Demographic Trends and Housing Patterns in the Philippines

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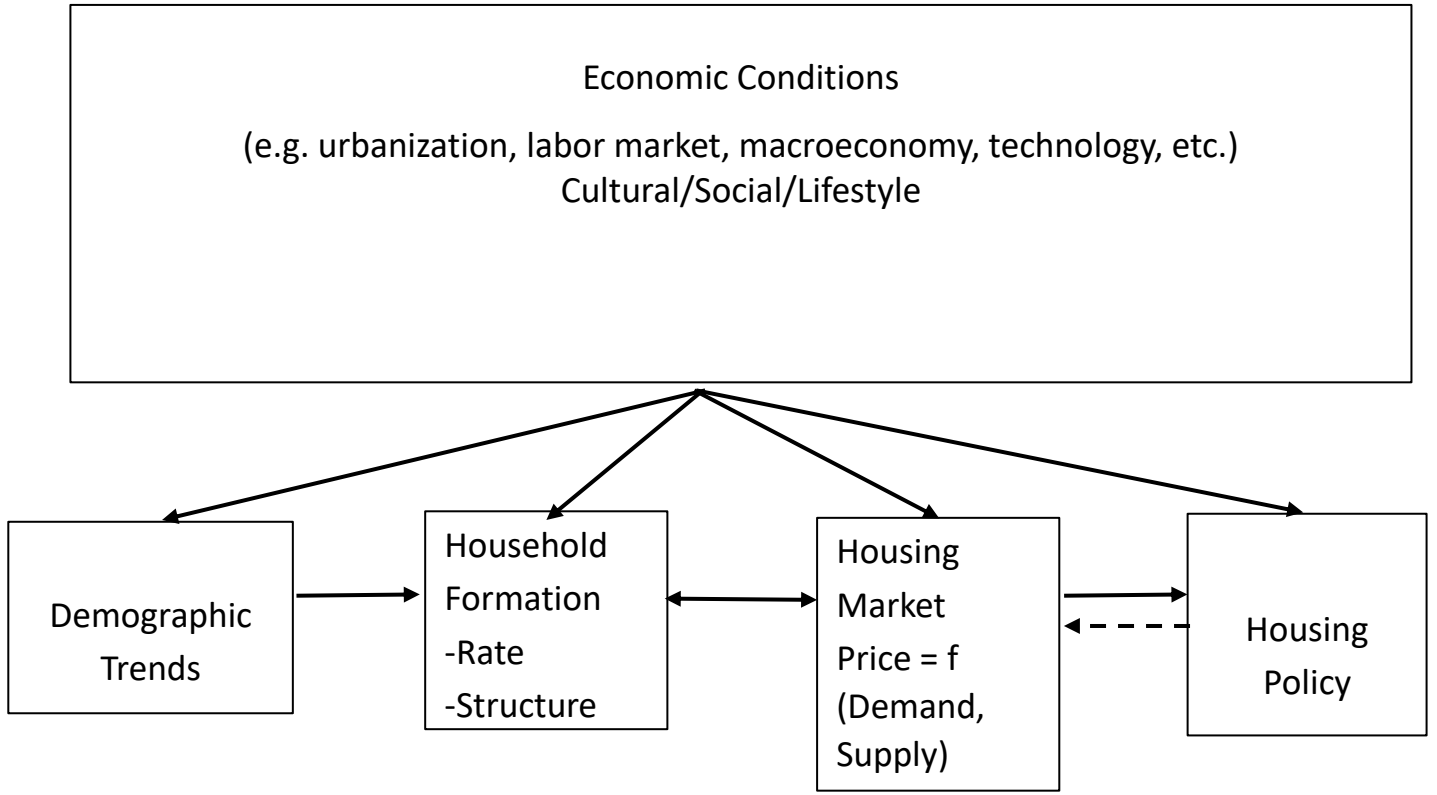
Background

- Ageing and declining fertility has become a major global issue even in developing countries
- Demographic shifts, which are indicated by ageing and declining fertility rate, arise from social and economic phenomenon such as reevaluation of marriage among the younger generation; delay or rejection of parenthood; change in the flows of wealth; and advances in science and technology (can contribute to improving mortality or longer life span)
- Demographic shifts affect the housing market in a significant way

Relating demographics and the housing market

Demographic Trends, Housing Formation, and Housing Policy



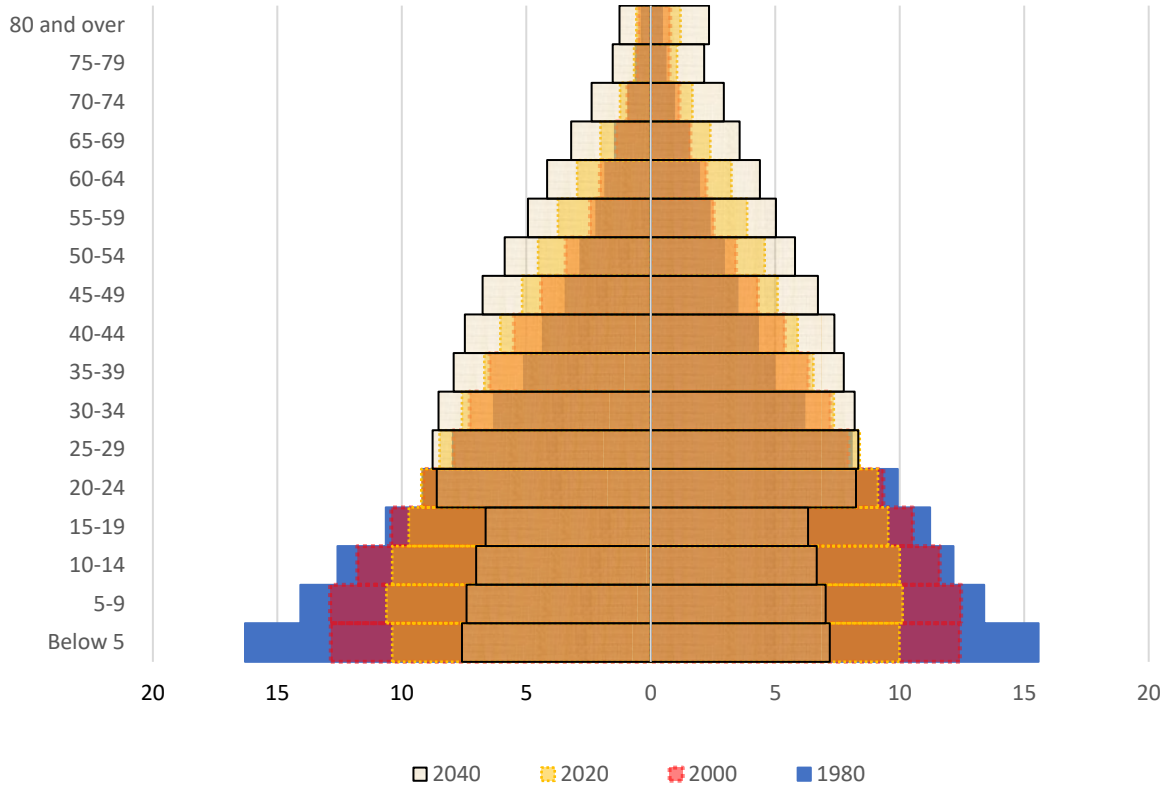
Source: Authors' diagram based on reviewed literature

Objectives of the study

- Examine the changes in the Philippines' population, age, and household structure
- Determine how Philippine demographics relates to housing choices and the demand for homeownership

The age structure of population shows discernible changes

Population Pyramid, Philippines CY 1980–2020 and 2040 (projected)

