

# Demographic Change and the Living Arrangements of the Elderly: The Case of Brazil

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## Background

A 2005 report by the United Nations on the living arrangements of the elderly around the world found a decline in co-residence with adult children and an increase in independent living arrangements.

This trend is usually attributed to both a decline in family size and a general secular shift from extended to nuclear families.

However, previous studies have mostly assumed the declines in the birth rate as evidence for decline in the family size of the elderly. It is not fully taken into account: 1) that declines in the birth rate in a given year are likely to reflect in changes in the family of the elderly only many decades later; and 2) that mortality decline may at first increase the average family size.

## Objectives

1) Calculate the trend in the average number of living adult children per elderly women (aged 65-69) in Brazil from 1970 to 2009.

2) Estimate the impact that future declines in the number of children of elderly women may have on levels of intergenerational coresidence over the next 25 years.

## Data and Methods

Data are from the 1970 to 2000 Brazilian demographic censuses and the 2009 Brazilian National Household Survey (PNAD).

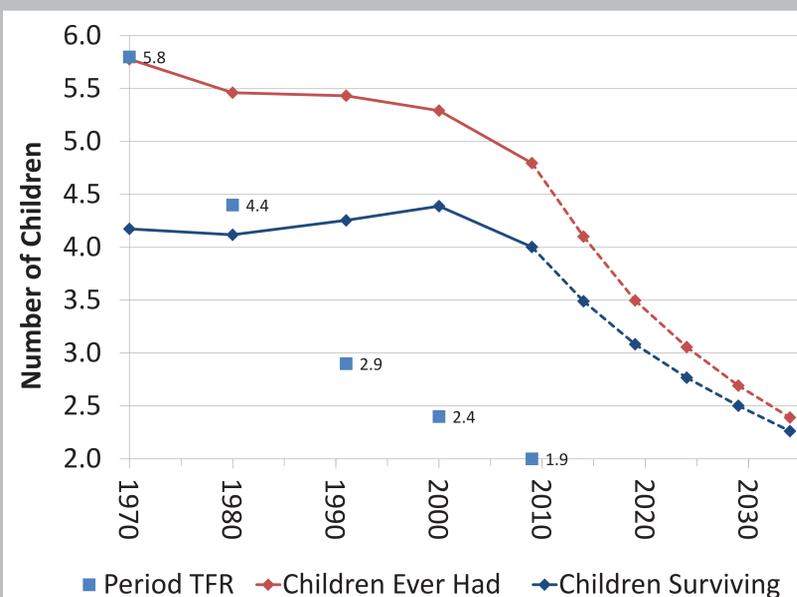
The proportion of elderly women coresiding with at least one of their adult children in a given year  $t$  ( $PC_t$ ) is decomposed into the relative distribution of the family sizes of women in that year ( $c_{i,t}$ ) and the rates of coresidence among women of different family sizes  $i$  ( $r_{i,t}$ ):

$$PC_t = \sum_i (r_{i,t} \times c_{i,t})$$

Information on women aged 40 to 64 in 2009 is used to predict trends in family sizes in the following 25 years.

Two scenarios are estimated for 2034: a)  $r_i$  schedule constant at its 2009 level, and b)  $r_i$  schedule changing at the average pace observed in the 1990s and 2000s.

### 1) Changes in family size: 1970 to 2034



- The period fertility rate (TFR) declined sharply from 5.8 children per women in 1970 to 1.9 in 2009.

- The sharp decline in fertility levels started to reflect on the family size of elderly more significantly only after the 2000s.

- At the same time that period fertility declined, family size was increasing slightly due to past declines in mortality rate.

- The period from 2009 to 2034 will be one of unprecedented decline in the family size of elderly women in Brazil.

