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Determinants in the formation of extended and multifamily households in the Philippines

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DISCUSSION PAPER SERIES NO. 2024-32

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

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Abstract

Nuclear households remain the dominant form of household type in the Philippines, but we note a rising number of extended and multi-family households, which have important implications on housing policy and demographic trends in the country. This study examines the factors influencing the decision to live in such household types. Multinomial logistic regressions are used to determine the association of potential factors with the formation of the extended and multi-family households. The results show that this formation is not necessarily a negative development as there are cultural factors that influence this arrangement but there is reason to believe that limited housing options in the market and the low attainability of homeownership for most individuals are driving the rise in extended and multi-family arrangements. There is a need for government to rethink its supply-driven housing policy in order to effectively respond to the housing need and the demographic changes that drives such need.

Keywords: housing choice, extended households, demography, Philippines

Table of Contents

1. Introduction	1
2. Review of Related Literature: Potential Factors of Household Formation	2
3. Methodology	5
4. Composition of Households	9
5. Characteristics of 25 to 34-Year Old Young Adults in 2020	10
6. Factors Influencing Formation of Extended and Multi-Family Households in 2020	13
7. Consistency of Factors Influencing Formation of Extended and Multi-family Households from 2000 to 2020	27
8. Conclusion	31
9. Annex	32
10. References	41

List of Figure

Figure 1. Dependent and independent variables in multinomial logistic regression models	6
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List of Tables

Table 1. Mean household size, 2020	9
Table 2. Components of extended and multi-family households, 2020	9
Table 3. Characteristics of 25 to 34-year old young adults in 2020 (%)	11
Table 4. Marginal effects of selected variables on being in extended and multi-family households, 2020	14
Table 5. Characteristics of 25 to 34-year old young adults of year 2000 as they age (%), 2000 to 2020	28
Table 6. Regression coefficients of fixed effects models, 2000 to 2020	30

List of Annex

Annex 1. Relative risk ratios for selected variables with base outcome of being in extended and multi-family households, 2020	32
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Determinants in the Formation of Extended and Multifamily Households in the Philippines

Tatum P. Ramos, Marife M. Ballesteros, and Jenica A. Ancheta¹

1. Introduction

The structure of households in the Philippines remains predominantly nuclear but there is a stronger presence of extended and multifamily households. The prominence of extended and multifamily households has led to bigger household sizes despite the substantial decline in fertility rates (Ballesteros et al. 2024a).

Extended and multi-family households can be classified into three groups: (1) householder lives with own family, (2) householder lives with root family, and (3) householder lives with other relatives. Membership varies across these three groups. The first classification can be further broken down into the head's own family (head, spouse, and child), relatives outside of that family, and possibly nonrelatives. Meanwhile, the components of the second classification are as follows: root family (head, parent, sibling), relatives outside of the root family, and possibly nonrelatives. The third and final classification is made up of a family (head, and non-own and nonroot relatives) and possibly nonrelatives. The presence of relatives outside of own and root families for each of the classifications make these households distinct from a nuclear household type.

There is a lack of studies that describe the composition of the three classifications of extended and multi-family households in the Philippines. The average number of specific members (eg. children, other relatives, etc.) has been unknown, preventing further understanding and analysis on the formation of such households. Additionally, the total average size of these households is insufficiently discussed such that a comparison with that of a typical Philippine household has not been made to determine potential differences in dynamics. The rationale behind the grouping together and extending of families is also not known. While families, in general, have preference to secure housing for their own, the choice of forming extended and multi-family households may provide information on the appropriate public housing policy.

Given the gap in the literature on extended and multi-family households in the Philippines, the authors aim to achieve the following objectives through the conduct this study: (1) examine and dissect the composition of the households, (2) analyze factors influencing their formation, and (3) provide policy recommendations based on those factors. Through the achievement of the first and second objectives, the authors would be able to assess whether the formation of extended and multi-family households is a cause of concern and whether these households would need any kind of support from the government.

¹ The authors are grateful for the assistance provided by Ms. Kris Ann M. Melad and Mr. Jake D. Calubayan.

2. Review of Related Literature: Potential Factors of Household Formation

There have been studies that already investigated the potential factors of household formation. These potential factors include income; work; education; sociocultural values related to family, marriage, dependents, and age; housing costs; and other factors. Results have varied, nevertheless, across these studies, and it is unclear which findings are applicable to the context of the Philippines.

Reviewing related literature reveals how income has had different influences and significance on the formation of households. Numerous studies have shown a positive relationship between the two. Such a link is discussed in studies like that of Esteve et al. (2024) who emphasized that factors influencing household formation include resource constraints and economic situations. Some young generations who have gone through economic downturns experienced a decline in householder rates given the relative ease in delaying separation from the root family compared to reverting this branching out (Ozimek 2016). The youth can be considered risk averse in the sense that they choose to remain with their parents when there are negative external events beyond their control. But this risk aversion does taper off as the economy improves. Ozimek (2016) mentioned that in the recovery phase and within their prime household formation years, the young adults are expected to separate from their root family or household of nonrelated members.

A better economic situation influences young adults' decision through both the impact on his income and that on his/her parents. Higher earnings capacity comes with a small positive influence on separating from parents (Haurin et al. 1993). Similarly, young adults, whose parents have higher income than others, are more likely to vacate their parental house while those with poor parents are less likely to do so probably because of generational poverty (Di and Liu 2006).

The relationship between income and household formation, nevertheless, does not appear to be the same for men and women. Income affects men and women differently as men who have higher income are more probably vacating their parents' house while females are seen to have higher income if they are staying in their parents' house (Di and Liu 2006). This difference probably comes from the various roles that women are expected to take on. Di and Liu (2006) discussed that those females who leave their parental house are likely to have lower income because they may be married or building their own family and thus could only work partially or not at all.

As though the observed influences of income are not conflicting enough, some studies have also found insignificance of the variable in household formation. In a study on the factors of household formation in Karachi, Pakistan, authors Pasha and Lodhi (1994) mentioned the lack of influence of income and its general insignificance in the choice of branching out to another nuclear household. The study of Reyes (2018) provides a potential explanation for this phenomenon. She mentioned that the nuclei of extended family households often supports the rest of the household members, but many of those members have enough income to live independently. The author added that the unnecessary dependence implies an unpure economic motivation behind extended households. Within Asian extended family households, increases in family income decreases the inequality in financial contributions which are based on what each member can afford (Reyes 2018). Overall, the conflicting findings on income imply that there are probably other factors with larger influence on household formation.

The relationship between the presence of work and household formation is expected to mimic aspects of what has been discussed in relation to income. There are conflicting ideas, nevertheless, with what has been found in income's influence on household formation. Women are seen to have higher preference to branch out to a new nuclear household if they are employed and the head is aged 30 years old and above (Pasha and Lodhi 1994). Additionally, members whose fathers' nature of work is in production, agricultural, and clerical are more likely to form their own nuclear households given that low-income and working-class families lack the capacity to support a huge joint household (Pasha and Lodhi 1994).

Pieces of evidence on the relationship between educational attainment and household formation are split. In 1994, Pasha and Lodhi noted that there is a lack of evidence linking educational attainment with household formation, indicating that privacy does not necessarily become a higher priority for householders and spouses with higher educational attainment. Some of the more recent studies, nevertheless, have revealed a link between the two. Di and Liu (2006) found that individuals who received some college education have higher odds of separating from the parental house than those who did not graduate from high school.

Sociocultural values may have greater weight on household formation than economic factors. Individuals may have tightknit relationships with relatives, increasing the potential to form extended and multi-family households. As pointed out by Pasha and Lodhi (1994), household members who refuse to branch out to form new nuclear households despite income increases have sociocultural values bounded on strong family ties. Such ties are apparent in Asian nations. Esteve et al. (2024) even noted that Asian countries have large numbers of non-own family relatives living in the household. The authors also mentioned that other than family and kinship, household composition and size are influenced by sociocultural values and norms related to marriage.

Marriage has shown a positive relationship with household formation in some studies. Haurin et al. (1993) mentioned that married people are more likely to vacate their parental house. Marriage, at least for individuals in their 20s, has been associated with higher householder rates (Ozimek 2016). The weight of the influence of marriage, nevertheless, has not been consistent. Di and Liu (2006) noted that there has been a reduction in the effect of marital status on the choice of young adults to leave their parents' house, a sign that there is greater acceptance for married children to stay with their parents. On an extreme end, people have been delaying marriage in their lifetime increasing the number of persons living alone (Esteve et al. 2024).

Similar with marriage, an increase in persons living alone has been found as more people delay parenthood in their lifetime (Esteve et al. 2024). For those who do have children, the influence on household formation appears to be inconsistent. Pasha and Lodhi (1994) noted that members of households with larger number of dependents or higher habitation densities are seen to form nuclear households due to higher demand for living space. Haurin et al. (1993) saw that having children has a small positive influence on the tendency to stay in another house away from parents. Flynn (2013), nevertheless, pointed out that although purchasing own housing is associated with parenthood, this may differ depending on the country. The author found that in Luxembourg, those living with parents are more likely to have children of their own. Staying with parents while with children can be tied to gaining support for household management. Some individuals may also be considering limiting the number of dependents to better manage the household. Esteve et al. (2024) mentioned that there is a reduction of care work in the household with fewer number of children, which in turn, could increase work opportunities outside the household.

Household formation is found to be influenced by age. Prior research has had particular age groups to focus on given this expectation. Pasha and Lodhi (1994) only looked at households headed by individuals 39 years old and below as older householders might form joint households with their children. The householder age of the authors' observed group of households was found to have a positive correlation with the percentage of nuclear households, but the household headship rate has the tendency to be more constant as household head age goes above 30 years old. Di and Liu (2006) mentioned that as young adults age, they are less probable to vacate their parents' house. In some research, older people have been analyzed more. Esteve et al. (2024) noted that an increase in persons living alone is influenced by having a larger proportion of the population being older, and older people are not contributors to household size increases. The authors added that if the younger generation are unable to take care of older people and if the latter group do live separately, the care work required will tend to be more resource-intensive. The youth then have to consider this in determining whether to live separately with their parents and form an extended/multi-family household or not.