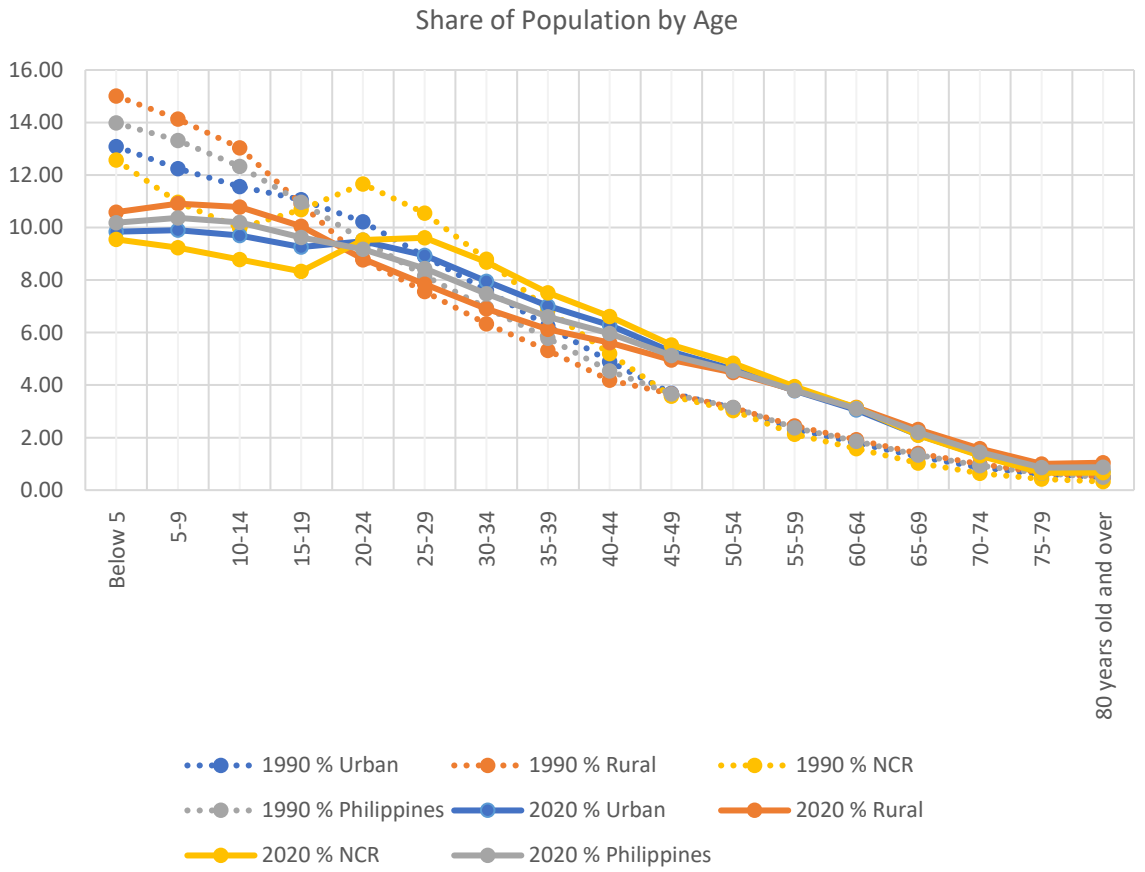


Source: Authors' estimates using basic data from PSA (CPH, various years)

The pattern of rural to urban migration remains the same

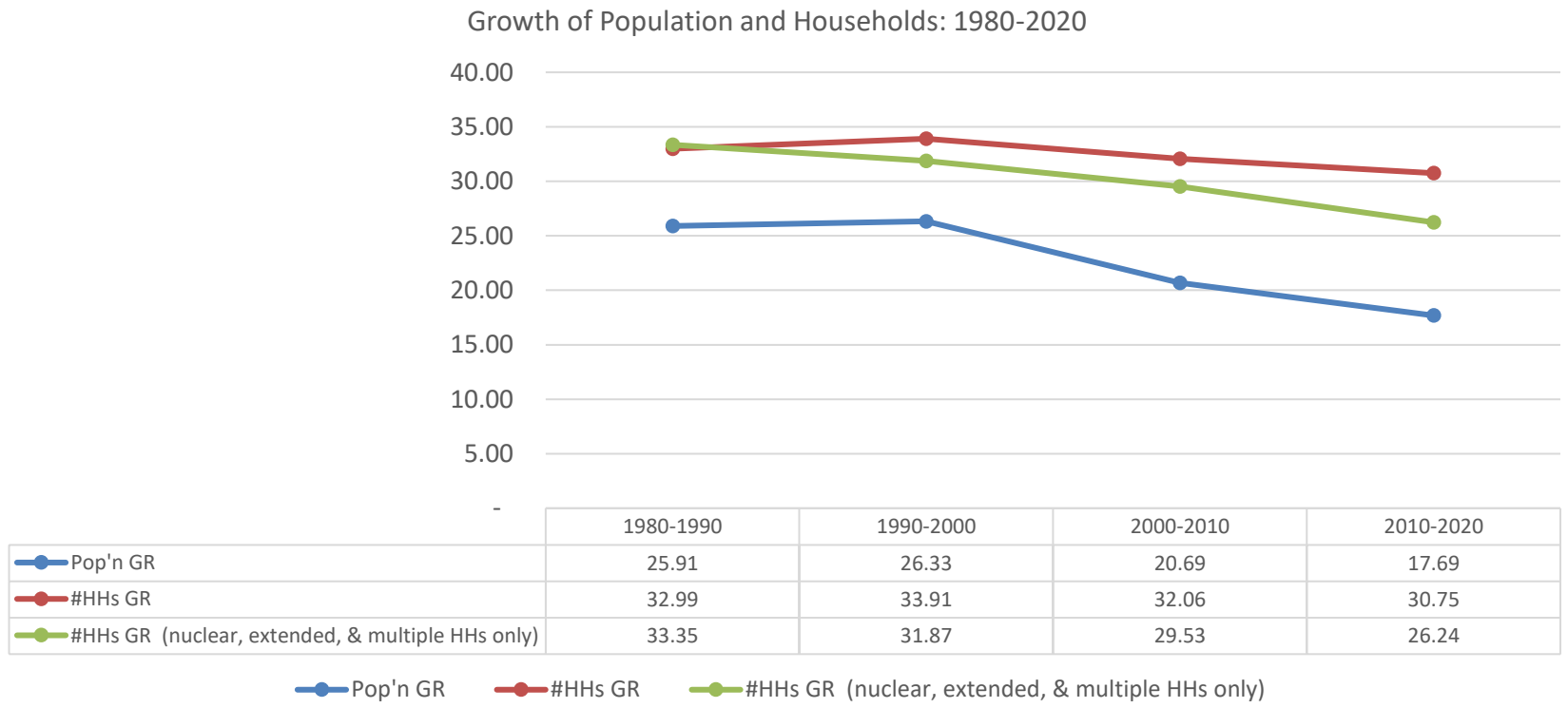
Working age population moving to urban areas implying a surge in the demand for housing in urban areas

Distribution of Population by Age Groups in Philippines, Urban, Rural, and NCR (1990 & 2020)



Source: Authors' estimates using basic data from PSA (CPH, various years)

