

## Measures of widowhood in contemporary China

### **Background**

China is confronted with the fast ageing process since the strict implementation of family planning policies in early 1980s. According to the 2000 census, China is already an ageing society with people aged 60 and over exceeding 10 percent. Taking account of the magnitude of the population size, the absolute number of elderly is voluminous though the percentage is not as higher as that in some western countries. Moreover, the projected data show that till the mid 21<sup>st</sup> century, there will be over 430 million elderly people, taking up 22.3% of the world's total elderly population.

Among the elderly people in the 2000 census, the proportion of widows to female elderly people holds 41.68 percent, while that for widowers only accounts for 18.45 percent, which implies great gender differences in measures of widowhood and related indexes from a life cycle perspective.

The experience in America goes like this: with the rise in the number of widows and widowers, the proportion of widows to female population and widowers to male population, the mean age at widowhood and widowerhood, the mean period of widowhood increase too.

But how are things in China? How to explain the proportional difference between widows and widowers? These problems remain to be answered.

### **Objectives**

Using formulas which measure widowhood as a function of life table survivorship and age at marriage from a life cycle perspective and the 2000 census data on mortality and marriage, the paper aims to explore the effects of sex differences in ages at marriage, age gaps between spouse, mortality rates and life expectancies on the life cycle measures of widowhood.

First, I improve upon the formulas used by Myers(1959) and Goldman and Lord(1983) which measures widowhood and related indexes and adapt these formulas to China's census data. Second, Using China's 2000 census data and these formulas, I calculate the age-specific percent chance of women outliving her spouse, the overall

possibility and mean ages at widowhood and widowerhood, mean periods of widowhood and widowerhood and mean duration of marriage until death of either spouse. Third, since there are gaps in mortality levels and age at marriage between rural and urban areas, I calculate corresponding indexes for rural and urban population too. Fourth, I test the effect of different spousal age gaps and different ages at marriage on the possibility for women to outlive their spouses.

## **Methods**

The gender differences in widowhood, in considerable measures, could be explained by two principal factors, namely gender differences in mortality rates and age gaps between spouses. Using mortality and marriage data in the 2000 census, I develop Chinese life tables and calculate ages at marriages. Then applying the formulas developed by Myers(1959) and Goodman and Lord(1983), I obtain various indicators on widowhood such as mean age at and mean period of widowhood .

## **Results and conclusions**

The following results are obtained:

1. The possibility of a woman outliving her spouse accounts for 63.2 percent, with a mean age at widowhood of 66.9 years old and a mean period of widowhood of 16.5 years, the indicators for a man, i.e., the possibility of a man outliving his spouse, the mean age at and mean period of widowerhood hold 36.8 percent, 68.7 years old and 12.4 years.
2. Rural and urban people have different possibilities of a woman outliving her spouse, different mean ages at and mean periods of widowhood because of different mortality rates and spousal age gaps.
3. The changes of age at marriage holding age difference between spouses constant exert little effect on the possibility of a woman outliving her spouse. With age at marriage for grooms varies from 21 to 31 and 19 to 29 for brides, the possibility changes from 63.2 to 63.3 percent.
4. The spousal age gap has significant impact on the possibility. When age at marriage for grooms rises from 20 to 40 holding that for brides unchanged at 23,

the possibility of a woman outliving her spouse increases from 48.5 to 92.4 percent.

## **References**

- Goldman, N. and G. Lord. 1983. Sex differentials in life measures of widowhood. *Demography* 20(2): 177-195.
- Myers, R.J. 1959. Statistical measures in the marital life cycles of men and women. *International Population Conference, 1959*, pp. 229-233. Vienna: Christopher Reisser's Sons.