Housing costs have shown some influences on housing formation. Flynn (2013) mentioned that with low housing costs in Italy, Germany, France, and Austria, children who have become adults are less probable to be living in the parental house. On the other hand, there is lower probability to live alone or outside the parental house among individuals in areas with twice the mean housing costs (Haurin et al. 1993). Furthermore, there is a tradeoff found in housing and children (Flynn 2013) such that individuals living in households with a child might prefer being in the extended and multi-family household type if there are high housing costs.

There are also studies showing an insignificant relationship between housing prices and household formation. As Pasha and Lodhi (1994) mentioned, housing prices are possibly without any association with the decision to form a nuclear household. It is possible, nevertheless, that expectations of future rent levels add more bearing to an individual's decision rather than actual housing or rental price. Di and Liu (2006) noted that instead of current rent levels, young consumers usually base their decisions on expectations on changes in housing price and rent. The authors added that with increasing rent, young adults are less likely to separate from their parents' house.

There are other factors that might influence household formation. For instance, Pasha and Lodhi (1994) noted that new nuclear households seem to be formed by factors including migration with people coming from other places having more likelihood to be members of nuclear households. Di and Liu (2006) mentioned that crowding in terms of the number of individuals in each bedroom encourages young adults to vacate their parents' house. They also pointed out that undesirable characteristics of the neighborhood encourages separation but is not much significant on young adults' decision to leave their parents' house. It should be noted, however, that these other factors are not discussed as much as income, presence of children, etc.

3. Methodology

The authors of this study have undertaken a series of steps to arrive at the factors influencing the decision of individuals to be in extended and multi-family households in the Philippines.² The first step is the examination of the members of these households in areas not including the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) for the year 2020. BARMM would require a separate study to enable association of the context which might be far from similar from that in the other regions.³ For the rest of the areas, multinomial logistic regressions were undertaken.

A multinomial logistic regression is used when there is a categorical dependent variable. In this study, the categorical dependent variable is based on the household types of living alone, nuclear, extended and multi-family, and nonrelated. The formula used for the study is as follows:

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

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 ; α_j is the intercept; and β_j is the regression coefficient for the corresponding independent variable (see Anderson & Rutkowski 2007).

Figure 1 enumerates the dependent and independent variables of the multinomial logistic regression models for this study. The dependent variable is the outcome that an individual is in the following household types: alone, nuclear, extended and multi-family, and nonrelated. The independent variables include the individual's sex (female; male); marital status (single; married/common-law/live-in/widowed/divorced/separated/annulled); household with child (household without child; household with child); household with elderly (household without elderly; household with elderly); wealth estimate; working (not working; working); class of worker (worked for private household [domestic services]; worked for private business/enterprise/farm; worked for government/government corporation; self-employed without any paid employee; employer in own farm or business; worked with pay in own family-operated farm or business; worked without any pay in own family-oriented farm or business); place of work (same province, same city/municipality; same province, different city/municipality; different province, different city/municipality; foreign country); highest educational attainment (postgraduate; college; high school; elementary; vocational; preschool/kinder/no grade completed); religion (Roman Catholic; Islam; Iglesia ni Cristo; others); ethnicity (Bisaya; Cebuano; Ilocano; Ilonggo; others); housing tenure (own unit and lot; rent unit and lot; own or rent-free unit, rent or rent-free lot with consent; own or rent-free unit, rent-free lot without consent); financing of housing unit (Government assistance, Pag-IBIG, etc.; not government assistance, Pag-IBIG, etc.); residential construction price per square meter; urban (urban; rural); and LGU quadrant (high capacity, high performance;

² Population assessed are living in single house, duplex, and multi-unit residential. Those living in institutional living quarter, commercial/industrial/agricultural unit, and other housing unit are not covered by the study.

³ BARMM is an autonomous region with a legislative and judiciary system that is separate from that at the national level. Its ethnicity and culture are also distinct from those of the other regions.

low capacity, high performance; low capacity, low performance; high capacity, low performance).⁴ These variables were included using reviewed literature on potential factors influencing household formation as reference and based on data availability.

Figure 1. Dependent and independent variables in multinomial logistic regression models

Dependent Variable	Independent Variables
<ul style="list-style-type: none"> Household type 	<ul style="list-style-type: none"> 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 Residential construction price Urban LGU quadrant

Source: Authors

The Census of Population and Housing (CPH) lacks an income variable, but there are available data on household conveniences and utilities. A wealth index was then constructed. Weights for the household conveniences and utilities were estimated through Principal Components Analysis (PCA). The wealth index for person i is the following linear combination, giving larger weights to luxury household conveniences/utilities and lower weights to weakly correlated variables:

$$y_i = \alpha_1 \left(\frac{x_1 - \bar{x}_1}{s_1} \right) + \alpha_2 \left(\frac{x_2 - \bar{x}_2}{s_2} \right) + \dots + \alpha_k \left(\frac{x_k - \bar{x}_k}{s_k} \right)$$

where α is the weight for each household convenience/utility x_k for the first principal component y , and \bar{x}_k and s_k are the mean and standard deviation of household convenience/utility x_k (see Córdova 2009).

⁴ The LGU quadrant is based on a 2022 LGU segmentation report from the Local Government Academy (LGA) (2022). The residential construction price per square meter is based on construction statistics shared by the PSA (2024a-c).

Plugging in the wealth estimate along with the other selected variables, the equation is transformed into the following to be used for Model 1:

$$= e^{\frac{\alpha + \beta_1 \text{sex} + \beta_2 \text{maritalstatus} + \beta_3 \text{householdwithchild} + \beta_4 \text{householdwithelderly} + \beta_5 \text{wealth} + \beta_6 \text{working} + \beta_7 \text{classofworker} + \beta_8 \text{placeofwork} + \beta_9 \text{education} + \beta_{10} \text{religion} + \beta_{11} \text{ethnicity} + \beta_{12} \text{housingtenure} + \beta_{13} \text{governmentfinance} + \beta_{14} \text{constructionprice} + \beta_{15} \text{urban} + \beta_{16} \text{lgquadrant}}{\text{Probability of being in extended and multi – family household}}}$$

Model 2 was developed to include interaction variables in consideration of relationships found in reviewed literature. The interaction variables are sex and work, and household with child and residential construction price. The equation used in the second model is as follows:

$$= e^{\frac{\alpha + \beta_1 \text{sex} + \beta_2 \text{maritalstatus} + \beta_3 \text{householdwithchild} + \beta_4 \text{householdwithelderly} + \beta_5 \text{wealth} + \beta_6 \text{working} + \beta_7 \text{classofworker} + \beta_8 \text{placeofwork} + \beta_9 \text{education} + \beta_{10} \text{religion} + \beta_{11} \text{ethnicity} + \beta_{12} \text{housingtenure} + \beta_{13} \text{governmentfinance} + \beta_{14} \text{constructionprice} + \beta_{15} \text{urban} + \beta_{16} \text{lgquadrant} + \beta_{17} (\text{sex} * \text{working}) + \beta_{18} (\text{householdwithchild} * \text{constructionprice})}{\text{Probability of being in extended and multi – family household}}}$$

Through these multinomial logistic regression models, the increase and decrease of likelihood of being in an extended and multi-family household given an independent variable and controlling for others will be estimated. These enables the authors to identify factors that influence the choice for this type of household.

The models are fitted to individuals of ages 25 to 34 years old, which belong to the young adult generation whose living arrangements are potentially affected by decisions of work, marriage, childbirth, further education, etc; and are expected to be move out of parents' house to form new households.

CPH surveys do not follow the same observations of the same identification across years and the datasets do not necessarily contain exactly the same variables and values, posing limitations on analysis of data over census years. The authors, nevertheless, attempted to gain some insights from 2000 to 2020 CPH datasets to see whether the 2020 results of the selected multinomial logistic regression model are similar. The panel dataset was constructed by getting the means of continuous variables and the frequencies of selected groups of categorical variables.

The formula used for entity-fixed effects regression Model 3 is as follows:

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

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

Plugging in the variables of the study, Model 3 is as follows:

$$\begin{aligned}
& \text{extended and multi – family household}_{it} \\
& = \alpha_i + \beta_1 \text{single}_{it} + \beta_2 \text{householdwithelderly}_{it} + \beta_3 \text{working}_{it} \\
& + \beta_4 \text{sameplaceofwork}_{it} + \beta_5 \text{privatehouseholdwork}_{it} \\
& + \beta_6 \text{preschoolkindernograde}_{it} + \beta_7 \text{catholic}_{it} + \beta_8 \text{tagalog}_{it} \\
& + \beta_9 \text{ownamortize}_{it} + \beta_{10} \text{governmentfinanced}_{it} + \beta_{11} \text{urban}_{it} \\
& + \beta_{12} \text{lowperformancetecapacity}_{it} + \beta_{13} \text{wealth}_{it} + \beta_{14} \text{householdwithchild}_{it} \\
& + \beta_{15} \text{constructionprice}_{it} + \beta_{16} (\text{householdwithchild} * \text{constructionprice})_{it} \\
& + \mu_i + e_{it}
\end{aligned}$$

where entity $i = 1, 2, \dots, 20$ and time $t = 2000, 2010, \text{ and } 2020$. Observations were differentiated by age and sex, and the panel dataset was developed as though data from 25 to 34-year old females and males in non-BARMM areas in 2000 were collected as they grew older to 35 to 44 years old in 2010 and 45 to 54 years old in 2020.⁵

The formula used for entity and time-fixed effects regression Model 4 is as follows:

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

where entity $i = 1 \dots n$ and time $t = 1 \dots T$; Y_{it} is the dependent variable; α_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).

