 1984 KCPS to 4.4 and 3.7 children per woman, respectively, in the 1989 DHS and the 1993 DHS. The 1998 DHS shows a leveling out, with an ideal family size of 3.8 children per woman over the next several decades. Whether this is above or below replacement level fertility (2.6 children per woman for 2000-2005) depends on the progress of the HIV/AIDS epidemic. Should life expectancy at birth fall as low as 45 years, replacement level fertility would rise above 3 children per woman.

Regarding the level of fertility as far into the future as 2050, Mr. Blacker noted, it was impossible to predict because of the possibility of long-term socioeconomic deterioration. The 1999 census of Kenya showed that mortality has increased, and not just because of AIDS. Schooling, housing and other social infrastructure in the country are deteriorating. Living levels are falling and poverty is rising. Should these trends continue, it is hardly conceivable that fertility would fall to 2.1 children per woman. Obviously it is to

be hoped that these trends reverse. But, Mr. Blacker said, since he could not predict the future of Kenyan society 50 or 75 years into the future, neither could he predict the level of fertility this far into the future.

K. SUR LES PAS DE L'EUROPE DU SUD: LA FECONDITE AU MAGHREB (FOLLOWING IN THE FOOTSTEPS OF SOUTHERN EUROPE: FERTILITY IN THE MAGHREB) *Youssef Courbage*

Mr. Courbage reviewed levels and trends of fertility in the five countries of the Maghreb (Algeria, Libya, Mauritania, Morocco and Tunisia) and considered the levels that may be reached in the future. Fertility in the Maghreb declined from 7.8 to 2.8 children per woman in a single generation, one of the most rapid fertility declines in the world. Increases in celibacy, age at marriage and contraceptive use played a role. So did rising female educational attainment, urbanization, and rising non-agricultural employment, though it would be misleading to claim that these were driving forces. Poverty resulting from economic crisis may also have contributed to the decline. Religion and population policies may be less important than many would expect. The contrast with the Arab Middle Eastern countries, which have experienced much less rapid fertility decline, is striking. Mr. Courbage suggested that a key factor was the geopolitical situation of the Maghreb. The influence of Western culture is quite strong. The educational systems in all countries except Libya have been heavily influenced by the French educational system. Foreign media have a strong presence in society at large. Extensive migration to Europe has created connections and a sense of affinity with European countries. In contrast, the Arab countries of the eastern Mediterranean are linked more closely to the countries of the Arabian Peninsula and the Persian Gulf. Mr. Courbage believed that fertility in the countries of the Maghreb will continue to decline, perhaps eventually to the levels currently observed in southern Europe. The current level of fertility for females who have high school or university degrees may be taken as a guide to the future level of fertility in each country.

L. FERTILITY IN MEXICO: RECENT TRENDS AND FORECASTS Rodolfo Tuirán, Virgilio Partida, Elena Zuniga and Octavio Mojarro

The authors examined levels, trends and differentials of fertility in Mexico over the past three decades and speculated about the future of fertility in coming decades. The total fertility rate (TFR) in Mexico reached a high of 7.2 children per woman in the early 1960s. The TFR fell at an accelerating pace from 1964 to the late 1970s, falling to just under 5 children per woman in 1978. The decline continued a decelerating pace, reaching 2.4 children per woman in 2000. Mexico has a population policy that aims to reach replacement level fertility by 2005. Three scenarios for future fertility change have been considered, one in which replacement level is reached in 2005, and two others in which this level is reached in 2015 and 2025, respectively. The first of these is most consistent with past trends. The second two scenarios imply an abrupt break from the pattern of past decline. Levels and trends in contraceptive use, age at marriage and other influences on the level of fertility support the first scenario. This leaves open the question of whether fertility behaviour will continue to change after replacement level fertility has been reached. The experience of many developed countries shows that fertility decline continues after replacement level fertility is reached. Among developing countries that began their fertility transition during the 1960s, 8 out of 39 countries have a total fertility rate equal to or below replacement level. It is anticipated that the TFR for Mexico could decline to 1.7 children per woman by 2030 and remain at this level until 2050.

