



# Parental support and living arrangements among young adults in Taiwan

William D. Li<sup>1</sup> · Chia-Yu Hung<sup>2</sup>

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## Abstract

The delay of home leaving and increasing parental support for young adults are issues of increasing concern. However, little is known about the family support for young adults' housing in non-Western societies. By using age cohort data, this paper examines housing arrangements among young adults in Taiwan as a case study to elucidate how parental resources are related. Unlike the leaving home phenomenon discovered in Western societies, young adults are more likely to stay in their parental homes in Taiwan. Age and gender are less related to home leaving, and young adults' economic capability is positively related to leaving the family nest. Parental resources, however, are negatively related to home leaving. Furthermore, the multinational analysis indicates that among the various forms of living, parental resources are prevalent in supporting young adults in gaining access to better housing consequences.

**Keywords** Living arrangements · Housing · Young adults · Parental support · Taiwan

## 1 Introduction

Nest-leaving among youth in the transition to adulthood has recently attracted much attention due to the increasing delay in the timing of leaving home (e.g. Stone et al. 2011), growing rates of intergenerational co-residence among young adults (Burn and Szoeké 2016; Maroto 2017) and growing parental housing support (Mackie 2016; Mulder and Smits 2013). These developments in young adult's living arrangements have motivated a 'modified' view on the life course of young adults (Lennartz and Helbrecht 2018) and parental resources are considered increasingly related to young adults' living arrangements (Patacchini and Arduini 2016). Extant literature of the life course assumption on young

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✉ Chia-Yu Hung  
hungcy@gms.ndhu.edu.tw  
William D. Li  
derhe@gms.ndhu.edu.tw

<sup>1</sup> Department of Sociology, National Dong Hwa University, No. 1, Sec. 2, Da Hsueh Rd. Shoufeng, Hualien 97401, Taiwan

<sup>2</sup> Department of Economics, National Dong Hwa University, No. 1, Sec. 2, Da Hsueh Rd. Shoufeng, Hualien 97401, Taiwan

adult's nest-leaving patterns has demonstrated that various factors among youth, such as culture and social and economic status, are related to young adults' housing arrangements. However, less attention has been paid to parental resources in supporting young adults' living arrangements, especially among non-Western societies. The purpose of this paper is to extend the understanding of young adult's housing arrangements by utilizing the case of Taiwan to determine how parental support has served as a critical resource to young adults' living arrangements.

Taiwan has been among the few fast growth economies in South East Asia since the 1960s. Consequently, the life course in transition to adulthood has been transformed along with the fast pace of industrialization and urbanization. On the one hand, unlike young adults leaving homes in the West, staying in parental homes has been the culturally preferred living arrangement. Especially among the East Asian societies, the younger generation has been the main source for elderly support (Kim et al. 2015). Nevertheless, the cultural value of intergenerational co-residence has been gradually erased as a consequence of industrialization. This has enabled young adults to be free from the traditional rules of intergenerational co-residence (e.g. Cohen 1976).

Thornton et al.'s (1984) foundational study reported that intergenerational co-residence was in a state of decline. This strong trend was ascribed to the younger generation gaining their economic independence through employment in the non-agricultural sector, along with the modernization of the overall economic structure since the early 1960s. Marsh (1996) also found empirical evidence that supports the modernization theory, in which the nuclear family system, especially in cities, has become more ubiquitous in the process of rapid urbanization. Indeed, it is clear that co-residence with parents has been in decline, and independent living after entering adulthood seems to be inevitable under the force of industrialization. Leaving homes and seeking jobs in cities seem to be the logical and obvious choice due to employment migration (Gallin 1966). Nevertheless, recent findings of increasing intergenerational co-residence and the delay of home-leaving have shown a rather different development in this highly industrialized society (Li and Huang 2017; Nauck et al. 2017). A similar development also exists among some developing countries (Ruggles and Heggeness 2008). This clearly indicates the living arrangements among young adults in Taiwan require further assessment. Previous research on housing has been mainly focused on the intergenerational co-residence in supporting the elderly (e.g. Ma and Wen 2016), and less attention has been paid to young adults' living arrangements. The abovementioned sometimes contradictory findings make young adults' housing an ideal case for investigation. First, the life-course perspective on young adults' nest-leaving is reviewed briefly. This is supplemented by the evidence of the global development of parental support on the housing of young adults. Various factors, most importantly parental factors, are put into the analysis on young adults' housing. Furthermore, types of housing support, e.g. co-residing and giving children another house in which to live 'independently', are specified to argue that parental housing resources are critical in shaping the various housing types among young adults.