Including the interaction variable on household with child and residential construction price, Model 4 is as follows:

$$\begin{aligned}
& \text{extended and multi – family household}_{it} \\
& = \alpha_i + \beta_1 \text{single}_{it} + \beta_2 \text{householdwithelderly}_{it} + \beta_3 \text{working}_{it} \\
& + \beta_4 \text{sameplaceofwork}_{it} + \beta_5 \text{privatehouseholdwork}_{it} \\
& + \beta_6 \text{preschoolkindernograde}_{it} + \beta_7 \text{catholic}_{it} + \beta_8 \text{tagalog}_{it} \\
& + \beta_9 \text{ownamortize}_{it} + \beta_{10} \text{governmentfinanced}_{it} + \beta_{11} \text{urban}_{it} \\
& + \beta_{12} \text{lowperformancetecapacity}_{it} + \beta_{13} \text{wealth}_{it} + \beta_{14} \text{householdwithchild}_{it} \\
& + \beta_{15} \text{constructionprice}_{it} + \beta_{16} (\text{householdwithchild} * \text{constructionprice})_{it} \\
& + \delta_t + \mu_i + e_{it}
\end{aligned}$$

where entity $i = 1, 2, \dots, 20$ and time $t = 2000, 2010, \text{ and } 2020$.

⁵ Urban classification in 2010 was used in 2000 and LGU quadrant classification from LGA (2022) was used across years to address insufficient corresponding data.

4. Composition of Households

Extended and multi-family households are larger in size than the average household (see Table 1). In 2020, households had an average size of 4 while extended and multi-family households had an average size of 5. The multi-family households, as expected, were composed of the most number at 6 members. The additional number of members could be a cause of concern depending on the reasons for the construction of these households.

Table 1. Mean household size, 2020

	Size
Households	4.04
Extended and multi-family households	5.18
Extended households	4.53
Multi-family households	6.24

Source: Authors' estimate; basic data from PSA (n.d.-a)

Note: Not including BARMM

Table 2 shows the components of extended and multi-family households, similar to an exercise done by Stinner (1977) who also looked at mean household sizes. In 2020, the group of households whose head lives with own family has the largest mean size at six members, two of which are usually sons/daughters and another two are relatives outside the own family. Meanwhile, households whose head lives with root family has a lower mean size at three members, one of which is typically a sibling. For those whose head lives with other relatives, the size is at three members, two of which are non-own and non-root family relatives.

The composition of each type of extended and multi-family households provides insights on potential reasons for the formation of this household. The composition of households whose head lives with own family having the largest size compared with the other classifications might be due to the support needed by households with sons/daughters in the membership in terms of household management. The householders might have chosen to stay with their parents, go back to their parental house, or ask for help from other relatives while raising their own family. The low number of nonrelatives in this classification is also a potential indication that they have not employed helpers in the household. These assumptions, however, would need further verification.

Table 2. Components of extended and multi-family households, 2020

	Extended and Multi-family Households	Extended Households	Multi-family Households
Householder lives with own family	5.58	5.02	6.34
<i>Own family</i>	3.79	3.60	4.04
(Head)	1.00	1.00	1.00
(Spouse)	0.71	0.68	0.74

(Child)	2.08	1.92	2.31
<i>Relatives outside own family</i>	<i>1.73</i>	<i>1.39</i>	<i>2.21</i>
<i>Nonrelatives</i>	<i>0.06</i>	<i>0.03</i>	<i>0.09</i>
Householder lives with root family	3.26	2.84	4.80
<i>Root family</i>	<i>2.59</i>	<i>2.43</i>	<i>3.15</i>
(Head)	1.00	1.00	1.00
(Parent)	0.28	0.24	0.45
(Sibling)	1.30	1.19	1.70
<i>Relatives outside root family</i>	<i>0.59</i>	<i>0.35</i>	<i>1.44</i>
<i>Nonrelatives</i>	<i>0.09</i>	<i>0.06</i>	<i>0.21</i>
Householder lives with other relatives	2.94	2.77	4.71
<i>Family but non-own and nonroot</i>	<i>2.86</i>	<i>2.72</i>	<i>4.32</i>
(Head)	1.00	1.00	1.00
(Non-own and non-root family relatives)	1.86	1.72	3.32
<i>Nonrelatives</i>	<i>0.09</i>	<i>0.06</i>	<i>0.39</i>

Source: Authors' estimate; basic data from PSA (n.d.-a)

Note: Not including BARMM

5. Characteristics of 25 to 34-Year Old Young Adults in 2020

Table 3 shows the characteristics of 25 to 34-year old young adults in 2020 including the type of household in which they belong to. Majority of the 25 to 34-year old population are in nuclear households, but those in extended and multi-family households also represent a large proportion at around 36%. Compared to the 25 to 29-year olds, the proportion of those in this household type is less among those aged 30 to 34 years old perhaps because the younger age cohort are more mobile than the older age cohort. This could also be the age to seek opportunities outside the neighborhood or return to their nuclear families after finishing school. Most likely the younger cohort also have the flexibility to co reside with non-relatives as shown in the higher proportion of those residing in nonfamily households. The difference of only around 3 percentage points within the two sub-age groups may also show that both groups are still likely to have similar housing decisions holding all other factors constant.

It is interesting to note that about two thirds of this age group (25-34 years old) are not single; they are either with partners or have been married. The proportion of those who are single is higher among the younger age group of 25-29 year olds compared to the 30-34 year olds by around 15 percentage points. While most of those in this age group marry or are in a relationship at a young age, this does not necessarily result to new household formation.

Table 3. Characteristics of 25 to 34-year old young adults in 2020 (%)

	25-34	25-29	30-34
Household type			
Alone	2.90	2.93	2.87
Nuclear	59.91	58.35	61.66
Extended and multi-family	36.08	37.48	34.51
Nonrelated	1.11	1.25	0.95
Marital status			
Single	28.33	35.38	20.40
Not single	71.67	64.61	79.59
Unspecified	0.01	0.01	0.01
Household with elderly			
Household without elderly	89.95	90.6	89.21
Household with elderly	10.05	9.4	10.79
Class of worker			
Worked for private household (domestic services)	3.14	2.74	3.60
Worked for private business/enterprise/farm	42.75	43.36	42.05
Worked for government/government corporation	6.03	5.72	6.37
Self-employed without any paid employee	11.46	9.77	13.35
Employer in own farm or business	1.35	1.1	1.63
Worked with pay in own family-operated farm or business	0.26	0.3	0.22
Worked without any pay in own family-oriented farm or business	2.32	2.4	2.23
Unspecified	32.69	34.61	30.53
Place of work			
Same province, same city/municipality	46.51	44.49	48.77
Same province, different city/municipality	9.15	9.53	8.72
Different province, different city/municipality	7.59	7.95	7.18
Foreign country	3.12	2.60	3.71
Unspecified	33.63	35.43	31.62
Education			
Postgraduate	0.43	0.40	0.46
College	38.54	40.88	35.91
High school	42.32	40.98	43.82
Elementary	13.05	12.21	13.99
Vocational	4.55	4.44	4.67
Preschool/kinder/no grade completed	0.77	0.74	0.81
Unspecified	0.34	0.35	0.33
Religion			
Islam	2.39	2.48	2.29
Iglesia ni Cristo	2.69	2.65	2.74
Roman Catholic (excluding Catholic Charismatic)	82.69	82.55	82.85
Others	12.21	12.30	12.11
Unspecified	0.01	0.01	0.01

Ethnicity			
Bisaya	15.01	14.9	15.13
Cebuano	8.37	8.42	8.31
Ilocano	8.32	8.23	8.43
Ilonggo	8.09	7.95	8.26
Tagalog	29.01	28.9	29.13
Others	31.18	31.59	30.72
Unspecified	0.02	0.01	0.02
Housing tenure			
Own or amortize unit and lot	56.17	55.83	56.54
Rent unit and lot	13.73	13.95	13.47
Own or rent-free unit, rent or rent-free lot with consent	27.61	27.71	27.49
Own or rent-free unit, rent-free lot without consent	2.31	2.33	2.30
Unspecified	0.19	0.18	0.21
Financing of housing unit - Government assistance, Pag-IBIG, etc.			
Yes	3.55	3.33	3.80
No	32.17	32.06	32.30
Unspecified	64.28	64.62	63.90
Urban			
Urban	58.04	57.95	58.13
Rural	41.96	42.05	41.87
LGU quadrant			
High capacity, high performance	57.07	56.93	57.22
Low capacity, high performance	9.59	9.63	9.55
Low capacity, low performance	18.81	18.98	18.61
High capacity, low performance	14.37	14.3	14.46
Unspecified	0.16	0.16	0.16
Sex			
Female	48.75	48.98	48.49
Male	51.25	51.02	51.51
Working			
Not working	31.62	33.5	29.51
Working	68.38	66.5	70.49
Household with child			
Household without child	28.29	31.80	24.33
Household with child	71.71	68.20	75.67
Wealth*			
	1.75	1.73	1.77
Residential construction price per square meter (PHP)*			
	10,336	10,337	10,335

Source: Authors' estimate; basic data from PSA (n.d.-a) & LGA (2022)

Note: Not including BARMM; Unspecified may include those unreported, unknown, missing values, and not in specified categories

*Means of the wealth index estimate and residential construction price per square meter are reflected instead of percentages because these are continuous variables

A higher proportion of individuals lives with a child than with an elderly person. For individuals aged 25 to 34 years old, around 10% live with an elderly person and around 72% live with a child. The difference may have implications on whether these individuals form nuclear or extended and multi-family households.