Growth Rate of Population and Households

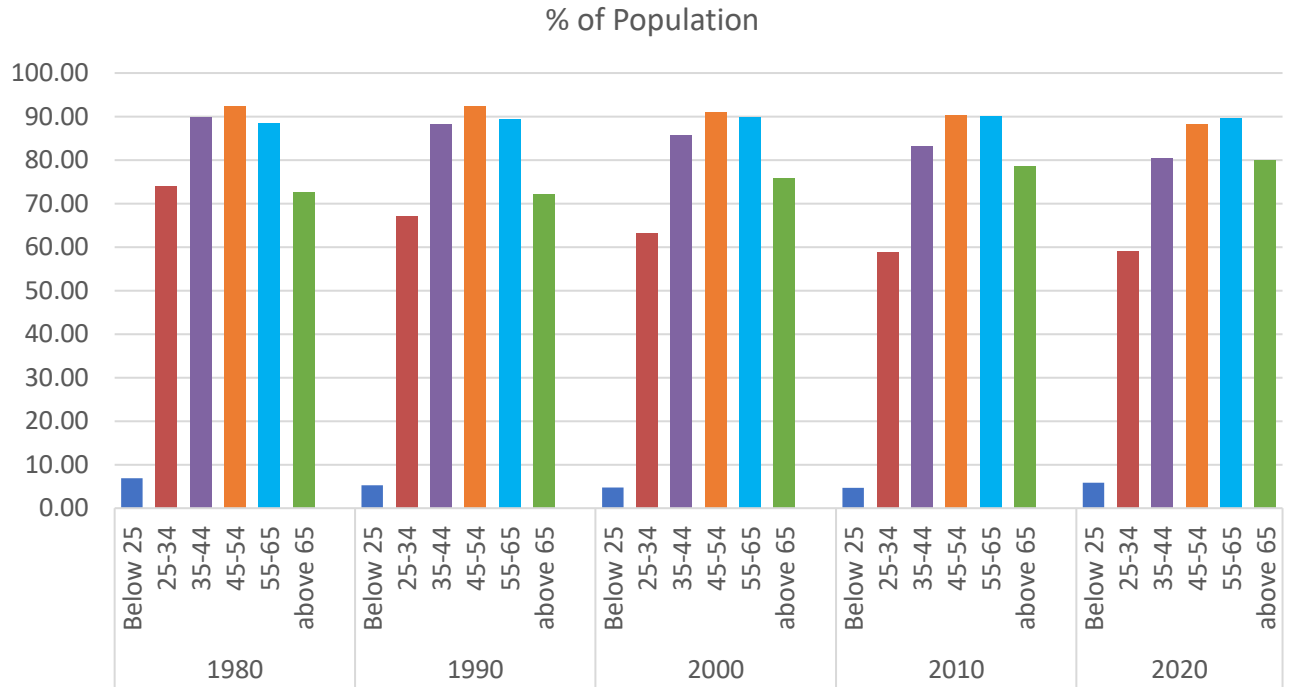


	1980-1990	1990-2000	2000-2010	2010-2020
Pop'n GR	25.91	26.33	20.69	17.69
#HHs GR	32.99	33.91	32.06	30.75
#HHs GR (nuclear, extended, & multiple HHs only)	33.35	31.87	29.53	26.24

Source: Authors' estimates using basic data from PSA (CPH, various years)

Household formation among young adults (ages 25-34) on a decline

Private Households, Philippines



Source: Authors' estimates using basic data from PSA (CPH, various years)
Note: Based on distribution of householders or spouses by age

A third of population still live in households of size 6 and above despite significant declines in TFR

Percentage of population residing in private households by household size: 1990 and 2020

1990				
	Philippines	Urban	Rural	NCR
Percent of Population by Household Size				
1-2	3.69	3.61	3.76	3.99
3-5	37.38	38.96	35.89	43.63
6-8	45.10	44.58	45.59	43.51
over 8	13.84	12.85	14.76	8.88
2020				
	Philippines	Urban	Rural	NCR
Percent of Population by Household Size				
1-2	9.08	9.58	8.23	11.50
3-5	52.89	53.63	50.71	54.22
6-8	30.44	29.62	31.70	28.39
over 8	7.58	7.17	9.36	5.88

NCR = National Capital Region

Source: Authors' estimates using basic data from PSA (CPH, various years)

Preference for small-sized households in rural, urban, NCR reflects a constraint in housing space

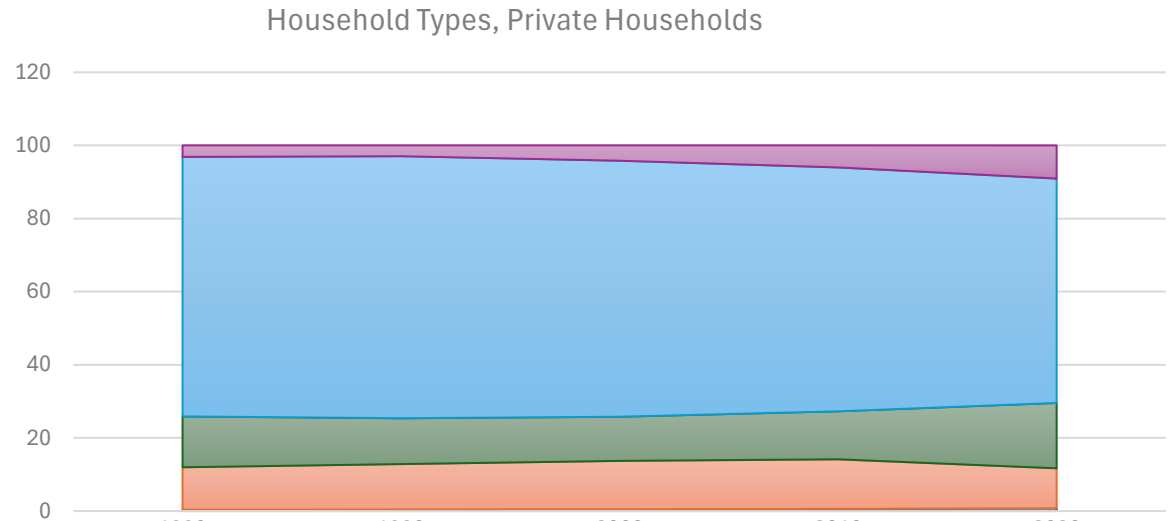
1990				
	Philippines	Urban	Rural	NCR
Percent of Population by Household Size				
1-2	3.69	3.61	3.76	3.99
3-5	37.38	38.96	35.89	43.63
6-8	45.10	44.58	45.59	43.51
over 8	13.84	12.85	14.76	8.88
Percent of Households by Household Size				
1-2	11.12	10.82	11.41	11.26
3-5	47.45	48.98	45.99	52.75
6-8	34.39	33.82	34.93	31.80
over 8	7.04	6.39	7.67	4.19

2020				
	Philippines	Urban	Rural	NCR
Percent of Population by Household Size				
1-2	9.08	9.58	8.23	11.50
3-5	52.89	53.63	50.71	54.22
6-8	30.44	29.62	31.70	28.39
over 8	7.58	7.17	9.36	5.88
Percent of Households by Household Size				
1-2	23.10	24.13	21.53	28.06
3-5	54.84	54.79	54.20	53.06
6-8	19.01	18.25	20.40	16.68
over 8	3.04	2.83	3.88	2.20

Source: Authors' estimates using basic data from PSA (CPH, various years)

Rising extended/multifamily households as another response to housing constraints

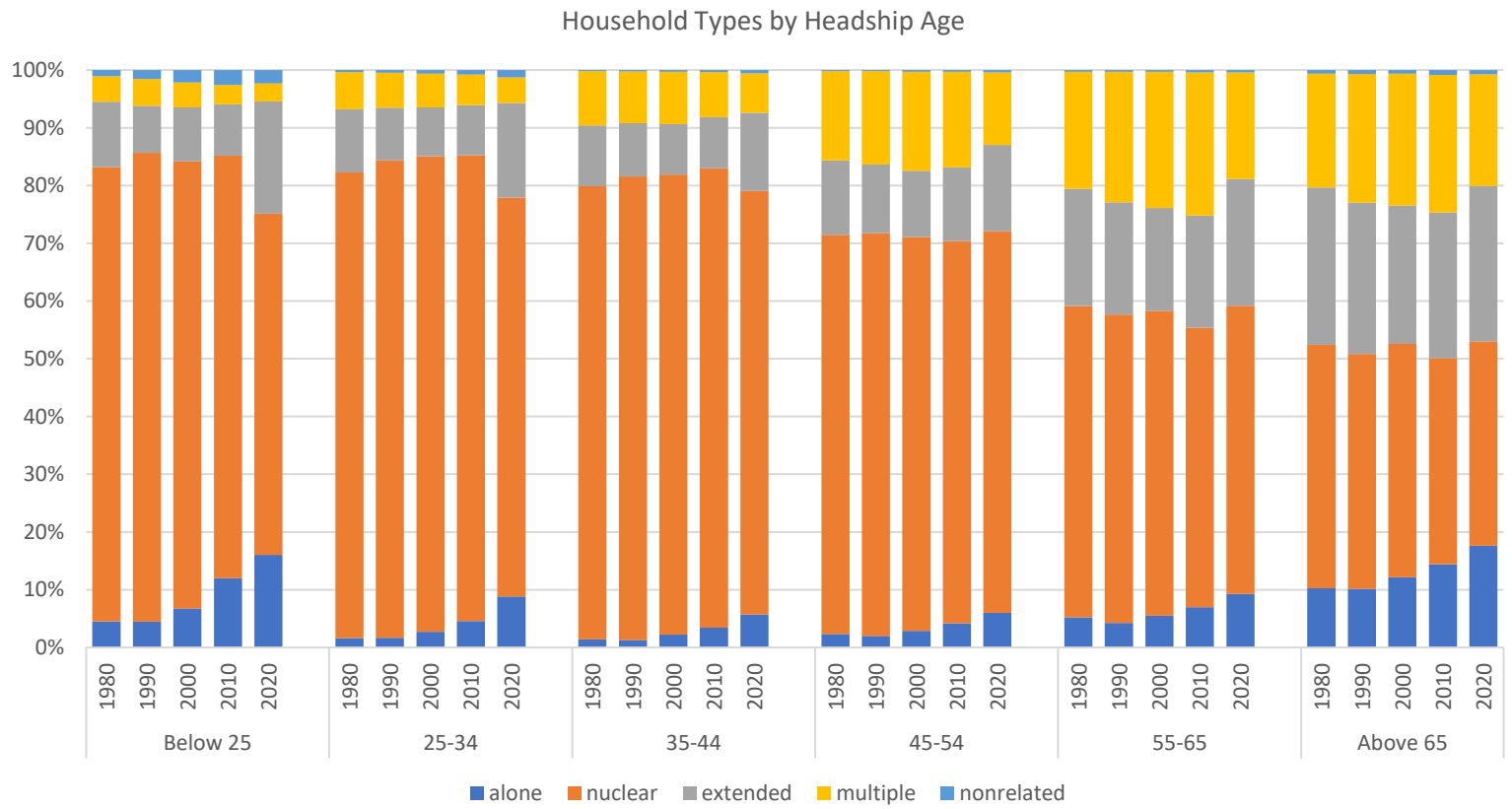
Distribution by Household Types, Private Households (in percent)