## 2 Nest-leaving and parental support

According to the life-course perspective, leaving the parental home for the young adult seeking independence seems to be an inevitable and integral part of the ongoing formative process of the nuclear family among Western societies. Leaving-home patterns have

been clearly documented in the past few decades (e.g. Goldscheider and Goldscheider 1999). Both individual factors such as age and gender, in addition to the wider social and economic context such as cultural norms and regional labour market conditions (e.g. high unemployment rate), have been found to be related (Matsudaira 2016). For instance, age norms and the social expected timing of home leaving have been well documented as one stage within the ongoing individual life course in the transition to adulthood (Tosi 2017). Furthermore, in terms of gender, the female leaves earlier than the man (van den Berg et al. 2018). Young adults' resources, such as educational attainment and income, have also been found to be important for children's nest-leaving (Aassve et al. 2002; Zorlu and Van Gaalen 2016), and so add to their delay in leaving home (Berrington et al. 2014). The underlying presumption of the life course perspective is that nest-leaving is predictable, in that young adults are expected to leave their parents' nest and achieve autonomy (e.g. Billari and Liefbroer 2007).

Nevertheless, along with the growing diversity of young adults' housing arrangements (Lewis and West 2017), the life course perspective reveals its limitations in interpreting this new development. Following the life-course perspective, young adults' difficulty in living autonomously can be regarded as a major result of the employment market and the wider economic environment (e.g. Newman 2008). This leads us to focus on young adults' ability or inability as the prime factor in deciding their housing arrangement. For those co-residing with parents, young adults' leaving-home pattern is considered to be blocked, limited or shaped by the broader economic and housing context. For example, it has been revealed that young adults living with parents are frequently considered to be 'parasites' in Japan (Masahiro 2001). For those family nest leavers who return home, they have been considered as experiencing the 'non-linear' housing career (Beer and Faulkner 2011), the 'boomerang generation' or 'failure to launch' (South and Lei 2015). Thus, factors relating to young adults' economic independence and wider social economic constraints, such as high unemployment or under-employment, are regarded as the causes behind young adults remaining dependent on parental support (Matsudaira 2016).

Furthermore, the focus on young adults' characteristics alone in considering their living arrangements has ignored how intergenerational relations have been influential in their life course. Swartz (2009) demonstrated that intergenerational relations play a critical role for young adults in receiving parental support in the transition to adulthood. As a result, young adults' living arrangements have become non-straightforward compared with the situation in the past few decades (Swartz et al. 2011).

Parental support for young adults' housing arrangements has been a widespread recent phenomenon. Among those societies encouraging young adult leaving the family nests, their independent living has not been solely dependent on their own ability. Family resources become critical to their housing access. The evidence of 'intergenerational transmission of homeownership' (Helderma and Mulder 2007; Mulder et al. 2015) has been widely supported in various social contexts (Lennartz and Helbrecht 2018; Öst 2012; Gruber and Szoltysek 2012). In examining the younger generation's access to housing in the Netherlands, Hochstenbach and Boterman (2017) suggested that parental wealth has been critical in determining the housing opportunities of young adults. In the UK, Coulter (2016) also discussed the tendency of intergenerational continuity in housing tenure as the offspring of the social renters are less likely to become home occupiers. More evidence reveals that their family resources matter especially in becoming homeowners (Druta and Ronald 2016; Heath and Calvert 2013).