Around 68% of the population have work, which could enable them to form their own households. In terms of class of work, the proportions are similar for the sub-age groups. Generally, among the 25 to 34-year olds, 3% provide domestic services for a private household; 43% work for private business, enterprise, or farm; 2% work without pay in own family-operated farm or business; and 11% are self-employed. There are also those who work for the government (6%). 47% of the individuals within the age group work in the same province and city/municipality, while 9% work in the same province but different city/municipality and 8% work in a different province and different city/municipality.

In terms of education, majority of the individuals have completed elementary. 39% have a college degree, 42% finished high school, and 13% completed elementary. Those who went through preschool, kinder, or did not complete a grade only make up a small proportion but it would be insightful to determine whether the decision of such individuals have an influence on household formation vis-à-vis the others who have higher educational attainment.

Cultural, housing-related, and external factors are also taken into account. For cultural factors, religion and ethnicities are considered. Majority of the population are Roman Catholic at 83%, and many are of Tagalog ethnicity at 29%. Mean residential construction price is at PHP 10,336 per square meter. Majority of the population are in housing units owned or being amortized by the households, but only 4% have government assistance, Pag-IBIG, GSIS, SSS, LBP, etc. as financing source. 58% are in urban areas and 57% are in high-capacity and high-performing LGUs.

6. Factors Influencing Formation of Extended and Multi-Family Households in 2020

Multinomial regression models were run to determine factors influencing the formation of extended and multi-family households in 2020. Annex 1 shows the relative risk ratios of being in other household types with the baseline outcome of being in an extended and multi-family household. The p-value reflects that both models have explanatory power, but the slightly higher pseudo R^2 for Model 2 encourages that focus be made on this second model. For ease of interpretation especially for Model 2, marginal effects were estimated and shown in Table 4.

Table 4. Marginal effects of selected variables on being in extended and multi-family households, 2020

	MODEL 1		MODEL 2	
Sex: male <base = female>				
Alone	0.008	***	0.008	***
	(0.000)		(0.000)	
Nuclear	-0.020	***	-0.029	***
	(0.000)		(0.000)	
Extended and multi-family	0.016	***	0.025	***
	(0.000)		(0.000)	
Nonrelated	-0.004	***	-0.004	***
	(0.000)		(0.000)	
Marital status: single <base = not single>				
Alone	-0.047	***	-0.048	***
	(0.000)		(0.000)	
Nuclear	-0.002	***	0.013	***
	(0.000)		(0.000)	
Extended and multi-family	0.055	***	0.042	***
	(0.000)		(0.000)	
Nonrelated	-0.006	***	-0.007	***
	(0.000)		(0.000)	
Household with child <base = household without child>				
Alone	-0.122	***	-0.119	***
	(0.000)		(0.000)	
Nuclear	-0.065	***	-0.070	***
	(0.000)		(0.000)	
Extended and multi-family	0.220	***	0.221	***
	(0.000)		(0.000)	
Nonrelated	-0.033	***	-0.033	***
	(0.000)		(0.000)	
Household with elderly <base = household without elderly>				
Alone	-0.031	***	-0.031	***
	(0.000)		(0.000)	
Nuclear	-0.372	***	-0.371	***
	(0.000)		(0.000)	
Extended and multi-family	0.407	***	0.407	***
	(0.000)		(0.000)	
Nonrelated	-0.005	***	-0.005	***
	(0.000)		(0.000)	
Wealth				
Alone	-0.011	***	-0.011	***
	(0.000)		(0.000)	

Nuclear	-0.057 *** (0.000)	-0.055 *** (0.000)
Extended and multi-family	0.067 *** (0.000)	0.065 *** (0.000)
Nonrelated	0.001 *** (0.000)	0.001 *** (0.000)
Working <base = not working>		
Alone	0.003 *** (0.001)	-0.007 *** (0.001)
Nuclear	-0.166 *** (0.001)	-0.138 *** (0.001)
Extended and multi-family	0.158 *** (0.001)	0.140 *** (0.001)
Nonrelated	0.006 *** (0.000)	0.005 *** (0.000)
Class of worker: worked for private business/enterprise/farm <base = worked for private household (domestic services)>		
Alone	-0.006 *** (0.000)	-0.005 *** (0.000)
Nuclear	0.030 *** (0.001)	0.014 *** (0.001)
Extended and multi-family	-0.011 *** (0.001)	0.004 *** (0.001)
Nonrelated	-0.014 *** (0.000)	-0.013 *** (0.000)
Class of worker: worked for government/government corporation <base = worked for private household (domestic services)>		
Alone	-0.005 *** (0.000)	-0.005 *** (0.000)
Nuclear	0.049 *** (0.001)	0.038 *** (0.001)
Extended and multi-family	-0.027 *** (0.001)	-0.016 *** (0.001)
Nonrelated	-0.017 *** (0.000)	-0.017 *** (0.000)
Class of worker: self-employed without any paid employee <base = worked for private household (domestic services)>		
Alone	-0.008 *** (0.000)	-0.007 *** (0.000)
Nuclear	0.071 *** (0.001)	0.059 *** (0.001)
Extended and multi-family	-0.045 *** (0.001)	-0.034 *** (0.001)

Nonrelated	-0.019 *** (0.000)	-0.018 *** (0.000)
Class of worker: employer in own farm or business <base = worked for private household (domestic services)>		
Alone	-0.009 *** (0.000)	-0.008 *** (0.000)
Nuclear	0.075 *** (0.001)	0.060 *** (0.001)
Extended and multi-family	-0.050 *** (0.001)	-0.036 *** (0.001)
Nonrelated	-0.017 *** (0.000)	-0.016 *** (0.000)
Class of worker: worked with pay in own family-operated farm or business <base = worked for private household (domestic services)>		
Alone	-0.031 *** (0.001)	-0.030 *** (0.001)
Nuclear	-0.097 *** (0.003)	-0.120 *** (0.003)
Extended and multi-family	0.141 *** (0.003)	0.162 *** (0.003)
Nonrelated	-0.013 *** (0.001)	-0.013 *** (0.001)
Class of worker: worked without any pay in own family-oriented farm or business <base = worked for private household (domestic services)>		
Alone	-0.022 *** (0.000)	-0.021 *** (0.000)
Nuclear	0.013 *** (0.001)	-0.001 (0.001)
Extended and multi-family	0.027 *** (0.001)	0.040 *** (0.001)
Nonrelated	-0.018 *** (0.000)	-0.018 *** (0.000)
Place of work: same province, different city/municipality <base = same province, same city/municipality>		
Alone	-0.006 *** (0.000)	-0.006 *** (0.000)
Nuclear	-0.036 *** (0.000)	-0.036 *** (0.000)
Extended and multi-family	0.047 *** (0.000)	0.047 *** (0.000)
Nonrelated	-0.005 *** (0.000)	-0.005 *** (0.000)

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

Alone	-0.008 ***	-0.008 ***
	(0.000)	(0.000)
Nuclear	-0.003 ***	-0.005 ***
	(0.000)	(0.000)
Extended and multi-family	0.018 ***	0.019 ***
	(0.000)	(0.000)
Nonrelated	-0.006 ***	-0.006 ***
	(0.000)	(0.000)

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

Alone	-0.013 ***	-0.013 ***
	(0.000)	(0.000)
Nuclear	-0.005 ***	-0.003 ***
	(0.001)	(0.001)
Extended and multi-family	0.028 ***	0.027 ***
	(0.001)	(0.001)
Nonrelated	-0.011 ***	-0.011 ***
	(0.000)	(0.000)

Education: postgraduate <base = preschool/kinder/no grade completed>

Alone	0.014 ***	0.013 ***
	(0.001)	(0.001)
Nuclear	0.017 ***	0.016 ***
	(0.002)	(0.002)
Extended and multi-family	-0.034 ***	-0.032 ***
	(0.002)	(0.002)
Nonrelated	0.003 ***	0.003 ***
	(0.001)	(0.001)

Education: college <base = preschool/kinder/no grade completed>

Alone	-0.001	-0.001
	(0.001)	(0.001)
Nuclear	-0.004 **	-0.007 ***
	(0.002)	(0.002)
Extended and multi-family	0.004 **	0.006 ***
	(0.001)	(0.001)
Nonrelated	0.001 **	0.001 **
	(0.000)	(0.000)

Education: high school <base = preschool/kinder/no grade completed>

Alone	-0.007 ***	-0.006 ***
	(0.001)	(0.001)
Nuclear	0.029 ***	0.021 ***
	(0.002)	(0.002)
Extended and multi-family	-0.026 ***	-0.018 ***

	(0.001)		(0.001)
Nonrelated	0.004 ***		0.004 ***
	(0.000)		(0.000)
Education: elementary <base = preschool/kinder/no grade completed>			
Alone	-0.008 ***		-0.008 ***
	(0.001)		(0.001)
Nuclear	0.050 ***		0.041 ***
	(0.002)		(0.002)
Extended and multi-family	-0.044 ***		-0.035 ***
	(0.002)		(0.002)
Nonrelated	0.002 ***		0.002 ***
	(0.000)		(0.000)
Education: vocational <base = preschool/kinder/no grade completed>			
Alone	-0.006 ***		-0.006 ***
	(0.001)		(0.001)
Nuclear	0.003		-0.003 **
	(0.002)		(0.002)
Extended and multi-family	0.002		0.008 ***
	(0.002)		(0.002)
Nonrelated	0.001 **		0.001 ***
	(0.000)		(0.000)
Religion: Islam <base = Roman Catholic (not including Catholic Charismatic)>			
Alone	-0.006 ***		-0.006 ***
	(0.000)		(0.000)
Nuclear	0.021 ***		0.021 ***
	(0.001)		(0.001)
Extended and multi-family	-0.011 ***		-0.011 ***
	(0.001)		(0.001)
Nonrelated	-0.004 ***		-0.004 ***
	(0.000)		(0.000)
Religion: Iglesia ni Cristo <base = Roman Catholic (not including Catholic Charismatic)>			
Alone	-0.001 ***		-0.001 ***
	(0.000)		(0.000)
Nuclear	0.019 ***		0.019 ***
	(0.001)		(0.001)
Extended and multi-family	-0.016 ***		-0.015 ***
	(0.001)		(0.001)
Nonrelated	-0.003 ***		-0.003 ***
	(0.000)		(0.000)
Religion: others <base = Roman Catholic (not including Catholic Charismatic)>			
Alone	-0.001 ***		-0.001 ***
	(0.000)		(0.000)
Nuclear	0.015 ***		0.015 ***