	1980	1990	2000	2010	2020
Alone	3.16	2.91	4.15	5.99	9.06
Nuclear	70.96	71.69	70.07	66.7	61.38
Extended	13.88	12.57	12.08	13.19	17.88
Multiple families	11.63	12.41	13.21	13.52	10.92
Nonrelated	0.37	0.42	0.49	0.6	0.77

Notes: * 1980: Weights only inflate sample households to around 25% of the total households in the Philippines; Observations with non-unique household IDs had to be dropped in the household dataset to enable merging with population dataset
* 2000: Households with 2 household heads were categorized under multiple families
Source: Authors' estimates using basic data from PSA (CPH, various years)

Increase in living alone and non-family household arrangements reflect both demographic shifts and housing constraints

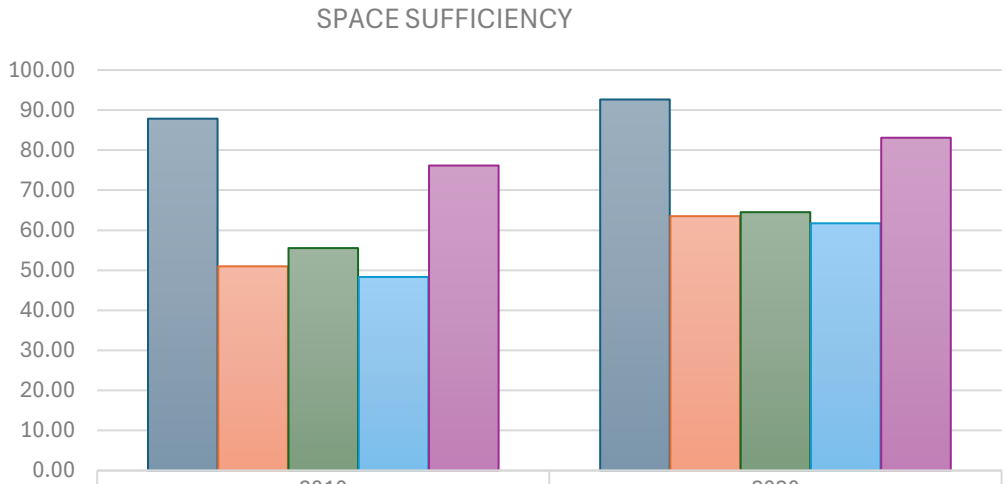


Note: * 1980: Weights only inflate sample households to around 25% of the total households in the Philippines; Observations with non-unique household IDs had to be dropped in the household dataset to enable merging with population dataset

Source: Authors' estimates using basic data from PSA (CPH, various years)

Space sufficiency is a constraint for big-sized family households

Sufficiency of Space by Household type (%), Private Households

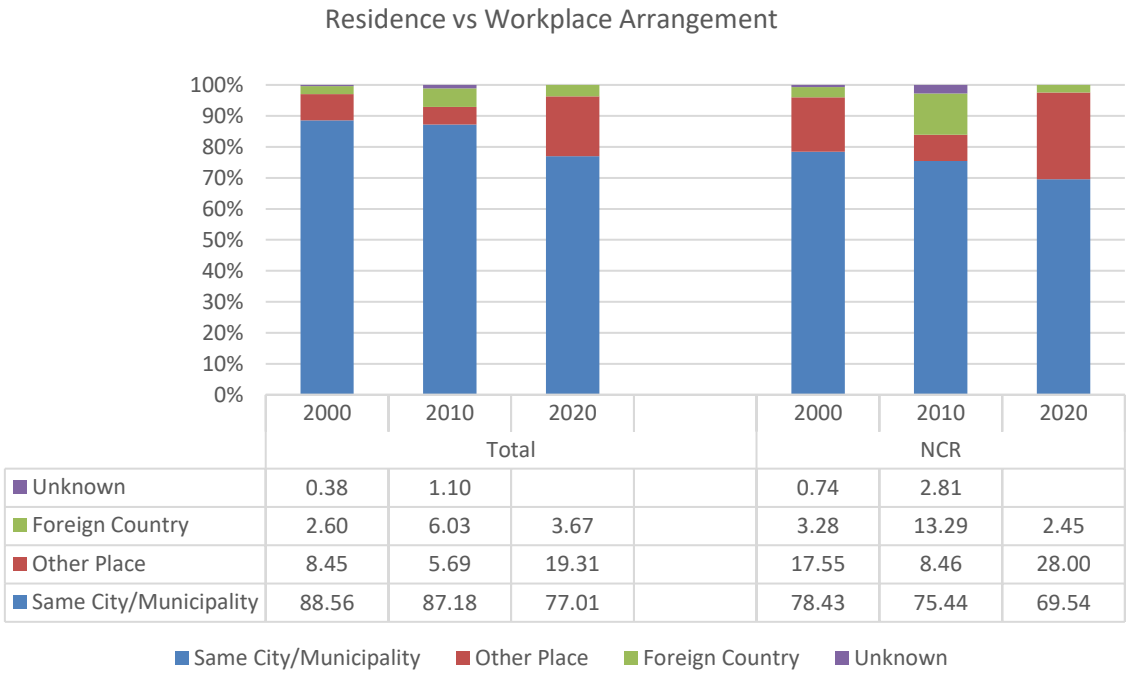


	2010	2020
Alone	87.85	92.64
Nuclear	50.99	63.51
Extended	55.54	64.51
Multiple families	48.33	61.73
Nonrelated	76.15	83.09

Source: Authors' estimates using basic data from PSA (CPH, various years)

Increase in the percentage of workers with place of work different from place of residence