Among those societies in which intergenerational co-residence has been much common, the living arrangements of young adults is even more family related. Except for the fact

that the timing of leaving home has been prolonged (Billari and Liefbroer 2010), parental resources have been found to be negatively related to young adults' home leaving in Southern Europe (Chiuri and Del Boca 2010; Iacovou 2010). Among East Asian societies, family resources have been important for young adults' housing. Except for the similar development of integrational housing transmission that has been found (e.g. Di 2016; Ma and Kang 2015), intergenerational co-residence has been the major family support for young adults (Hu and Chou 2016; Wong 2017). Growing parents' support for young adults' housing in Taiwan also has been witnessed recently. Li (2012) indicated that those from the younger generation are more likely to live with parents than the older generation. A recent study on married couples' living arrangements reveals that co-residing with parents benefits married couples (Li and Huang 2017). Due to the fact that the pre-marry stage of young adults in Taiwanese society has largely been considered as a transitional stage in their early adulthood, very few studies have examined the diversity of living arrangements among young single adults in detail. Along with the delay of getting married among the young population, it is necessary to fill the missing gap in our understanding of living arrangement among young adults.

To conclude, the living arrangements of young adults have become more complicated than before. In addition, the housing arrangements no longer depend solely on the young adults alone. Family resources have been increasingly involved in the housing experience (Ronald and Lennartz 2018). How is parental support critical to young adults' housing access in the case of Taiwan? This paper contributes to the ongoing debate by analysing parental support in relation to various types of young adult housing in Taiwan.

### 3 Methodology

#### 3.1 Data and research design

The data for the analysis are obtained from the Panel Study of Family Dynamics (PSFD), conducted by Academia Sinica in Taiwan. The PSFD project was initiated in the year of 1999 in order to understand the changing structures and patterns of the family in Taiwan. Four different birth cohorts, ranging from those born in 1935–1954, 1953–1964, 1964–1976 and 1977–1983 are randomly sampled and surveyed. The contents of the questionnaire include the respondent's social demographic traits such as education experience, employment information, marital status, housing and living history, etc. More importantly, respondents' parental information such as education, economic and household information are also included, which is an ideal source for intergenerational research.

The data used for the analysis were mainly collected in 2009 with respondents born between 1977 and 1983 who were aged between 26 and 32 years in 2009. In addition, there were samples collected in different age cohorts previously—their children's information has already been collected separately in 2004, 2005, 2007, 2011 and 2014 by the PSFD. Those children aged over 22 are thus added into the analysis (see Table 1). For the survey of the 2009 data, there were 2092 samples in total. Due to the fact that housing arrangements between married couples and singles are triggered by various factors, this paper focuses on unmarried adults' living arrangements. Thus, excluding married cases in the dataset, 1443 singles were chosen. By adding other singles' samples from previous survey waves, there are a total of 2429 cases for analysis. As a majority of young adults in Taiwan return home after finishing their university degrees at the age of 22, the target

**Table 1** Research variables and data description

Variables	Coding categories	Frequency (%)
Year survey	2004	265 (10.91)
	2005	151 (6.22)
	2007	293 (12.06)
	2009	1664 (68.51)
	2011	47 (1.93)
	2014	9 (0.37)
Living arrangements	Living with parents	1653 (68.05)
	Not living with parents	776 (31.95)
Housing tenure	Own	66 (2.72)
	Rented	613 (25.11)
	Owned by parents	97 (3.99)
	Living with parents (tenure unclassified)	1656 (68.18)
Age	Continuum variable	Mean: 28.37
	25	124 (5.10)
	26	384 (15.81)
	27	398 (16.39)
	28	392 (16.14)
	29	375 (15.44)
	30	332 (13.67)
	31	281 (11.57)
	32	142 (5.85)
	33	1 (0.04)
	Gender	Female
Male		1416 (58.30)
Education	Years of schooling, continuum variable	Mean: 15
	Illiterate = 0	5 (0.21)
	Primary school = 6	2 (0.08)
	Junior high = 9	84 (3.46)
	Senior high = 12	576 (23.71)
	Technical college = 14	66 (2.72)
	Bachelor's degree = 16	1376 (56.65)
	Master's degree = 18	295 (12.14)
Doctoral degree = 21	25 (1.03)	
Employment status	Unskilled and primary sector workers	97 (3.99)
	Sales, skilled workers	595 (24.50)
	Clerical workers	336 (13.83)
	Assistant professionals	544 (22.40)
	Professionals	273 (11.24)
	Non-employees	584 (24.04)
Father's employment status	Unskilled, primary workers and unemployed (retiree included)	628 (25.85)
	Service and skilled workers	1060 (43.64)
	Assistant professionals/sales/clerk	449 (18.48)
	Professionals	292 (12.02)