	(0.000)		(0.000)
Extended and multi-family	-0.013 ***		-0.012 ***
	(0.000)		(0.000)
Nonrelated	-0.001 ***		-0.001 ***
	(0.000)		(0.000)
Ethnicity: Bisaya <base = Tagalog>			
Alone	-0.004 ***		-0.004 ***
	(0.000)		(0.000)
Nuclear	-0.026 ***		-0.026 ***
	(0.000)		(0.000)
Extended and multi-family	0.029 ***		0.029 ***
	(0.000)		(0.000)
Nonrelated	0.000 ***		0.000 ***
	(0.000)		(0.000)
Ethnicity: Cebuano <base = Tagalog>			
Alone	-0.004 ***		-0.005 ***
	(0.000)		(0.000)
Nuclear	-0.004 ***		-0.003 ***
	(0.000)		(0.000)
Extended and multi-family	0.011 ***		0.010 ***
	(0.000)		(0.000)
Nonrelated	-0.003 ***		-0.003 ***
	(0.000)		(0.000)
Ethnicity: Ilocano <base = Tagalog>			
Alone	-0.003 ***		-0.003 ***
	(0.000)		(0.000)
Nuclear	-0.036 ***		-0.037 ***
	(0.000)		(0.000)
Extended and multi-family	0.037 ***		0.039 ***
	(0.000)		(0.000)
Nonrelated	0.002 ***		0.002 ***
	(0.000)		(0.000)
Ethnicity: Ilonggo <base = Tagalog>			
Alone	-0.005 ***		-0.005 ***
	(0.000)		(0.000)
Nuclear	-0.035 ***		-0.035 ***
	(0.000)		(0.000)
Extended and multi-family	0.040 ***		0.040 ***
	(0.000)		(0.000)
Nonrelated	-0.001 ***		-0.001 ***
	(0.000)		(0.000)
Ethnicity: others <base = Tagalog>			
Alone	-0.004 ***		-0.004 ***

	(0.000)		(0.000)	
Nuclear	-0.035 ***		-0.035 ***	
	(0.000)		(0.000)	
Extended and multi-family	0.039 ***		0.039 ***	
	(0.000)		(0.000)	
Nonrelated	0.000		0.000	
	(0.000)		(0.000)	
Housing tenure: rent unit and lot <base = own or amortize unit and lot>				
Alone	0.008 ***		0.008 ***	
	(0.000)		(0.000)	
Nuclear	-0.039 ***		-0.039 ***	
	(0.000)		(0.000)	
Extended and multi-family	0.016 ***		0.016 ***	
	(0.000)		(0.000)	
Nonrelated	0.015 ***		0.015 ***	
	(0.000)		(0.000)	
Housing tenure: own or rent-free unit, rent or rent-free lot with consent <base = own or amortize unit and lot>				
Alone	0.003 ***		0.003 ***	
	(0.000)		(0.000)	
Nuclear	0.024 ***		0.023 ***	
	(0.000)		(0.000)	
Extended and multi-family	-0.033 ***		-0.033 ***	
	(0.000)		(0.000)	
Nonrelated	0.006 ***		0.006 ***	
	(0.000)		(0.000)	
Housing tenure: own or rent-free unit, rent-free lot without consent <base = own or amortize unit and lot>				
Alone	-0.001 ***		-0.001 ***	
	(0.000)		(0.000)	
Nuclear	-0.003 ***		-0.004 ***	
	(0.001)		(0.001)	
Extended and multi-family	0.003 ***		0.003 ***	
	(0.001)		(0.001)	
Nonrelated	0.001 ***		0.001 ***	
	(0.000)		(0.000)	
Financing of housing unit - Government assistance, Pag-IBIG, etc. <base = no>				
Alone	0.004 ***		0.004 ***	
	(0.000)		(0.000)	
Nuclear	-0.008 ***		-0.007 ***	
	(0.001)		(0.001)	
Extended and multi-family	0.002 ***		0.001 *	
	(0.001)		(0.001)	

Nonrelated	0.002 *** (0.000)	0.002 *** (0.000)
Residential construction price per square meter		
Alone	0.000 *** (0.000)	0.000 *** (0.000)
Nuclear	0.000 *** (0.000)	0.000 *** (0.000)
Extended and multi-family	0.000 *** (0.000)	0.000 *** (0.000)
Nonrelated	0.000 *** (0.000)	0.000 *** (0.000)
Urban <base = rural>		
Alone	0.005 *** (0.000)	0.005 *** (0.000)
Nuclear	0.004 *** (0.000)	0.004 *** (0.000)
Extended and multi-family	-0.011 *** (0.000)	-0.012 *** (0.000)
Nonrelated	0.003 *** (0.000)	0.003 *** (0.000)
LGU quadrant: high capacity, high performance <base = low capacity, low performance>		
Alone	-0.001 *** (0.000)	-0.001 *** (0.000)
Nuclear	0.015 *** (0.000)	0.014 *** (0.000)
Extended and multi-family	-0.011 *** (0.000)	-0.010 *** (0.000)
Nonrelated	-0.003 *** (0.000)	-0.003 *** (0.000)
LGU quadrant: low capacity, high performance <base = low capacity, low performance>		
Alone	-0.002 *** (0.000)	-0.001 *** (0.000)
Nuclear	0.016 *** (0.000)	0.016 *** (0.000)
Extended and multi-family	-0.011 *** (0.000)	-0.010 *** (0.000)
Nonrelated	-0.004 *** (0.000)	-0.004 *** (0.000)
LGU quadrant: high capacity, low performance <base = low capacity, low performance>		
Alone	0.003 *** (0.000)	0.003 *** (0.000)
Nuclear	0.007 *** (0.000)	0.006 *** (0.000)

Extended and multi-family	-0.007 *** (0.000)	-0.006 *** (0.000)
Nonrelated	-0.003 *** (0.000)	-0.003 *** (0.000)
Working female <base = non-working female>		
Alone		0.012 *** (0.000)
Nuclear		-0.213 *** (0.001)
Extended and multi-family		0.192 *** (0.001)
Nonrelated		0.009 *** (0.000)
Working male <base = non-working male>		
Alone		-0.019 *** (0.001)
Nuclear		-0.064 *** (0.001)
Extended and multi-family		0.080 *** (0.001)
Nonrelated		0.002 *** (0.000)
Household with child and minimum residential construction price per square meter <base = household without child and same price>		
Alone		-0.105 *** (0.001)
Nuclear		-0.096 *** (0.001)
Extended and multi-family		0.227 *** (0.001)
Nonrelated		-0.026 *** (0.000)
Household with child and mean residential construction price per square meter <base = household without child and same price>		
Alone		-0.119 *** (0.000)
Nuclear		-0.070 *** (0.000)
Extended and multi-family		0.222 *** (0.000)
Nonrelated		-0.032 *** (0.000)

Household with child and maximum residential construction price per square meter <base = household without child and same price>

Alone	-0.165 *** (0.002)
Nuclear	0.017 *** (0.003)
Extended and multi-family	0.207 *** (0.003)
Nonrelated	-0.059 *** (0.002)

*** p<.01, ** p<.05, * p<.1

Source of basic data: PSA (n.d.-a); 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

6.1. *Sex and Work*

Compared to males, females have a higher probability of being in an extended and multi-family household by 3 percentage points. Additionally, a working female has a higher probability of being in this household type compared to a non-working female by 19 percentage points. This gap is larger than that found between working and non-working males which is at 8 percentage points. There is indeed a higher probability among workers to be in an extended and multi-family households, but the significant results from the interaction shows that sex influences the effect of the working variable on the outcome. The findings further give rise to the idea that women need help from extended or multi-family household members in household management especially if they are working. In other words, relatives may be stepping in to take on roles that women were previously known to have in households.

6.2. *Marital status*

Individuals with marital status of single are associated with having higher probability of being in extended and multi-family households by 4 percentage points compared to those who are not single. These people may be seeing the potential benefits of sharing resources with relatives instead of living alone. For instance, payments for household conveniences like washing machines can be shared among extended and multi-family household members. If the household members do contribute similarly in terms of finances, then grouping into such a household type becomes a win-win situation.

6.3. *Household with child and Residential construction price per square meter*

Those who live in a household with a child have higher probability of being in an extended and multi-family household by 22 percentage points. Interacting this variable with residential construction price per square meter retains the higher probability among individuals in a household with child over without child, but the gap appears to slightly decrease as the construction price increases. At higher construction prices set at the maximum, there is already a higher probability for individuals in a household with child to be in a nuclear household by 2 percentage points. The result could be tied to household wealth, whereby households that could afford higher housing prices have the capacity to pay for own housing. Having a child and the income to pay for housing increases the probability of new household formation and the choice of living with own family only.

6.4. *Household with elderly person*

Having an elderly person in the household has also shown a significant influence on being in an extended and multi-family household. Individuals in the household have a higher probability of being in an extended and multi-family household by 41 percentage points compared to those who are not living with an elderly person. The finding is likely to be related to sociocultural factors, whereby younger generation are expected to care for their elderly relatives. Old people may be staying with relatives to facilitate receiving help for activities they no longer are able to do. The estimate for being in a nuclear household also reflects that individuals living with an elderly person have a lower probability of being in nuclear household by 37 percentage points. This even more highlights that elderly people influence the formation of extended households.

