Temporal-spatial patterns of one-person households in the Philippines, 1990-2010

Extended abstract

Background

Several demographic and socioeconomic changes have swept the Philippines in the past few decades, including declining fertility, increasing age at marriage and improvement in life expectancy. These changes will impact the size and composition of households, but there are limited studies that examine how demographic and socioeconomic factors are related with the increasing prevalence of one-person households (OPH) in the Philippines.

Objectives

This paper examines the temporal-spatial patterns of OPH in the Philippines between 1990 and 2010. Specifically, it 1) investigates the changes in the prevalence and composition of OPH; 2) assess the geographic variation in the prevalence of OPH over time; and 3) examine the demographic and socioeconomic factors associated with the changes in OPH.

Data and Methods

Data for this analysis are drawn from the 1990, 2000 and 2010 Census of Population and Housing (CPH) in the Philippines. These censuses collect information from household and institutional population. A household in the Philippines is defined as "a social unit consisting of a person living alone or a group of persons who sleep in the same housing unit and have a common arrangement in the preparation and consumption of food" (National Statistics Office 2010: 20). Institutional population refers to those who live in group quarters such as dormitories, hospitals, retirement homes, prisons and convents. The proportion of the Philippine population who live in institutions is less than one percent, hence this study focuses only on the household population.

There are more than 1000+ municipalities/cities in the Philippines nested within 80+ provinces and 17 regions in the census data. We aggregated individual-level data into municipal/city level, provincial and regional-level data. We also analysed the demographic and socioeconomic characteristics of the population at the regional level to contextualize the spatial differences in the prevalence of OPH in the Philippines. We examine the data at the provincial level for better visualization of the spatial and temporal changes in the levels of OPH in the country. For the multivariate analyses, we used municipal/city level data to examine the demographic and socioeconomic factors associated with the changes in the prevalence of OPH across time and space. Fixed-effects models are used to examine how these contextual factors are associated with the changing prevalence of OPH.

Results

Prevalence of Filipinos living in OPH by demographic and socioeconomic characteristics

Table 1 presents the overall prevalence of Filipinos living in OPH and the differentials across several demographic and socioeconomic characteristics. It shows that the proportion of Filipinos living alone slowly increased from 1% in 1990 to 2.2% in 2010. Although this prevalence is relatively low, there are wide variations across several characteristics. For instance, the prevalence of OPH in 2010 among Filipino women aged 18-34 was less than 1% but it reached 8% among women aged 60 years old and over. There are also notable sex differences in the prevalence of OPH. Overall, there is a higher proportion of men than women who live in OPH among the young (18-34) and middle-age (35-59) groups, but there are more women than men who live alone among older people. Living in OPH is also more common among those who have been formerly married compared to other marital status groups. The prevalence of OPH in 2010 was less than 1 percent among those who are currently in union and 3.8% among those who have never been married. In contrast, the corresponding proportions among those who are separated/divorced and widowed were 9.7% and 12.6%, respectively. There are also small but significant education differences in the prevalence of OPH. For example, the prevalence of OPH in 2010 among those with below primary education was 3.7%, while it was 2.2% among those with university education. Being an internal migrant is also associated with a higher propensity to live alone. There is a little albeit inconsistent urban-rural differentials in the prevalence of OPH in the Philippines. This could be due to the inconsistent definitions of urban and rural areas in the Philippines censuses over time.