**Table 1** (continued)

Variables	Coding categories	Frequency (%)
Parent's survival	Both alive	2128 (87.61)
	One or both deceased	301 (12.39)
No. of siblings	Continuum variable	Mean: 1.99
	0	54 (2.22)
	1	716 (29.48)
	2	1060 (43.64)
	3	444 (18.28)
	4	104 (4.28)
	5 and more	51 (2.10)
Location of parent's home (origin)	Taipei City	469 (19.31)
	Taipei County	381 (15.69)
	Other major cities	352 (14.49)
	Rural areas	1227 (50.51)
Total		2429

sample selected for this research is the age group ranging from 25 to the mid-thirties. Since the age period chosen is approximately the time that young adults experience their major life transition to being economically autonomous, it is an ideal sample for the analysis of unmarried adult children's housing arrangements.

Young adults who are not living with their parents will be categorized as nest leavers. Among the total number of 2429 samples, 31.95% have moved out and 68.05% are still living with their parents. This indicates that Taiwanese young adults are more likely to remain with their parents in early adulthood. Please refer to Table 1 for all the descriptive statistics of the variables in the analysis. Types of various living arrangements are also listed in Table 1 under the title of housing tenure. Other than those living with their parents, three housing alternatives are specified among nest leavers, which includes the individuals who own the house themselves, rent a house or stay in houses owned by their parents. Among 2429 samples, 25.24, 2.72 and 3.99% are, respectively, tenants, house owners and staying in houses owned by their parents. Focusing only on the nest-leavers, 78.99% out of 776 samples live in the privately-rented sector and 8.51% own their own houses. More importantly, 12.50% are not living with their parents, but staying in houses owned by their parents.

Homeownership has been a dominating housing tenure in Taiwan (Bourassa and Peng 2011). Nevertheless, homeownership is quite unevenly distributed under this highly market-based housing system (Li 2002). Homeowners frequently own more than one housing unit. A recent survey (Yang 2016) indicates that the total housing stock comprises a total of 8 million housing units in 2014, with only 60% owned by single-home owners, which means that the remaining 40% of housing stock is owned by multi-house individuals. In terms of homeownership by age group, among those aged 31 to 40, 23% were home owners and only 7% were homeowners among those aged 21 to 30.

In order to determine how the various factors are related to differences between those living with parents and those separate from them, a binary logistics regression or a logit model is adopted to examine how the various factors are related to the choices between these two groups. In the second step, those nest leavers are further divided into three

groups based on the various types of the residence. A multinomial logit regression is employed to identify how parental resources along with other factors are affecting their housing arrangements.

### 3.2 Variables and descriptive statistics

For the empirical analysis, the relevant explanatory variables are divided into three groups as the following. First, previous studies show that young adults' housing arrangements are closely related to young singles' social economic characteristics, such as age, gender and employment status (Aassve et al. 2002; Clark and Mulder 2000). The first type of variables in our regression thus includes the respondent's demographic traits, educational achievement, work status and job information. In the sample, 58% are males and 42% are females. The age ranges from 25 to 33, with an average age of 28.37. Educational achievement is measured by years of schooling. The respective years of schooling are assigned for the corresponding levels of education as indicated in the table. The average number of years of schooling is 15 years, with almost 70% receiving bachelor's degrees, master's degrees or above. Young adults' professions are grouped into six types: (1) professionals (including managers); (2) assistant professionals (including technicians); (3) clerical workers; (4) sales or skilled workers; (5) unskilled workers and workers in the primary sectors; and (6) those non-employed, which are samples declaring none of the preceding professions, who are currently not in the labour market and may include those enrolled in school. The six employment status types imply some sort of social stratification ranking from the highest to the lowest, while the non-employed for the young, including those enrolled in school, remains to be determined.