M. FERTILITY TRANSITION IN NIGERIA: TRENDS AND PROSPECT Bamikale J. Feyisetan and Akinrinola Bankole

The authors argued that fertility transition in Nigeria has begun, identified some factors that have contributed to the decline, and considered how the transition will develop in the future. Total fertility rate

(TFR) estimates for Nigeria present numerous anomalies, but overall evidences indicates that fertility decline began during the mid-1980s from a level of about 7 children per woman, falling to 5.2 children per woman for 1995-1999. The prospects for future fertility decline were addressed by assessing two recent fertility projections; the 1997 projections produced by the National Population Commission of Nigeria and the 1998 Revision projections of the United Nations Population Division. The medium variant scenario of the National Population Commission projections shows fertility reaching a replacement level fertility of 2.2 children per woman around the year 2050. The United Nations 1998 Revision medium variant shows fertility falling to the same level by 2040. The authors considered it highly improbable that fertility in Nigeria would decline this rapidly. It would be more realistic, they thought, to anticipate a TFR of between 2.6 and 3 children per woman by 2050. Considerations supporting this conclusion include continuing high levels of infant and child mortality risks, with little hope for substantial improvement in the future; the HIV/AIDS epidemic; inadequate support for family planning programmes; and regional disparities in fertility decline.

N. FERTILITY DECLINE IN THE PHILIPPINES: CURRENT STATUS, FUTURE PROSPECTS Marilou Palabrica-Costello and John Casterline

The authors considered what factors (social, economic, cultural, programmatic) might facilitate or impede the decline of fertility in the Philippines from its current level to a national average of two births per woman over the next several decades. Fertility in the Philippines has experienced continuous decline from the 1950s to the present, but the total fertility rate (TFR) was above 3.5 children per woman in the mid-1990s. Unadjusted TFR estimates from the National Demographic Survey (NDS) indicate a slackening of the pace of decline between the 1980s and the 1990s and a slower rate of decline during the 1990s than the estimates given in the 2000 Revision of the United Nations *World Population Prospects*. To assess the likelihood that replacement level fertility will be reached during the next few decades the authors considered three factors: desired fertility, unwanted fertility, and changes in marriage patterns.

According to the 1998 National Demographic and Health Survey (NDHS), the wanted fertility rate for the country as a whole was 2.7 children per woman, more than 0.5 children above replacement level. The possibility that desired fertility might fall to replacement level over the next two decades cannot be dismissed out of hand, but the probable future influence of the economy, of cultural values, and of institutional factors and policy instruments suggest that this is unlikely. Survey data show unwanted fertility rising from 16 per cent in 1993 to 18 per cent in 1998. Induced abortion is both illegal and relatively unavailable in the Philippines, and the authors do not expect this to change in the foreseeable future. There are significant programmatic, social, cultural, and economic barriers to contraceptive use. Traditional methods constitute a far higher proportion of all contractive use in the Philippines than in most countries. Contraceptive discontinuation rates remain high, and increased between 1993 and 1998. If desired fertility were to fall to replacement level, couples would be exposed to even longer periods of risk of unwanted pregnancies. With respect to marriage patterns, it seems unlikely that permanent celibacy will increase during the next few decades. The average age at first marriage has been relatively stable in recent decades. While a two or three-year increase is possible, there is at present no evidence that such an increase will occur.

In concluding the authors noted several influences on future fertility. The total fertility rate in the Philippines is at present about 1.5 births per woman above replacement level, desired fertility remains above replacement level in all major segments of the population, and unwanted fertility is relatively high. These three influences tend to a slower rate of fertility decline. There is some prospect that changes in marriage patterns might contribute to further fertility decline, but there is no evidence that such changes are underway. The authors are led to the conclusion that it is unlikely that fertility in the Philippines will decline to replacement level over the next two decades.