Residence vs. Workplace Arrangement, Private Households



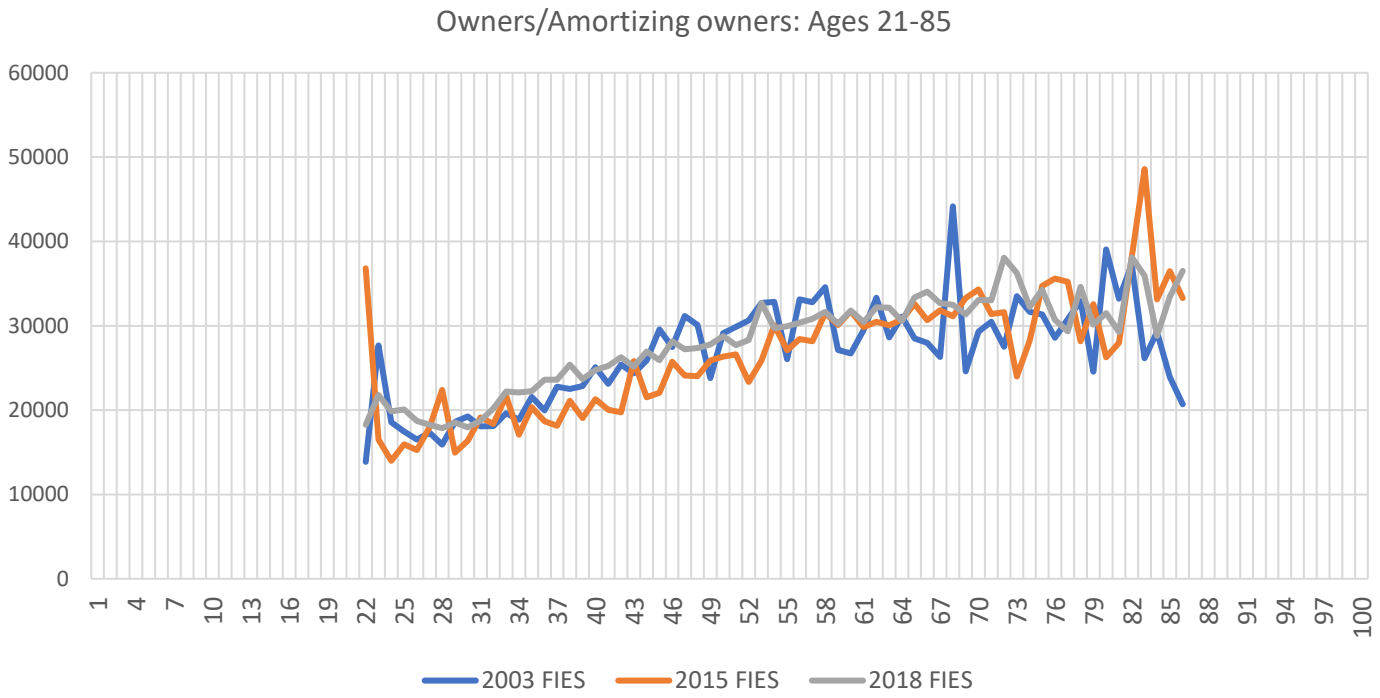
	Total				NCR		
	2000	2010	2020		2000	2010	2020
Unknown	0.38	1.10			0.74	2.81	
Foreign Country	2.60	6.03	3.67		3.28	13.29	2.45
Other Place	8.45	5.69	19.31		17.55	8.46	28.00
Same City/Municipality	88.56	87.18	77.01		78.43	75.44	69.54

Note: Other places can include different city/municipality or different province

Source: Authors' estimates using basic data from PSA (CPH, various years)

Demand for homeownership increases with age

Estimated Demand for Homeownership by Age, 2003, 2015, 2018

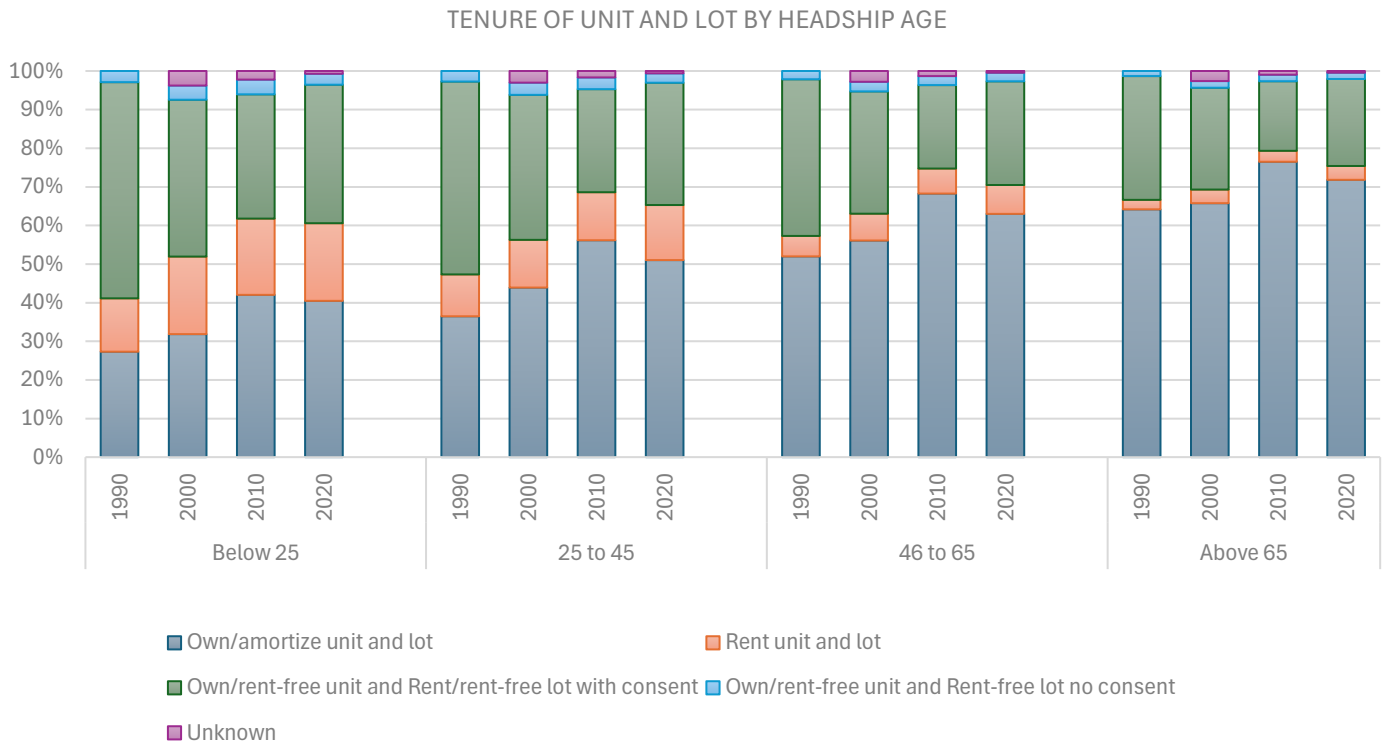


Notes: Imputed rental values of owners; values deflated base year = 2018; Ages below 21 and above 85 were not included in the figure since some years have missing values and observations in some years were too few, which led to outliers distorting the graph

Source: Authors' estimates using basic data from PSA (FIES, various years)