6.5. *Wealth*

On average, the difference in the probability of being in an extended and multi-family household associated with a one-unit increase in the wealth estimate is an increase of 7 percentage points. Wealthier individuals are then more likely to be in this extended and multi-family household type. This is a different result from those found in some other studies wherein higher income encourages individuals to form new households. On the other hand, the finding is more in line with the concept presented in Reyes (2018) in the sense that members in extended family households can actually live independently and higher income is associated with lower inequality in financial contributions. Choosing to be in an extended and multi-family household may then be more for convenience or the presence of elderly parents rather than due to extreme financial difficulties. The finding, however, is limited given the nature of the wealth estimate which was based on household conveniences/utilities of households and given the lack of income or expenditure-related data at the individual level.

6.6. *Class of work*

The following class of work of individuals is associated with a higher probability of being in an extended and multi-family household compared to work in private household for domestic services: work in private business, enterprise, or farm; with pay in own family-operated farm or business; and without pay in own family-oriented farm or business. It appears that the extension is made when individuals work for private businesses, enterprises, or farms; and even more so if the nature is family-oriented. It is possible that relatives who work for family-oriented farms or businesses are forming a single household for efficiency purposes. For instance, coming from a single household may facilitate allocation of farm or business income for expenses, transportation to and from work engagements, etc.

6.7. *Place of Work*

The estimates for place of work show the higher probability to be in extended and multi-family households among individuals whose place of work is in a different area than the residence compared to those who work and live in the same province and same city/municipality. The probability is higher by 5 percentage points for those who work in the same province but different city/municipality; 2 percentage points for those working in a different province and city/municipality; and 3 percentage points for individuals working in a foreign country. This finding can be tied to the idea that individuals are concerned about security and management of the household when they are working in an area different from their residence. Some relatives might be getting the role of ensuring that this security and management are in place probably by working close to or staying in the residence.

6.8. *Education*

In terms of highest educational attainment, only individuals who finished college or vocation have higher probability of being in extended and multi-family households compared to those who finished preschool, kinder, or did not complete any grade. The probability is higher by 1 percentage point for those who finished college and those who finished with a vocation. Perhaps this is an indication of the individuals' perceived capacity to include other relatives as members in the household. Meanwhile, the lower probability of being in an extended and multi-family household for postgraduates compared to those who finished preschool, kinder, or did not complete any grade may be related to their capacity to earn. In fact, they even have a higher probability of living alone by 1 percentage point.

6.9. *Religion*

Compared to individuals whose religion is Roman Catholic, persons whose religion is Islam and Iglesia ni Cristo have a lower probability of being in extended and multi-family household by 1 to 2 percentage points. These estimates could indicate a tightknit relationship even among non-own and non-root Catholic family members. It should be re-emphasized, however, that the BARMM population was not included in this study and their religions may have a different influence on being in extended and multi-family households.

6.10. *Ethnicity*

Bisaya, Cebuano, Ilocano, and Ilonggo ethnicities have higher probability of being in an extended and multi-family household compared to the Tagalog by up to 4 percentage points. Similar to religion, these ethnicities may have a tightknit relationship that influences the decision of individuals to group together as a household. The lower likelihood of Cebuanos and Ilonggos of living alone, with nonrelatives, or in nuclear households compared to the Tagalogs increases support for the closeness among their non-own and non-root families.

6.11. *Housing Tenure*

Individuals who rent unit and lot, as well as those who use a lot without consent, have higher probability of being in extended and multi-family households compared to those who own or amortize unit and lot by 2 and 0.3 percentage points respectively. For these individuals, shared housing provides economies of scale. Meanwhile, individuals who rent a unit or lot for free with consent have lower likelihood of being in extended and multi-family households since free use of the housing unit increases their disposable income and creates no pressure on their budget. Moreover, fewer number of occupants would mean more space per person.

6.12. *Financing of Housing Unit – Government Assistance, Pag-IBIG, GSIS, SSS, LBP, and Others*

Persons who have sourced housing unit financing through government assistance, Pag-IBIG, GSIS, SSS, LBP, etc. have a higher probability of living alone, with nonrelatives, or in extended and multi-family households but a lower probability of being in a nuclear household. This could indicate that government housing financial programs do not necessarily support individuals in forming nuclear households. Instead, persons who have made use of government financing for housing have influenced them to live alone, with nonrelatives, or with non-own and non-root relatives perhaps to improve on housing affordability. These persons may even include informal

settlers since around 1% of those who use such a financing source are 25 to 34-year old young adults who live in single house, duplex, and multi-unit residential and occupy lots without consent.

6.13. *Urban*

Compared to rural dwellers, people who live in urban areas are less probable to be in extended and multi-family households by 1 percentage point. Spatial constraints of housing units in urban areas would limit the number of persons that occupy a housing unit as this can lead to congestion. This is supported by the estimates for the other household types wherein there is higher probability of living alone, with nonrelatives, or in nuclear households.

6.14. *LGU Quadrants*

Individuals living in the following LGU quadrants have lower probability of being in extended and multi-family households compared to those in low capacity and low performance LGUs: high capacity and high performance, low capacity and high performance, and high capacity and low performance. The only household type associated with a higher probability is the nuclear household type. This implies that the population is somehow benefiting from being in either or both a high capacity and/or high performance LGU in the sense that they can form nuclear households.

7. Longitudinal Analysis of Factors Influencing Formation of Extended and Multi-family Households from 2000 to 2020

A panel of age cohort of individuals 25 to 34 years old was created to further assess the behavior of the cohort overtime and what influenced the formation of extended households. Table 5 presents the characteristics of these age cohort from 2000 to 2020.

Some changes in the characteristics of 25 to 34-year old young adults of year 2000 are observed.⁶ For instance, the proportion of the population in extended and multi-family households was at 32% in 2000, 27% in 2010, and 34% in 2020. It is also noticeable that the sub-age group of 30 to 34-year olds had lower proportion in 2000 compared to the lower sub-age group of 25 to 29-year olds, but they had higher proportion in 2020. Some changes including general increases in the proportion of those who live in urban areas, work in the same area of residence, and own/amortize unit and lot may be related to eventual realization of desired residential and work aspirations over the years given an increase in mean wealth estimates. However, there may have been constraints on the attainment of these aspirations such as increases in mean residential construction price. Meanwhile, marital status appears to change over the years as the proportion of those who are

⁶ Means of the constructed panel dataset for 2000 to 2020 were used in generating the table.

single generally decreased from 25% to 6% from 2000 to 2020. Around 12% of individuals had an elderly person in their household throughout the years. The proportion of those in household with a child fluctuated over the years, being the least in 2020 at 66% and it was even 60% for the 50 to 54 sub-age group. It is possible that the COVID-19 pandemic was a factor in the extension of households in 2020 and some changes in the independent variables, supporting the importance of time-fixed effects in the regression model.

Table 5. Characteristics of 25 to 34-year old young adults of year ,2000 to 2020 (in percent)

	2000		2010				2020		
	25-34	25-29	30-34	35-44	35-39	40-44	45-54	45-49	50-54
Extended and multi-family	31.66	34.67	28.65	26.69	26.76	26.63	33.59	30.68	36.51
Single	25.23	33.41	17.06	10.66	12.02	9.29	5.71	6.31	5.11
Household with elderly	10.67	10.20	11.14	12.69	12.53	12.85	12.45	13.41	11.50
Worked for private household (domestic services)	3.80	3.71	3.89	3.01	3.03	2.99	3.77	4.08	3.46
Same province, same city/municipality for place of work	46.14	43.98	48.29	54.35	53.08	55.63	55.59	55.68	55.50
Preschool/kinder/no grade completed	1.51	1.49	1.53	1.37	1.34	1.41	1.25	1.20	1.30
Roman Catholic (including Catholic Charismatic)	83.72	83.78	83.66	83.56	83.58	83.54	82.87	82.79	82.95
Tagalog	30.13	30.18	30.07	26.58	26.61	26.55	27.43	27.54	27.33
Own or amortize unit and lot	47.49	47.42	47.56	63.29	62.08	64.51	63.25	62.04	64.47
Financing of housing unit - Government assistance, Pag-IBIG, etc.	2.17	2.09	2.25	3.65	3.61	3.68	4.02	4.08	3.96
Urban	47.08	47.37	46.79	47.48	48.03	46.93	55.06	55.65	54.46
Low-capacity and low-performing LGU	19.54	19.66	19.42	18.84	18.81	18.87	18.61	18.54	18.69
Working	71.31	70.91	71.71	66.30	65.87	66.72	69.07	70.82	67.32
Household with child	81.84	78.45	85.22	86.42	87.30	85.54	66.48	72.51	60.45
Wealth*	1.02	1.01	1.03	1.58	1.56	1.59	1.84	1.83	1.84
Residential construction price per square meter (PHP)*	4,620	4,634	4,605	7,274	7,286	7,261	10,287	10,293	10,281

Source: Authors' estimate; basic data from PSA (n.d.-a-c)

Note: Not including BARMM; *Means of the wealth index estimate and residential construction price per square meter are reflected instead of means of percentages because these are continuous variables

Models 3 and 4 are fixed effects models that address unobserved factors that do not change across time but differ across entities (see Table 6). The difference of Model 4 lies in the addition of time-fixed effects that address unobserved factors that change across time but do not differ across entities. This model was selected because of the higher overall R^2 . Regression coefficients in Model 4 show significance in the following variables: household with elderly; preschool/kinder/no grade completed; household with child; and interaction of household with child and residential construction price.

