As the Demographic Window Closes: Challenges and Opportunities for Singapore

Abstract

Background. Singapore entered a demographic window of opportunity in the late 1970s and early 1980s as the baby boom cohort reached working age, and drastically lowered their fertility levels. This demographic window produced a "demographic dividend "(Bloom, Canning, and Sevilla 2003) which aided the dramatic economic development of the city State. The next twenty to thirty years will see an increase in the old age dependency ratio and a closing of this demographic window of opportunity. The task of the Government is to put in place appropriate policies to counter this imminent change in the population age structure. A high old age dependency ratio may result in a decrease in economic productivity if appropriate policies do not exist to maintain the status quo. This paper discusses the policy implications of population aging in the areas of financial security, employment, living arrangements, and health care. Singapore is one of the fastest aging populations in Asia as a result of extremely successful family planning policies instituted in the 1960s and medical advances that have increased life expectancy (Saw 1999). As such, Singapore is an excellent case study of the effects of rapid aging on State policies. Currently 7% of Singapore's population is over the age of 65, however, by 2030 this will increase to 19% (Inter-Ministerial Committee on Aging Report 1999).

Age structural transitions affect supply and demand factors within a society, differentially putting pressure on key life cycle stages and consequently policies catering to the needs of populations at specific ages (Pool 2000). The family in Singapore is under increasing pressure to support its older members. As a result of below replacement fertility rates since 1977, the number of children available to support older parents has declined dramatically. The current generation of elderly in Singapore has an average of 4 children to support them. The next generation of elderly will have half or fewer that number. In the case of limited numbers of family members to support older parents, what role should the State play? The Singapore government continues to see the family as the main provider of support for the elderly. At the same time, policies for the aged are being revised to take into account changes in elderly characteristics over time. For example, future elderly will be more educated and have higher incomes.   Therefore, CPF investment opportunities are being expanded to allow for more individual decision-making. The raising of the retirement age is another indication that the government is interested in tapping the potential of elderly workers, and at the same time, promoting individual responsibility for financial support in old age.

Analysis and Data. This paper puts particular emphasis on the changing needs of the elderly *over time* and the need for policy makers to take these changes into account when developing policies for older adults. Given increases in life expectancy, the importance of changing needs within the span of "old age" (from age 65 onwards) becomes even more pertinent. Longitudinal data provide for more accurate projections of the changing needs of the elderly over time (Andrews and Hermalin 2000). I make use of panel data from the 1999 Transitions in Health, Wealth, and Welfare of Elderly Singaporeans: 1995-1999 to determine to make assessments of the changing characteristics of elderly over

time. The data were collected as part of a follow-up to the 1995 *National Survey of Senior Citizens.* In 1995, a representative sample of 4,750 individuals aged 55 and above were interviewed concerning a variety of issues including demographic characteristics, work and retirement, living arrangements and intergenerational support, income and assets, health status and behaviors, and involvement in voluntary activities and organizations. In 1999, NUS researchers attempted to re-interview as many of the original respondents as possible.[1] Although the initial 1995 survey was not designed as a longitudinal study, taking into account the mortality rate for this age group (4% per year) and other losses to follow-up (including moves and severe health impairments impeding interview), we managed to re-contact 42% of the original respondents. This resulted in a total sample size of 1977 older Singaporeans (59+).

In order to adjust for panel attrition we calculated a weight adjustment based on the estimated probability of non-response derived from a multivariate regression model including age, sex, ethnicity and marital status as the predictors of non-response. The original (baseline) sample weight was multiplied by this weight adjustment in order to obtain the panel sample weight. This adjusted weight was then normalized to ensure that the weighted sample size is equal to the actual sample size, by dividing by its mean. (Full details of the weighting procedure and model specification can be found in Ofstedal et al., *forthcoming*).

Results. In terms of financial security, the current generation of elderly has minimal amounts (less than $5,000) in their CPF accounts. Over time, the amount of actual income received by elderly varies significantly, as does the perception of income adequacy. This points to the need for policies that are sensitive to the changing financial needs of the elderly over time rather than viewing these needs as static. The longitudinal data also reveal changes in living arrangements over time although the changes are not as dramatic as those for income. A significant amount of this change in living arrangements is the result of adult children leaving the home.

With regards to employment among this current generation of elderly, the majority retired during the two waves of the survey. We do see, however, an increasing percentage of elderly persons who are not working but looking for work. This suggests that policies aimed at hiring older workers will be well received by the elderly themselves in future. The success of these policies, however, requires a change in mindset among many employers who retain ageist attitudes.

Analysis of self-reported health status among this elderly cohort reveals large declines in health status that occurred between 1995 and 1999. Declines in health status are significantly correlated with a lack of formal education, lower income, and a lack of social support. These findings suggest sub-groups of elderly that require special attention with regards to health care.

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[1] This research project was a collaborative effort between researchers at the National University of Singapore, the Ministry of Community Development and Sports (Singapore), and the Population Studies Center of the University of Michigan (USA).

The findings reveal a substantial amount of change in elderly individual's economic status, employment status, living arrangements, and health status, over time. These results point to the need to develop policies that cater to specific sub-groups of elderly persons. The implementation of uniform policies across all ages of elderly runs the risk of neglecting needs of specific sub-groups over time. The formulation of age-specific policies requires an in-depth understanding of the processes that occur during old age. This includes understanding how individual processes interact with the family and society. This can be achieved through the analysis of longitudinal data that provides information on individual changes over time.