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First Choice Session: The Demography of Asia

Organizer: Vipan Prachaubmoh

Second-Choice Session: The Causes of Low Fertility

Organizer: Roderic Beaujot

Author: Bunnak Poch

Affiliation: Population Research Center, National Opinion Research Center (NORC) and the

University of Chicago, and Royal University of Phnom Penh, Cambodia

Contact: Bunnak Poch, Population Research Center, 1155 E. 60<sup>th</sup> Street, Chicago, IL 60637.

Email: { HYPERLINK "mailto:Bunnak@uchicago.edu" }

Title: Cambodia Current Fertility: The Contextual Effects

**Extended Abstract** 

Cambodia remains one of the few countries in South East Asia with high fertility, with a TFR of 4.0 in 2000 (CDHS 2002). The current high fertility has created concerns among the government, policy makers, and both national and international scholars, and led to the take-off of Cambodia's first National Population Policy in February 2004, expected to curb rapid population growth through moderating the birth rate, promoting birth spacing and contraceptive use, and reducing infant mortality (UNFPA 2004a; UNFPA 2004b).

Births histories from the 2000 Cambodia Demographic and Health Survey (CDHS) show a rather precipitous decline, with period age-specific fertility adding to only 4.0 lifetime births per woman, whereas the 1998 census estimate based on the own-child method yields 5.3 lifetime births per woman. Given the contemporary onset of fertility decline, identifying the determinants of fertility decline is of a greater priority than measuring the speed and the magnitude of the decline itself, especially for the country like Cambodia where use of contraception is very limited (Dasvarma and Neupert, 2002). This represents the primary objective of the current study. It argues that fertility decline is possible because of social change associated with social development that induces to behavioral change, including fertility, everything else being equal.

Focusing on the contextual factors attributed to fertility decline is important for two reasons in the Cambodia context of change of fertility behavior. First, there has been no study on social causes of fertility decline in Cambodia due to lack of fertility data. Second, Cambodia has undergone dramatic social changes following the KR regime, including the Vietnamese withdrawal in the late 1980s and the swift from centralized politico-economy to free market economy and political pluralism that led to the UN-sponsored national election in 1993 and subsequent elections. These changes entail demands for human resources, increased opportunity for women to participate in the paid labor market, compulsory schooling of children at the primary education, and social recognition of the status of women and children. Thus, this study is expected to have major contributions to the development of population policy aiming the influence of social change beyond and above the individual characteristic of women and their spouses.

The theoretical background for the study was taken for the classical Demographic Transition, economic theory of fertility decline, and the spread of mass education (Caldwell 1980). Its primary research questions are as follows. Does social change during the 1990s have impact on women's fertility behavior? Does increase in women's status have impact on women's fertility behavior? Do the spread of mass education and the decline in children's economic contribution to the family affect women's fertility behavior? To what extent do individual characteristics explain the variation in fertility behavior?

Taking advantage of the currently available CDHS data, the current study investigate two main factors assumed to influence fertility behavior among Cambodia married women. These factors are contextual (women's status, the spread of mass education and change in the economic role of children, infant mortality, and delaying marriage) and individual (women's education and occupation and husbands' education), with age at first marriage, gender and parity of surviving children, and contraceptive use being controlled.

The results indicate show a persistent high period-specific marital fertility (PSMF) for women age 15-29 over the last two decades, fluctuating between 200 and 250 births per 1000 women-years. On the contrary, PSMR for women age 30-44 decreases from more than 400 births per 1,000 women at risk in the post-war period to 150 births per 1,000 women at risk

in late 1990s. This means that the slight and observable decrease in Cambodia fertility (from TFR of about 5 to about 4 during the 1990s as reported in the government reports and the above studies on Cambodia fertility) is attributed to the decline in fertility among older women only.

Current fertility, measured as an index of number of children a woman would have during 1997-2000, was regressed separately for younger (age 15-29) and older (age 30-44) cohorts on selected contextual and individual variables, controlling for available proximate determinants. The OLS regression results show that the selected contextual factors are as important as individual variables in predicting current fertility. Of the total variance in current fertility explained by the selected three sets of predictors, the contextual factors account for about 12% among younger married women, while the individual factors account for about 28% and the proximate determinants account for about 60%. These percents are 17%, 18%, and 65%, respectively, for older women.

Increasing women's status and declining children's economic role significantly suppress current fertility for both younger and older cohorts, controlling for the effects of individual and control factors in the model. Among the individual factors, however, education has significant effect only for younger cohort, suggesting that moving beyond primary education is a possible solution for lowering fertility among younger women. Furthermore, women of both cohorts with non-agricultural occupation exhibit much lower fertility than do unemployed women or agricultural workers. Contraceptive use remains critical in lowering fertility.

The results also show that current fertility among married women aged 30-44 is strongly affected by age at first marriage and parity. Unlike fertility behavior for women from the younger age cohort, women from the older cohort tend to continue to have childbearing when they were married at older age, suggesting that delaying marriage is compensated by later childbearing. Furthermore, the effect of number-gender composition of surviving children indicates a tendency towards a preference for a mixed sex composition of children. Family planning policy makers should consider development factors beyond socioeconomic characteristics of couples in lowering fertility in Cambodia. Further discussions and implications for family planning policy are provided.

## References:

Caldwell. 1980. "Mass Education as a Determinant of the Timing of Fertility Decline." *PDR* 6(2): 225-255.

Dasvarma, L. G. and R. F. Neupert. 2002. "Fertility in Cambodia." Paper presented at the 2002 IUSSP Regional Population Conference in Bangkok, Thailand, 10-13 June, 2002.

UNFPA. 2004a. "First Cambodia National Population Policy." Retrieved on April 03, 2004 (http://www.un.org.kh/unfpa/news/Poppolicy.htm).

UNFPA. 2004b. *Second Country Programme for Cambodia 2001-2005*. Retrieved on April 03, 2004 (http://www.un.org.kh/unfpa/country\_pgm/CP2.pdf).