Households of headship above 65 are likely to have their own homes

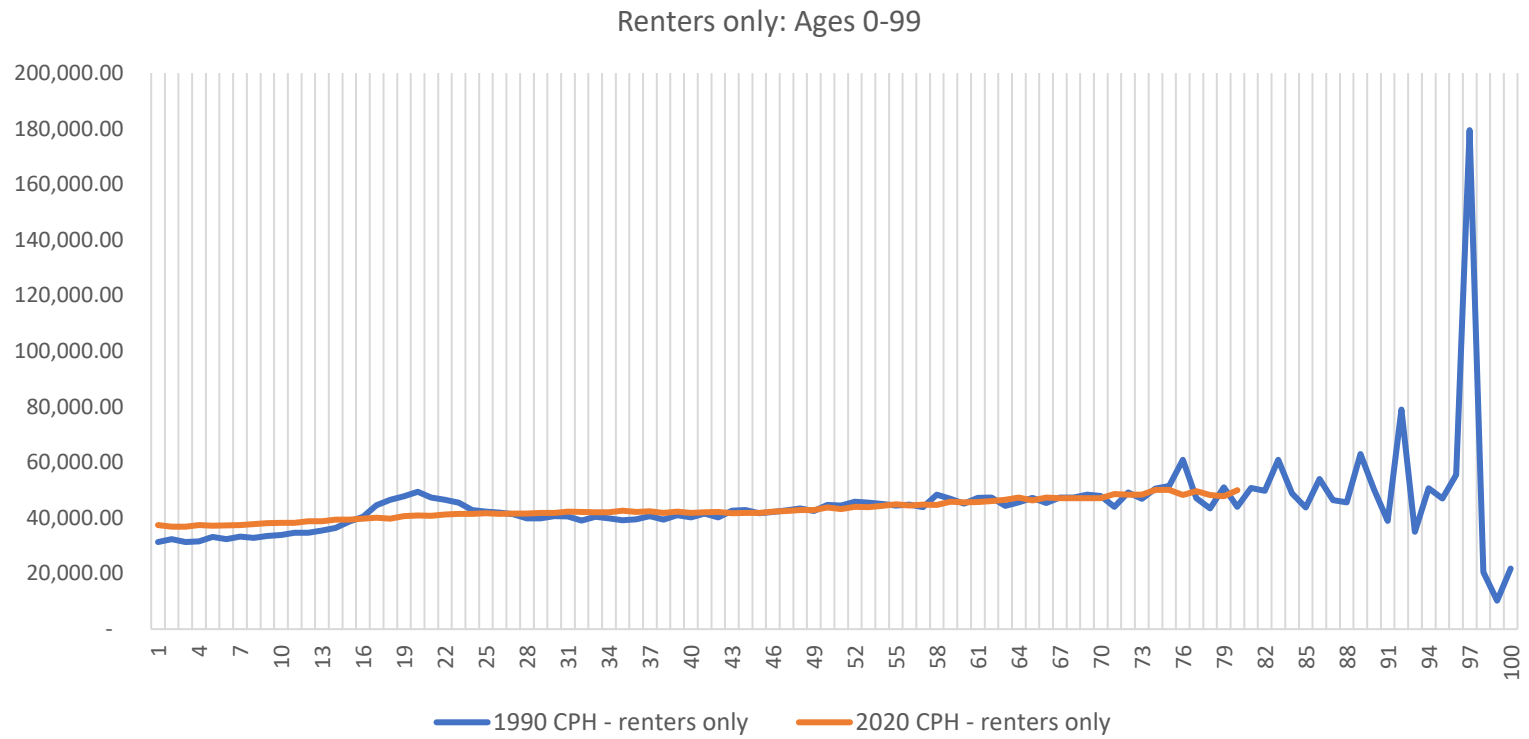
Housing Tenure by Headship Age (%), Private Households



Notes: * 2000: There are households with more than 1 household head
Source: Authors' estimates using basic data from PSA (CPH, various years)

Demand for rental housing is constant for all ages

Estimated Demand by Age for Rental Housing, 1990 & 2020



Notes: Actual rental values were used; deflated base year = 2018
Source: Authors' estimates using basic data from PSA (CPH, various years)

Conclusion

- The Philippines is in a demographic “sweet” spot. More working adults is good for economic development.
- Shelter inadequacies can hasten the Philippines transition to aging economy as limited access to decent housing affects household formation and decisions of having children.
- Housing problem, poor housing environment affects the working population endangers family institutions and children psychosocial development, which are major causes of rising health and social problems in society.
- A call for government to act on housing problem. Rising housing backlog in the midst of oversupply of condominiums and problem of vacancy rates in public socialized housing.

Determinants in the Formation of Extended and Multifamily Households in the Philippines

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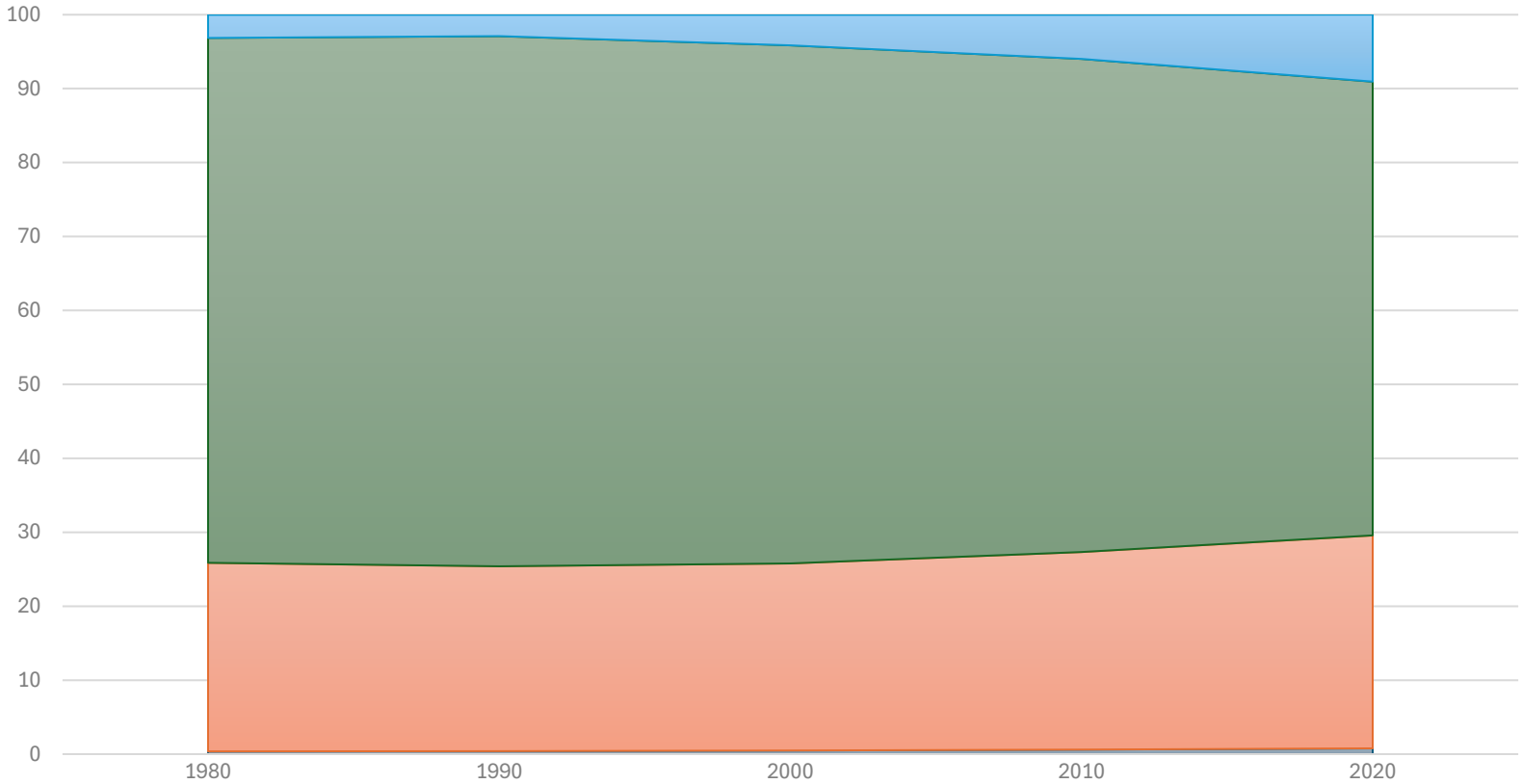
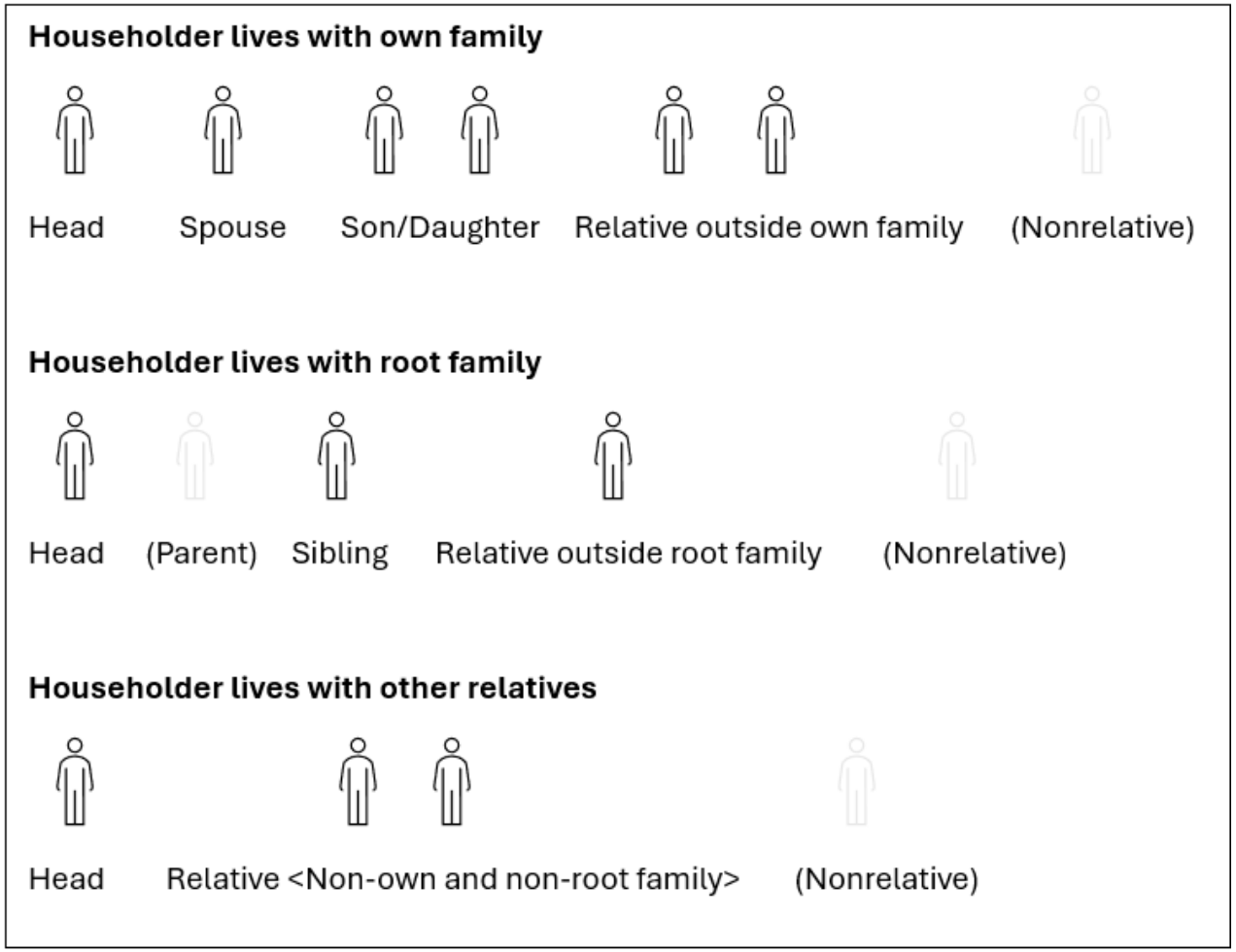
Recap: Distribution of Households by Household Type in the Philippines (%), 1980 to 2020