Similar with the relationship found in the Model 2, Model 4 presents a positive significant influence of having an elderly person in the household on being in an extended and multi-family household. A 1-percentage point increase in the proportion of individuals living with an elderly person increases the proportion of those in extended and multi-family households by 0.68 percentage points. Again, reflecting the nature of elderly care arrangement in the country where the younger generation or relatives of the elderly live with them. The findings also reflect the relevance of housing as an asset that is usually passed on to the next of kin. The elderly are often those with their own homes. With rising price of housing and lower purchasing power of population in the country, the decision to stay with parents even among married children is more likely to happen.

For highest educational attainment, Model 2 and 4 results are also similar. A 1-percentage point increase in the proportion of individuals who finished preschool, kinder, or did not complete any grade decreases the proportion of those in extended and multi-family households by 1.96 percentage points. These individuals may lack the capacity to sustain an extended and multi-family household or these individuals are highly mobile and tend to have short-term or temporary housing arrangement.

The results for individuals living in household with child are different in Model 4 compared to Model 2. Model 4 shows that a 1-percentage point increase in the proportion of individuals living with a child decreases the proportion of those in extended and multi-family households by 1.15 percentage points. The relationship becomes positive when the variable is interacted with residential construction price. Unlike in Model 2, Model 4 results indicate that households with children tend to have extended and multi-family households with higher residential construction prices. These highlight the impact of higher housing prices on the decision of households with a child in household formation.

The insignificant coefficients for the other variables should not immediately be associated with a lack of relationship between these potential factors and household formation. Further studies should be conducted to establish this relationship or the lack thereof. Availability of data after the COVID-19 pandemic period will be an opportunity to determine whether the 2020 results can be more generalized.

Table 6. Regression coefficients of fixed effects models, 2000 to 2020

	MODEL 3		MODEL 4	
Single	-0.165	***	-0.006	
	(0.059)		(0.082)	
Household with elderly	0.511	**	0.684	***
	(0.233)		(0.235)	
Worked for private household (domestic services)	-0.096		-0.031	
	(0.196)		(0.192)	
Same province, same city/municipality	-0.042		-0.142	
	(0.108)		(0.118)	
Preschool/kinder/no grade completed	-1.042		-1.964	**
	(0.938)		(0.930)	
Roman Catholic (including Catholic Charismatic)	0.019		-0.373	
	(0.498)		(0.492)	
Tagalog	-0.610	*	-0.261	
	(0.319)		(0.330)	
Own or amortize unit and lot	0.115		-0.569	
	(0.307)		(0.398)	
Financing of housing unit - Government assistance, Pag-IBIG, etc.	-0.862		0.047	
	(0.991)		(0.970)	
Urban	0.319		0.216	
	(0.322)		(0.298)	
Low capacity, low performance	0.190		-0.326	
	(0.448)		(0.467)	
Wealth	3.626		-17.037	
	(12.996)		(14.554)	
Household with child	-1.257	***	-1.150	***
	(0.175)		(0.164)	
Residential construction price per square meter	-0.008	***	0.001	
	(0.002)		(0.007)	
Household with child and residential construction price per square meter	0.000	***	0.000	**
	(0.000)		(0.000)	
Working	-0.036		0.029	
	(0.113)		(0.116)	
Year				
2010			4.110	
			(20.765)	
2020			-13.649	
			(39.049)	
Intercept	146.668	***	186.187	***
	(44.986)		(48.254)	
Number of observations	60		60	

R^2		
Within	0.9976	0.9982
Between	0.3267	0.2828
Overall	0.9235	0.9494

*** $p < .01$, ** $p < .05$, * $p < .1$

Source: Authors' estimate; basic data from PSA (n.d.-a) & 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

8. Conclusion

There is a significant proportion of 25 and 34 years old in extended and multifamily households in the Philippines. Majority of these individuals live with their partners or have been married, and many of them are also living with a child in the household. There is a small proportion living with an elderly person. More than half of the population have at least completed elementary, and more than 50% are working. Urban dwellers also take up more than half of the population.

The housing pattern of these age group show that wealth indicators such as education, the presence of elderly and children and housing prices are the key factors that affect their housing choices. Housing prices strongly influence the formation of extended and multifamily arrangement. We note that marriage and presence of children do not necessarily lead to new household formation but that shared housing or rent-free arrangement with consent are the likely arrangement especially with higher housing prices.

The presence of elderly and children has also a strong influence in the formation of extended and multifamily households, but such arrangement usually occur among wealthier households, which have the capacity to support extended/multifamily households. For these households, the extended arrangement is driven more by convenience rather than financial constraints.

It is likely that children are returning to their parents' house, taking in their parents to live with them, or even never leaving their root family to take care of their father or mother who have become elderly people. Although the proportion of the population living with elderly persons is small, demographic changes may soon make it larger. The findings also provide an indication of working women choosing to be in extended and multi-family household members.

Another important finding is that only less than five percent avail of government housing financing and these are mainly individuals who are living alone or live with nonrelatives. These individuals also include informal settlers, who obtained financing for single house, duplex, and multi-unit residential in lots without consent. The government financing appears to be relevant mainly for lower cost and/or low-quality housing, which may not be suitable or not desired by majority of family households.

The low attainability of housing in the Philippines is resulting in lower household formation with the rise of extended and multifamily arrangement and nonfamily housing arrangement (living alone, living with non-relatives). Government efforts to address this issue through market driven strategy should be reviewed. Housing affordability issues have to be closely examined. The surge in the prices of housing in the formal market is mainly affected by the purchasing power of

investors and high-income end-users resulting to inflationary effects. However, most Filipino households are low to middle income earners, and some are even susceptible to income shocks. The sustainability of homeownership is therefore doubtful. Moreover, government action to bring down housing prices by lowering the cost of mortgage would be insufficient especially under a condition of high property prices and strong price growth.⁷

Another important implication of the results is that estimation of housing gap should consider demographic implications of ageing and its effects on household formation and generational housing. The formation of extended and multi-family households is not necessarily a negative development. Some individuals may even prefer to be in such a household type because of potential gains which may be related to increased resources available from pooled income among relatives, improved household management, among others. Having said that, the estimation of housing need should focus more on issues of habitability and space sufficiency rather than population or household counts. The spatial effects of urbanization and migration should also be considered.

9. Annex

Annex 1. Relative risk ratios for selected variables with base outcome of being in extended and multi-family households, 2020

	MODEL 1	MODEL 2
ALONE		
Sex		
Female	(base)	
Male	1.327 *** (0.006)	3.695 *** (0.056)
Marital status		
single	0.000 (0.000)	0.000 (0.000)
not single	(base)	
Household with child		
household without child	(base)	
household with child	0.000 (0.000)	0.000 (0.000)
Household with elderly		
household without elderly	(base)	
household with elderly	0.000 (0.000)	0.000 (0.000)
Wealth	0.456 *** (0.001)	0.455 *** (0.001)

⁷ This has been observed in other countries. See Deniz Igan 2024, The Housing Affordability Crunch, F&D Bank of International Settlements <https://www.imf.org/en/Publications/fandd/issues/2024/12/the-housing-affordability-crunch-deniz-igan> (accessed Dec 13, 2024)

Working					
not working	(base)				
working		0.597 ***		0.945 *	
		(0.019)		(0.031)	
Class of worker					
worked for private household (domestic services)	(base)				
worked for private business/enterprise/farm		0.718 ***		0.701 ***	
		(0.009)		(0.008)	
worked for government/government corporation		0.757 ***		0.748 ***	
		(0.011)		(0.010)	
self-employed without any paid employee		0.722 ***		0.715 ***	
		(0.009)		(0.009)	
employer in own farm or business		0.710 ***		0.698 ***	
		(0.014)		(0.014)	
worked with pay in own family-operated farm or business		0.050 ***		0.048 ***	
		(0.006)		(0.006)	
worked without any pay in own family-oriented farm or business		0.227 ***		0.220 ***	
		(0.006)		(0.005)	
Place of work					
same province, same city/municipality	(base)				
same province, different city/municipality		0.587 ***		0.587 ***	
		(0.004)		(0.004)	
different province, different city/municipality		0.594 ***		0.593 ***	
		(0.004)		(0.004)	
foreign country		0.420 ***		0.420 ***	
		(0.006)		(0.006)	
Education					
postgraduate		2.085 ***		2.057 ***	
		(0.074)		(0.073)	
college		0.957		0.949 *	
		(0.027)		(0.027)	
high school		0.823 ***		0.820 ***	
		(0.023)		(0.023)	
elementary		0.811 ***		0.811 ***	
		(0.023)		(0.023)	
vocational		0.741 ***		0.735 ***	
		(0.022)		(0.022)	
preschool/kinder/no grade completed	(base)				
Religion					
Islam		0.742 ***		0.745 ***	