## Conclusions

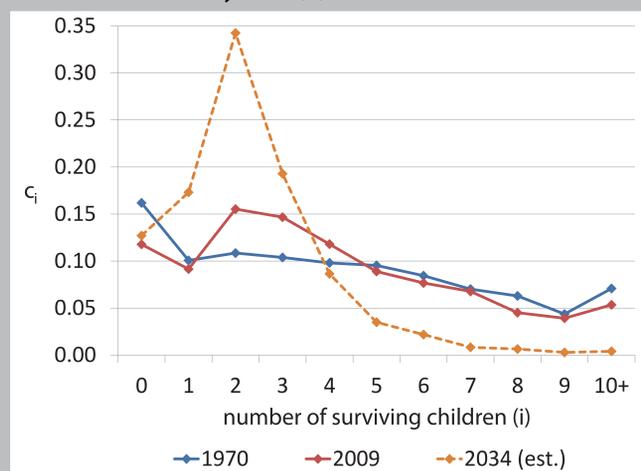
Although fertility levels declined fast in Brazil during the last four decades, for the most part this process has not yet affected the average size of the pool of children elderly women can coreside with.

Yet, the next 25 years will bring a drastic change in the size of the family of the Brazilian elderly.

The impact of this process on the general well-being of Brazilian families will depend on the underlying reasons for intergenerational coresidence. On the one hand, if the coresident adult children are sources of support to their parents, less children may mean less resources the elderly can count on. On the other hand, if the elderly are providing personal and financial support to the younger generations, less children may mean a reduction on the burden placed on the older generations and more resources per coresiding adult child.

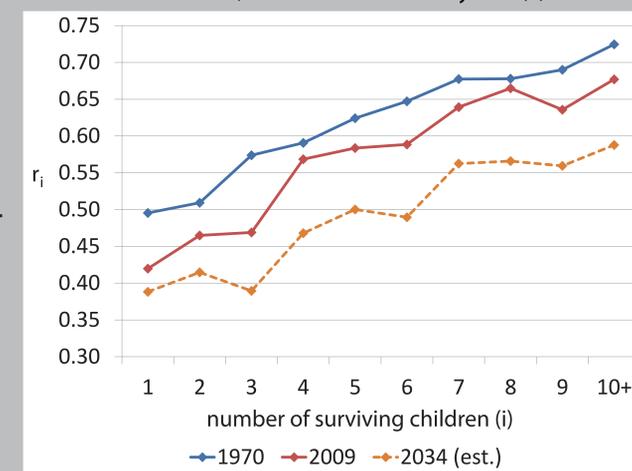
### 2) Decomposing the change on intergenerational coresidence

Distribution of family sizes ( $c_i$ )



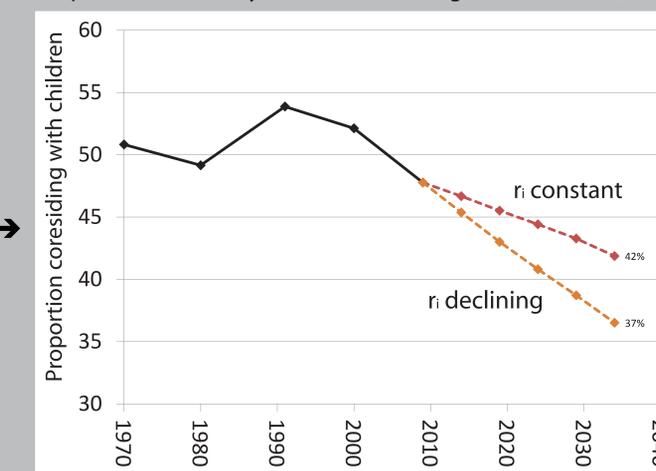
- A decline in the proportion of childless women helped increase family size after 1970.
- Large families still prevalent in 2009. But by 2034 they will be rare.

Rates of coresidence, conditional on family size ( $r_i$ )



- Family size matters: women in larger families are significantly more likely to coreside with an adult child at old age.
- Coresidence is common even among small families: over 40% of women with one child coreside with that child.

Proportion on elderly women coresiding with children (PC)



- After increasing in the 1980s, intergenerational coresidence started declining in the 1990s.
- If the secular trends is maintained, the proportion of women coresiding with their adult children will decline from its high of 54% in 1990 to 37% in 2034.