	1980	1990	2000	2010	2020
Alone	3.16	2.91	4.15	5.99	9.06
Nuclear	70.96	71.69	70.07	66.7	61.38
Extended and Multifamily	25.51	24.98	25.29	26.71	28.8
Nonrelated	0.37	0.42	0.49	0.6	0.77

Notes: * 1980: Weights only inflate sample households to around 25% of the total households in the Philippines; Observations with non-unique household IDs had to be dropped in the household dataset to enable merging with population dataset
* 2000: Households with 2 householders were categorized under multiple families
Source: Adapted from Ballesteros et al.'s (2024) estimates whose basic data are from PSA (n.d.-a-e)

Components of Extended and Multifamily Households, 2020



Source of basic data: PSA (n.d.-a)
Notes: * Not including the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM)
* Members outlined in gray may be present in the corresponding classification, but this is uncommon

Methodology

- Focus on young adults
- Regression model with an outcome of being in an extended and multifamily household run for 25 to 34-year old individuals in year 2020, which was around 15.1 million persons
- Regression model using manually constructed panel dataset involving around 10.7 million individuals (25 to 34-year-olds in 2000, 35 to 44-year-olds in 2010, and 45 to 54-year-olds in 2020) with the proportion of those in extended and multifamily households being the outcome variable

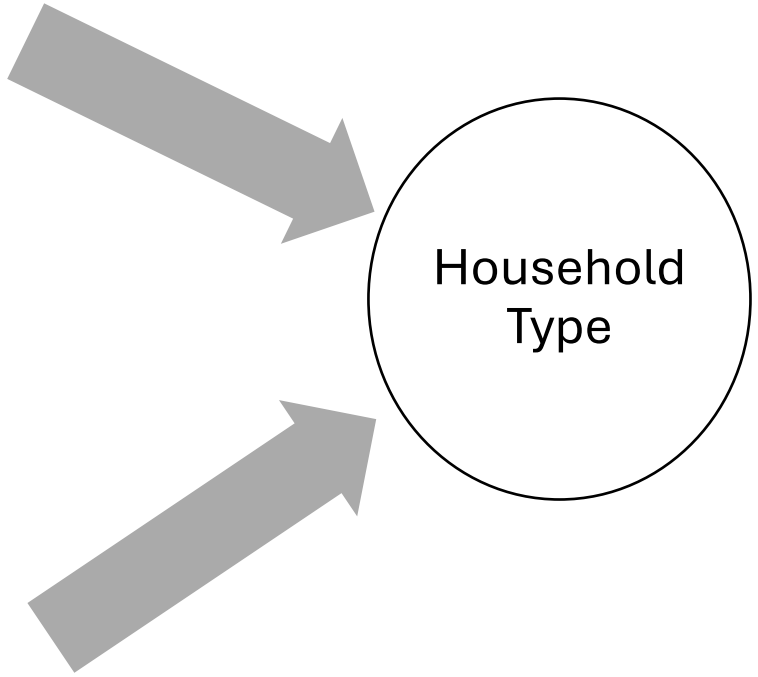
Methodology

Socioeconomic Factors

- Sex
- Marital status
- Household with child
- Household with elderly
- Wealth
- Working
- Class of worker
- Place of work
- Education
- Religion
- Ethnicity
- Housing tenure
- Financing of housing unit

Environmental Factors

- Residential construction price
- Urbanization
- Local government unit quadrant



2020 Model

$$\frac{P(Y_i = j|x_1, x_{2,} \dots, x_k)}{P(Y_i = J|x_1, x_{2,} \dots, x_k)} = e^{\propto_j + \beta_{j1}x_1 + \beta_{j2}x_2 + \cdots + \beta_{jk}x_k}$$

where $P(Y_i = j|x_1, x_{2,} \dots, x_k)$ is the probability of being in an outcome category j given the independent variables $x_1, x_{2,} \dots, x_k$; $P(Y_i = J|x_1, x_{2,} \dots, x_k)$ is the probability of being in the baseline category J; $\propto_j$ is the intercept; and β_j is the regression coefficient for the corresponding independent variable (see Anderson & Rutkowski 2007)