		(0.011)		(0.011)	
Iglesia ni Cristo		1.005		1.005	
		(0.012)		(0.012)	
Roman Catholic (not including Catholic Charismatic)	(base)				
others		0.977 ***		0.976 ***	
		(0.006)		(0.006)	
Ethnicity					
Bisaya		0.737 ***		0.738 ***	
		(0.004)		(0.004)	
Cebuano		0.750 ***		0.748 ***	
		(0.006)		(0.006)	
Ilocano		0.738 ***		0.737 ***	
		(0.006)		(0.006)	
Ilonggo		0.652 ***		0.650 ***	
		(0.005)		(0.005)	
Tagalog	(base)				
others		0.705 ***		0.704 ***	
		(0.004)		(0.004)	
Housing tenure					
own or amortize unit and lot	(base)				
rent unit and lot		1.530 ***		1.528 ***	
		(0.008)		(0.008)	
own or rent-free unit, rent or rent-free lot with consent		1.406 ***		1.411 ***	
		(0.007)		(0.007)	
own or rent-free unit, rentfree lot without consent		0.932 ***		0.932 ***	
		(0.013)		(0.013)	
Financing of housing unit - Government assistance, Pag-IBIG, etc.					
yes		1.231 ***		1.229 ***	
		(0.015)		(0.015)	
no	(base)				
Residential construction price per square meter		1.000 ***		1.000 ***	
		(0.000)		(0.000)	
Urban					
urban		1.353 ***		1.348 ***	
		(0.007)		(0.007)	
rural	(base)				
LGU quadrant					
high capacity, high performance		0.981 ***		0.981 ***	
		(0.005)		(0.005)	
low capacity, high performance		0.933 ***		0.937 ***	
		(0.007)		(0.007)	

low capacity, low performance	(base)				
high capacity, low performance		1.143 ***		1.145 ***	
		(0.007)		(0.007)	
Interaction: sex and working					
sex and working				0.366 ***	
				(0.006)	
Interaction: household with child and residential construction price per square meter					
household with child and residential construction price per square meter				1.000	
				(0.188)	
Intercept		11.298 ***		7.800 ***	
		(0.511)		(0.360)	
NUCLEAR					
Sex					
female	(base)				
male		0.919 ***		0.567 ***	
		(0.001)		(0.001)	
Marital status					
single		0.807 ***		0.862 ***	
		(0.001)		(0.001)	
not single	(base)				
Household with child					
household without child	(base)				
household with child		0.364 ***		0.322 ***	
		(0.001)		(0.002)	
Household with elderly					
household without elderly	(base)				
household with elderly		0.157 ***		0.156 ***	
		(0.000)		(0.000)	
Wealth		0.721 ***		0.726 ***	
		(0.001)		(0.001)	
Working					
not working	(base)				
working		0.429 ***		0.351 ***	
		(0.003)		(0.002)	
Class of worker					
worked for private household (domestic services)	(base)				
worked for private business/enterprise/farm		1.079 ***		1.002	
		(0.004)		(0.004)	
worked for government/government corporation		1.175 ***		1.116 ***	
		(0.005)		(0.005)	

self-employed without any paid employee		1.296 ***	1.225 ***
		(0.005)	(0.005)
employer in own farm or business		1.328 ***	1.236 ***
		(0.008)	(0.008)
worked with pay in own family-operated farm or business		0.542 ***	0.488 ***
		(0.006)	(0.006)
worked without any pay in own family-oriented farm or business		0.917 ***	0.860 ***
		(0.005)	(0.005)
Place of work			
same province, same city/municipality	(base)		
same province, different city/municipality		0.784 ***	0.785 ***
		(0.002)	(0.002)
different province, different city/municipality		0.920 ***	0.913 ***
		(0.002)	(0.002)
foreign country		0.879 ***	0.886 ***
		(0.003)	(0.003)
Education			
postgraduate		1.168 ***	1.159 ***
		(0.013)	(0.013)
college		0.982 **	0.968 ***
		(0.007)	(0.007)
high school		1.139 ***	1.098 ***
		(0.008)	(0.008)
elementary		1.254 ***	1.203 ***
		(0.009)	(0.009)
vocational		0.993	0.965 ***
		(0.008)	(0.007)
preschool/kinder/no grade completed	(base)		
Religion			
Islam		1.070 ***	1.070 ***
		(0.005)	(0.005)
Iglesia ni Cristo		1.086 ***	1.085 ***
		(0.004)	(0.004)
Roman Catholic (not including Catholic Charismatic)	(base)		
others		1.069 ***	1.068 ***
		(0.002)	(0.002)
Ethnicity			
Bisaya		0.864 ***	0.863 ***
		(0.002)	(0.002)
Cebuano		0.950 ***	0.954 ***
		(0.002)	(0.002)

Ilocano		0.828 ***	0.823 ***
		(0.002)	(0.002)
Ilonggo		0.819 ***	0.819 ***
		(0.002)	(0.002)
Tagalog	(base)		
others		0.825 ***	0.823 ***
		(0.001)	(0.001)
Housing tenure			
own or amortize unit and lot	(base)		
rent unit and lot		0.898 ***	0.899 ***
		(0.002)	(0.002)
own or rent-free unit, rent or rent-free lot with consent		1.172 ***	1.169 ***
		(0.002)	(0.002)
own or rent-free unit, rentfree lot without consent		0.984 ***	0.983 ***
		(0.004)	(0.004)
Financing of housing unit - Government assistance, Pag-IBIG, etc.			
yes		0.985 ***	0.988 ***
		(0.003)	(0.003)
no	(base)		
Residential construction price per square meter		1.000 ***	1.000 ***
		(0.000)	(0.000)
Urban			
urban		1.049 ***	1.052 ***
		(0.001)	(0.001)
rural	(base)		
LGU quadrant			
high capacity, high performance		1.062 ***	1.059 ***
		(0.002)	(0.002)
low capacity, high performance		1.064 ***	1.061 ***
		(0.003)	(0.003)
low capacity, low performance	(base)		
high capacity, low performance		1.036 ***	1.033 ***
		(0.002)	(0.002)
Interaction: sex and working			
sex and working			1.921 ***
			(0.006)
Interaction: household with child and residential construction price per square meter			
household with child and residential construction price per square meter			1.000 ***
			(0.000)
Intercept		18.499 ***	23.715 ***

		(0.207)		(0.286)	
EXTENDED AND MULTI-FAMILY		(base outcome)			
NONRELATED					
Sex					
female	(base)				
male		0.691 ***		1.043 **	
		(0.004)		(0.017)	
Marital status					
single		0.332 ***		0.336 ***	
		(0.002)		(0.002)	
not single	(base)				
Household with child					
household without child	(base)				
household with child		0.012 ***		0.010 ***	
		(0.000)		(0.000)	
Household with elderly					
household without elderly	(base)				
household with elderly		0.140 ***		0.140 ***	
		(0.002)		(0.002)	
Wealth					
		0.753 ***		0.753 ***	
		(0.003)		(0.003)	
Working					
not working	(base)				
working		1.046		1.199 ***	
		(0.037)		(0.044)	
Class of worker					
worked for private household (domestic services)	(base)				
worked for private business/enterprise/farm		0.427 ***		0.414 ***	
		(0.005)		(0.005)	
worked for government/government corporation		0.316 ***		0.310 ***	
		(0.005)		(0.005)	
self-employed without any paid employee		0.268 ***		0.263 ***	
		(0.004)		(0.004)	
employer in own farm or business		0.354 ***		0.346 ***	
		(0.011)		(0.010)	
worked with pay in own family-operated farm or business		0.216 ***		0.208 ***	
		(0.012)		(0.012)	
worked without any pay in own family-oriented farm or business		0.196 ***		0.192 ***	
		(0.006)		(0.006)	
Place of work					

same province, same city/municipality	(base)				
same province, different city/municipality		0.466 ***		0.466 ***	
		(0.004)		(0.004)	
different province, different city/municipality		0.456 ***		0.455 ***	
		(0.004)		(0.004)	
foreign country		0.165 ***		0.165 ***	
		(0.005)		(0.005)	
Education					
postgraduate		1.789 ***		1.818 ***	
		(0.108)		(0.110)	
college		1.083		1.098 *	
		(0.057)		(0.058)	
high school		1.512 ***		1.534 ***	
		(0.079)		(0.080)	
elementary		1.331 ***		1.354 ***	
		(0.071)		(0.072)	
vocational		1.066		1.079	
		(0.057)		(0.058)	
preschool/kinder/no grade completed	(base)				
Religion					
Islam		0.635 ***		0.637 ***	
		(0.016)		(0.016)	
Iglesia ni Cristo		0.796 ***		0.795 ***	
		(0.014)		(0.014)	
Roman Catholic (not including Catholic Charismatic)	(base)				
others		0.909 ***		0.909 ***	
		(0.008)		(0.008)	
Ethnicity					
Bisaya		0.889 ***		0.891 ***	
		(0.007)		(0.007)	
Cebuano		0.684 ***		0.683 ***	
		(0.008)		(0.008)	
Ilocano		0.983		0.983 *	
		(0.010)		(0.010)	
Ilonggo		0.772 ***		0.771 ***	
		(0.009)		(0.009)	
Tagalog	(base)				
others		0.837 ***		0.837 ***	
		(0.006)		(0.006)	
Housing tenure					
own or amortize unit and lot	(base)				
rent unit and lot		3.837 ***		3.833 ***	
		(0.028)		(0.028)	

own or rent-free unit, rent or rent-free lot with consent	2.358 *** (0.019)	2.363 *** (0.019)
own or rent-free unit, rentfree lot without consent	1.224 *** (0.027)	1.223 *** (0.027)
Financing of housing unit - Government assistance, Pag-IBIG, etc.		
yes	1.299 *** (0.024)	1.297 *** (0.024)
no (base)		
Residential construction price per square meter	1.000 *** (0.000)	1.000 *** (0.000)
Urban		
urban	1.487 *** (0.013)	1.483 *** (0.012)
rural (base)		
LGU quadrant		
high capacity, high performance	0.765 *** (0.005)	0.765 *** (0.005)
low capacity, high performance	0.737 *** (0.008)	0.738 *** (0.008)
low capacity, low performance (base)		
high capacity, low performance	0.837 *** (0.007)	0.837 *** (0.007)
Interaction: sex and working		
sex and working		0.685 *** (0.012)
Interaction: household with child and residential construction price per square meter		
household with child and residential construction price per square meter		1.000 *** (0.000)
Intercept	0.630 *** (0.042)	0.583 *** (0.039)
Number of observations	15,069,670	15,069,670
χ^2	4,568,930.65	4,626,920.08
Prob > χ^2	0.0000	0.0000
Pseudo R ²	0.1820	0.1843
Log likelihood	-10,268,360.35	-10,239,365.63

*** p<.01, ** p<.05, * p<.1

Source: Authors' estimate; basic data from PSA (n.d.-a) & LGA (2022)

Notes: Models were run on the population of 25- to 34-year-olds; Not including BARM; Some estimates including those in relation to unspecified category are not shown in the table

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