O. FERTILITY TRANSITION IN SOUTH AFRICA Leon Swartz

Fertility in South Africa began to decline among all major population groups prior to the end of apartheid. This decline occurred in the face of impoverishment, inequality and disempowerment of women. This is in stark contrast to other parts of sub-Saharan Africa, where poverty has tended to be associated with high fertility. This paper investigates the factors contributing to the decline of fertility in South Africa. For South Africa as a whole, fertility was high and stable between 1950 and 1970, with an average of 6 to 7 children per woman. The fertility level as of 1999 was 2.9 children per woman. The Government began to provide strong support for family planning in the 1960s, and in 1974 launched the well-funded National Family Planning Programme. The results were impressive and unprecedented in sub-Saharan Africa. By 1983 over half of all eligible women were practicing contraception. South Africa's programme was conceived and implemented by a minority white Government intent on slowing the growth of the majority black population, but many black women adopted family planning despite the nature of the programme. Various factors converged to create a situation where women had to accept primary responsibility for childrearing without access to productive resources. Their response was to control their fertility, not as a result of educational and career aspirations or an affluent lifestyle, but as a survival strategy. Fertility is still valued highly in South Africa, as it is in the rest of sub-Saharan Africa. Despite relatively low fertility, the high levels of unwanted and teenage pregnancies and the high unmet need for contraception are major concerns. Many women still lack control over their reproductive choices.

P. ON THE PROSPECTS FOR ENDLESS FERTILITY DECLINE IN SOUTH ASIA Alaka Malwade Basu

Global fertility *decline*, meaning the decline of fertility in most or all countries of the world, should not be confused with global fertility *convergence*, meaning the decline of fertility to a common level in most or all countries. Global fertility decline is underway, but geographical and cultural variation will temper the move to global fertility convergence for many decades to come. This contention is supported both by the differences between fertility in the developing world and by the wide range of variation in the proximate determinants of fertility, including marriage, contraceptive use, and abortion. Ms. Basu's paper used lessons drawn from this variation to argue that future fertility in South Asia might not fall to the very low levels observed in many more developed countries today.

Studies of the proximate determinants of fertility decline in developing countries typically distinguish between rising age at marriage and declining fertility within marriages, but the experience of developed countries suggests that increases in the level of non-marriage may be more important than changing age at marriage. High levels of non-marriage, as much as low levels of marital fertility, may be responsible for the very low total fertility rates observed in some developed countries. High levels of non-marriage are probably still many decades away in South Asia. This will restrain future fertility decline in the region.

It is also important to consider the distribution of marital fertility by the number of children born to families. The implications of a decline in marital fertility that results from a decline in proportion of families with large numbers of children may be very different from the implications of a decline resulting from a rise in the proportion of couples with no children. The experience of the United States and of European countries suggests that sustained below replacement fertility requires a relatively high level of childlessness within marriage. Based on cultural imperatives in South Asia, it is most unlikely that there will be a significant rise in voluntary childlessness within marriage. The ideological change that accompanies a move from larger to smaller families is compatible with existing norms governing family life. A move from

small families to voluntary childlessness is not compatible with these norms. This move would require a normative shift inconsistent with existing trajectories of development, education and modernization.

Regarding the pace of fertility decline, it need not be uniform throughout the transition. There may be periods where the decline slows or ceases while certain influences or enabling conditions "catch up". In the case of India, for example, women may be perfectly willing to have fewer than 4 or 5 children, given falling infant and child mortality and readily available contraceptive services, but unwilling to forego the one son, or preferably two sons, that they consider essential for economic, social and spiritual reasons. The level of fertility in India may therefore stagnate for a time at around 3 children per woman while education and modernization supporting smaller numbers develop. The recent stagnation of fertility decline in Bangladesh supports this idea. In conclusion Ms. Basu cautioned that medical technology might allow South Asian patriarchal fertility demands to be met even with rapid fertility decline by allowing a preponderance of sons to be born.