Second, the social economic characteristics of young adults' parents are given, such as the employment status of the respondents' father and parents' household structure, such as single-parent household and the number of siblings. Previous studies have demonstrated that parental resources are closely correlated with co-residing with their grown-up children (de Valk and Billari 2007; Fingerma et al. 2015). Thus, these parents' variables are included for analysis. In order to avoid the collinearity problem between both parents' education, only the father's information is included in the regression analysis. The fathers' professions are grouped into four employment status types as above, with a similar ranking hierarchy implied. Specifically, the unemployed, retirees, and unskilled and primary workers are grouped into a single category. A major difference in family resources could be related to parents' household structure (e.g. van den Berg et al. 2018), and single-parent households are specified and included in the analysis. A total of 12.39% respondents come from either one-parent families or families in which both parents are deceased. Room stress caused by grown-up children is also indicated by previous research (Flatau et al. 2007). Information about siblings is included due to its completion of family resources (Heath 2018). The average number of siblings in the samples is approximately two.

The third type of variable is parental housing location. Previous studies indicate that housing adult children is one major form of parental support (Helderman and Mulder 2007) and the living quality positively affects intergenerational co-residence (Albertini et al. 2018). Thus, parental residence is a major housing resource embedded in its geographical location which is employment market related. The living cost will increase if moving out from parents' homes, especially for those living in the highly urbanized areas. In addition, the domicile service available by living with parents is a negative factor towards home leaving. The parental housing location is categorized into four groups

according to the degree of urbanization: (1) Taipei City; (2) Taipei County; (3) other cities and (4) rural areas, where Taipei City and Taipei County are the two largest cities or metropolitan areas in Taiwan in which housing costs more for home-leavers.

## 4 Empirical results

To understand the factors related to the different young adults' living arrangements, a binary logistic regression model is first applied to analyse the above mentioned variables in relation to staying with parents and those leaving the family nests (Table 2). This is followed by a multinomial logistic regression to examine the factors related to their different housing arrangements (Table 3).

**Table 2** Factors that affect nest leaving or not: logistic regression model (move out=1, living with parent=0)

Variables	Model 1		Model 2		Model 3	
	Coef.	OR	Coef.	OR	Coef.	OR
Age	-0.0156	0.9845	-0.0288	0.9715	-0.0149	0.98,512
Gender (ref: female)	0.1465	1.1577	0.1997	1.2210**	0.1967	1.2174**
Education	0.1121	1.1186***	0.1275	1.1360***	0.1368	1.1466***
<i>Employment (ref: unskilled)</i>						
Sales, skilled workers	0.7569	2.1318**	0.8165	2.2626***	0.7850	2.1926***
Clerical workers	0.3753	1.4555	0.4616	1.5866	0.4985	1.6463
Assistant professionals	0.6917	1.9972**	0.7667	2.1526**	0.7991	2.2236***
Professional	0.9799	2.6644***	1.0398	2.8287***	1.0993	3.0022***
Non-employees	0.8220	2.2751***	0.8723	2.3925***	0.8799	2.4108***
<i>Father's employment (ref: unskilled)</i>						
Service/skilled worker			-0.2955	0.7441***	-0.2342	.7911**
Asst. prof./sales/clerk			-0.0987	0.9059	0.02719	1.0275
Professional			-0.2152	0.8062	-0.0731	.9294
<i>Parents (ref: both alive)</i>						
One/deceased			0.2960	1.3445**	0.6915	1.9968***
No. of siblings			0.1639	1.1781***	0.1344	1.1438***
<i>Origin (ref: rural area)</i>						
Taipei City					-0.8676	0.4199***
Taipei County					-0.9711	0.3786***
Other cities					-0.3397	0.7119**
Constant	-1.9877		-2.0842		-3.2169	
Log likelihood	-1487.3053		-1474.2157		-1438.929	
Pseudo R-square	0.0226		0.0312		0.0544	

Coef. coefficient, OR odds ratio, ref. reference group

\* $P < 0.1$ , \*\* $P < 0.05$ , \*\*\* $P < 0.01$



**Table 3** Factors that affect living arrangement among nest-leavers: multinomial logistic regression (base category: renting)