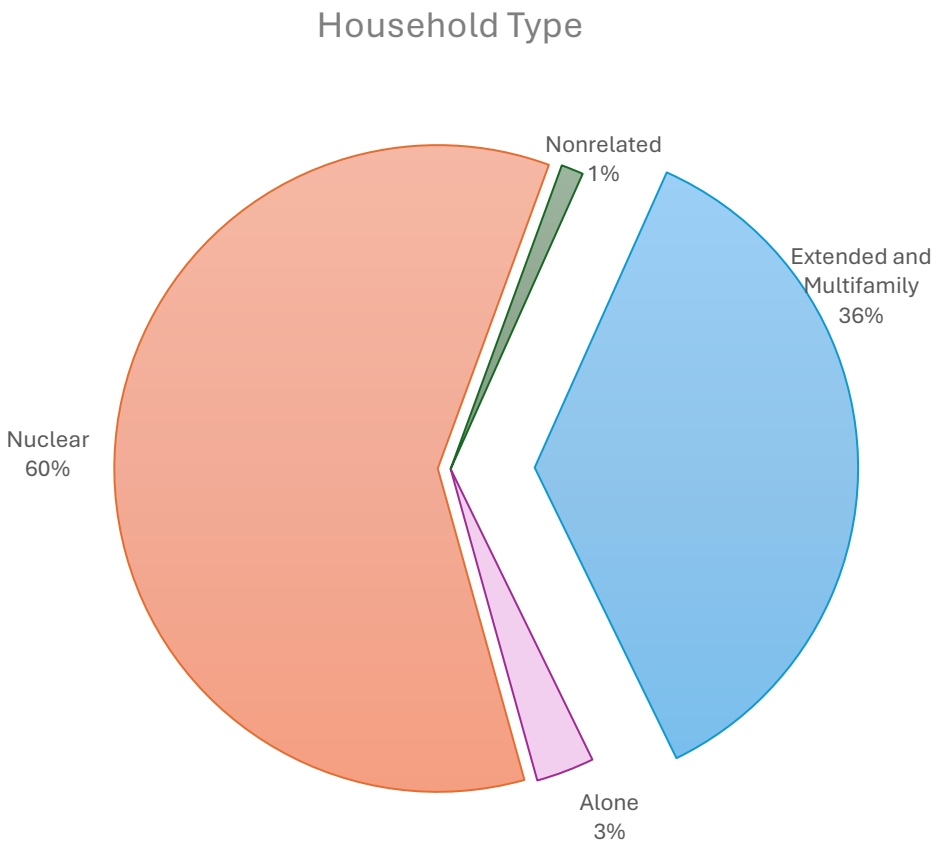
2000 to 2020 Model*

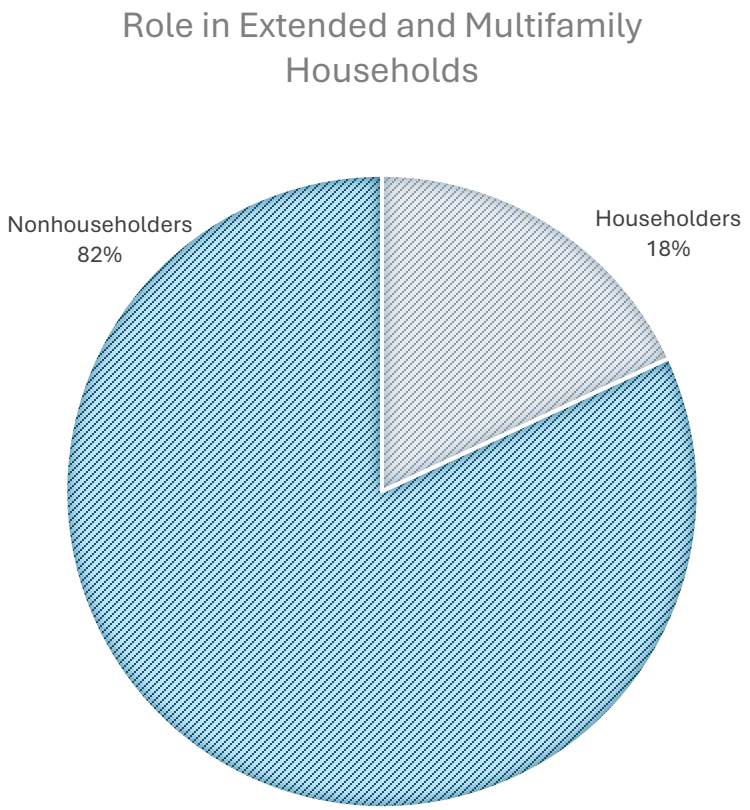
$$Y_{it} = \propto_i + \beta X_{it} + \delta_t + \mu_i + e_{it}$$

where entity i = 1 … n and time t = 1…T; Y_{it} is the dependent variable; $\propto_i$ is the unknown intercept; X_{it} is the vector of independent variables; δ_t is the unknown coefficient for time regressors; μ_i is the within-entity error term; and e_{it} is the overall error term (see Torres-Reyna 2007 and Bartels 2015)

Note: * 2000 to 2020 model excludes sex as an independent variable; it was used instead as one of the characteristics differentiating observations in the panel dataset

Distribution of 25 to 34-year olds by Household Type and their Role in Extended and Multifamily Households, 2020





Source of basic data: PSA (n.d.-a)
Note: Not including BARMM

Resource-sharing Opportunity

Marginal Effects using 2020 Model

Wealth		
Alone	-0.011	***
	(0.000)	
Nuclear	-0.055	***
	(0.000)	
Extended and multifamily	0.065	***
	(0.000)	
Nonrelated	0.001	***
	(0.000)	
Marital status: single <base = not single>		
Alone	-0.048	***
	(0.000)	
Nuclear	0.013	***
	(0.000)	
Extended and multifamily	0.042	***
	(0.000)	
Nonrelated	-0.007	***
	(0.000)	

*** p<.01, ** p<.05, * p<.1
Source of basic data: PSA (n.d.-a); PSA (2024c); LGA (2022)
Notes: Models were run on the population of 25- to 34-year-olds; Not including BARMM; Some estimates including those in relation to unspecified category are not shown in the table

Ensuring Security at Home while at Work

Marginal Effects using 2020 Model

Place of work: same province, different city/municipality <base = same province, same city/municipality>

Alone	-0.006	***
	(0.000)	
Nuclear	-0.036	***
	(0.000)	
Extended and multifamily	0.047	***
	(0.000)	
Nonrelated	-0.005	***
	(0.000)	

*** p<.01, ** p<.05, * p<.1
Source of basic data: PSA (n.d.-a); PSA (2024c); LGA (2022)
Notes: Models were run on the population of 25- to 34-year-olds; Not including BARMM; Some estimates including those in relation to unspecified category are not shown in the table

Support for Working Young Female Adults

Marginal Effects using 2020 Model

Working female <base = non-working female>		
Alone	0.012	***
	(0.000)	
Nuclear	-0.213	***
	(0.001)	
Extended and multifamily	0.192	***
	(0.001)	
Nonrelated	0.009	***
	(0.000)	

*** p<.01, ** p<.05, * p<.1
Source of basic data: PSA (n.d.-a); PSA (2024c); LGA (2022)
Notes: Models were run on the population of 25- to 34-year-olds; Not including BARMM; Some estimates including those in relation to unspecified category are not shown in the table

An Unlikely Setup for the Less Educated

When the Elderly Need Care and the Young Need Shelter

Regression Coefficients using 2000 to 2020 Model

Preschool/kinder/no grade completed	-1.964	**
	(0.930)	
Household with elderly	0.684	***
	(0.235)	
Household with child	-1.150	***
	(0.164)	
Household with child and residential construction price per square meter	0.000	**
	(0.000)	

*** p<.01, ** p<.05, * p<.1
Source of basic data: PSA (n.d.-a-c); PSA (2024a-c); LGA (2022)
Notes: Models were run on the population of 25 to 34-year-olds in 2000, 35 to 44-year-olds in 2010, and 45 to 54-year-olds in 2020; Not including BARMM

Conclusion

> Formation of extended and multifamily households not necessarily detrimental to society

- Resource-sharing opportunity
- Support for working young female adults, young adults working far from their residence, elderly, and young families with children

> However, the addition of relatives in the household appears to be rooted in constrained decision-making

- Insufficient capacity to become householders and afford own housing

POLICY RECOMMENDATIONS BASED ON STUDY 1 AND 2

Policy Recommendations

Understand whether the housing need is quantitative or qualitative. Qualitative deficit requires a different intervention from that of adding new housing stock

Government must act on the low attainability of housing in the country. The surge in housing prices in the formal market is mainly driven by the purchasing power of investors and high-income end users, resulting in inflationary effects. The traditional approach to homeownership may not work. Government action to bring down housing prices by lowering the cost of mortgages would be insufficient, especially under conditions of high property prices and strong price growth

Differences in the age structure of population imply wide variation in housing needs across cities and localities. It would be prudent for government to focus on multiple paths to housing and to not apply same interventions for all areas

Provide a policy framework that will balance productive environment, housing consumption and supply. For instance, giving incentives to SME employers for workers housing support

Policy recommendations

Devise housing program for the elderly

- The advantage of home care for the elderly and children may dissipate in the future. Increasing disability among the elderly.
- Institutional housing for the elderly will become important in the future.
- Reverse mortgage program is relevant as elderly tend to hold on to their homeownership
- Provide alternative affordable housing arrangement for the elderly who are alone or have no permanent homes.

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