Table 1. Prevalence of Filipinos living in OPH, 1990-2010

	1990			2000			2010		
	Male	**Female**	**Both sexes**	**Male**	**Female**	**Both sexes**	**Male**	**Female**	**Both sexes**
Age group									
18-34	0.6	0.3	0.4	1.0	0.4	0.7	1.5	0.7	1.1
35-59	1.1	0.8	0.9	1.9	1.0	1.5	2.7	1.4	2.0
60+	3.2	5.6	4.4	4.6	6.6	5.7	5.8	8.1	7.1
Marital status									
Never married	1.7	1.3	1.5	2.7	1.9	2.3	4.5	2.9	3.8
Married	0.3	0.1	0.2	0.6	0.1	0.4	0.6	0.2	0.4
Cohabiting	0.6	0.7	0.6	0.5	0.2	0.4	0.3	0.2	0.2
Separated/divorced	13.1	3.8	6.9	13.7	4.1	7.7	18.8	4.8	9.7
Widowed	10.6	6.9	7.7	12.8	8.8	9.8	18.1	11.0	12.6
Education									
Below primary	1.5	2.1	1.8	2.5	3.1	2.8	3.4	4.1	3.7
Primary	0.9	0.6	0.7	1.5	1.0	1.3	2.3	1.9	2.1
Secondary	0.8	0.5	0.7	1.4	0.8	1.1	2.2	1.2	1.7
University	1.1	0.9	1.0	1.9	1.3	1.6	2.5	1.9	2.2
Internal Migration status									
Migrant	1.7	0.9	1.3	2.6	1.3	1.9	5.3	2.9	4.0
Non-migrant	1.0	1.0	1.0	1.5	1.3	1.4	2.4	1.9	2.1
Place of residence									
Urban	1.0	0.9	1.0	1.5	1.2	1.4	2.7	1.9	2.3
Rural	1.1	1.1	1.1	1.6	1.4	1.5	2.3	1.9	2.1
Total	1.0	1.0	**1.0**	1.7	1.3	**1.5**	2.5	1.9	**2.2**

Two-way fixed-effect regression models (Municipality-level)

We performed several fixed effects regression analyses at the municipal level to examine the contextual factors associated with the spatial and temporal changes in the prevalence of OPH. Table 2 presents the results of the fixed-effect regression models predicting the changes in municipal-level percentages of different types of OPH between 1990 and 2010 in the Philippines. The dependent variables are the prevalence rates of various types of OPH (e.g. overall OPH, married OPH and unmarried OPH) between 1990 and 2010 in a particular municipality. The independent variables are the percentages of different demographic and socioeconomic indicators aggregated at the municipal level between the three periods (N =3,816 municipality-year). The regression coefficients indicate the change in the municipal level prevalence rates of OPH associated with one percentage-point change in the independent variables, controlling for municipal-and time-fixed effects. The regression models show that several demographic and socioeconomic indicators are associated with the changing prevalence of OPH between 1990 and 2010. Specifically, one percentage-point increase in the proportion of young people is associated with a 0.045 decline in the overall prevalence of OPH. In contrast, an increase in the proportion of older people is related to 0.53 percentage-point increase in the overall level of OPH. The increasing marriage delay among Filipino youth is associated with a decline in the overall prevalence of OPH, while the rise in the proportion of Filipinos engaged in non-manual occupations is associated with an increase in the overall levels of OPH. Furthermore, increasing urbanization and the rise in owner-occupied housing units are associated with a decline in the overall prevalence of OPH. Meanwhile, internal migration is not related with change in the overall prevalence of OPH in the Philippines. The relationship between the foregoing contextual factors and the overall prevalence of OPH is also replicated in both types of one-person household (e.g. married and unmarried OPH), with some exceptions. Specifically, the effect of the proportion of young people on the prevalence of married OPH and the relationship between urbanization and the levels of unmarried OPH, did not emerge as significant in the multivariate analyses.

Table 2. Fixed-effect models: Municipal-level population living in one-person households in the Philippines, 1990–2010

	Δ % of all one-person households		**Δ % of married-OPH**		**Δ % of unmarried-OPH**	
	Coef.	**p**	**Coef.**	**p**	**Coef.**	**p**
Δ % of children (aged below 15)	-0.045	0.004	0.004	0.598	-0.050	0.000
Δ % of older people (aged 60 and over)	0.526	0.000	0.056	0.019	0.474	0.000
Δ % of never married (aged between 25 and 35)	-0.028	0.000	-0.010	0.006	-0.017	0.002
Δ % working in non-agricultural occupations (aged 15 and over)	0.028	0.000	0.010	0.013	0.018	0.002
Δ % internal migrants (aged 15 and over)	-0.001	0.913	0.005	0.286	-0.006	0.411
Δ % urban population	-0.004	0.018	-0.002	0.002	-0.001	0.238
Δ % of households living in an owner-occupied housing units	-0.022	0.000	-0.010	0.000	-0.010	0.002

Reference

National Statistics Office [NSO]. (2010). The 2010 census of population and housing (CPH) enumerator's manual. Manila: NSO