Variables	Living with parents		Own		In parent's property	
	Coef.	OR	Coef.	OR	Coef.	OR
Age	0.0474	1.0485*	0.2467	1.2798***	0.0718	1.0744
Gender (ref: female)	-0.1683	0.8450	-0.5290	0.5891*	0.5716	1.7712**
Education	-0.1553	0.8561***	-0.1184	0.8883*	-0.0641	0.9378
<i>Employment (ref: unskilled)</i>						
Sales, skilled workers	-0.8913	0.4101***	-0.4808	0.6187	-0.2803	0.7555
Clerical workers	-0.6634	0.5150**	-0.3060	0.7363	-0.9986	0.3683
Assistant professionals	-0.8771	0.4159***	-0.2234	0.7997	-0.2487	0.7797
Professionals	-1.2778	0.2786***	-0.7860	0.4556	-0.6289	0.5331
Non-employees	-1.099	0.3331***	-1.319	0.2673	-0.7337	0.4800
<i>Father's employment (ref: unskilled)</i>						
Service/skilled worker	0.3303	1.3914***	0.5289	1.6971	0.4337	1.5430
Asst. prof./sales/clerk	0.0354	1.0360	-0.0183	0.9817	0.4880	1.6291
Professional	0.3151	1.3704*	1.3572	3.8856***	0.8177	2.2654*
<i>Parents (ref: both alive)</i>						
One/deceased	-0.7503	0.4722***	0.2357	1.2659	-0.7643	0.4656*
No. of siblings	-0.1259	0.88164**	-0.0803	0.9228	0.1180	1.1253
<i>Origin (ref: rural area)</i>						
Taipei City	0.8761	2.4015***	-0.0863	0.9173	0.1235	1.1315
Taipei County	1.1084	3.0296***	0.0360	1.0367	0.8244	2.2806**
Other cities	0.3479	1.4161**	-0.1980	0.8203	0.1741	1.1902
Constant	2.8547		-6.8941		-3.4343	
Log likelihood			-1916.971			
Pseudo R-square			0.0585			

Coef. coefficient, OR odds ratio, ref. reference group

\* $P < 0.1$ , \*\* $P < 0.05$ , \*\*\* $P < 0.01$

#### 4.1 Nest leaving or not: logistic regression model

Since the outcome modelled is whether the young adults have moved out or not, and the binary response takes one of only two possible values representing 'yes' and 'no', the adoption of logistic regression is appropriate. The empirical results are presented in Table 2. Three logistic regression models are adopted, taking living-with-parents as the base category. Two columns, including coefficient and odds ratio (OR), are reported for each model. A positive value of coefficient indicates which group of young single adults has a higher likelihood of being nest leavers. With certain transformation, the corresponding value of odds ratio estimates the relative probability of moving out of a certain group compared with the reference group. A positive value of coefficient is associated with an odds ratio greater than one, and both describes a positive relationship between the explanatory variable and response variable, and vice versa.

First, Model 1, in which only young adults' individual variables are included, shows that age and gender are not related to nest-leaving. Young adults' employment related factors, however, reveal that certain factors, such as years of education and economic status, are

related to leaving home. Those with more years of education are found to be more likely to leave parental homes. The odds ratio of 1.11 indicates that the probability of leaving home is increased by 1.11 times with one more year of schooling. In addition, young adults' economic status matters in terms of home-leaving. Compared to the reference group, i.e. unskilled workers, those with a higher status in the labour market are shown to be more likely to leave the parental home.

In the next model, factors of parents' information are further included. Similar to the first model, the age of young adults is not related to home-leaving. However, a gender difference exists in home-leaving. Males are more likely to leave than females, with an increase in probability of a factor of 1.22. Moreover, those with more years of education are more likely to leave home compared to those with fewer years of education. Similar to the first model, the employment position of young adults is also related to nest-leaving. Except for clerical workers, those with higher employment status and those who are non-employed are more than twice as likely to be nest-leavers compared to unskilled workers. In particular, those young adults with professional occupations have a 2.8 times higher probability of living independently than unskilled workers.

In terms of parents' characteristics, parents' factors and parents' household characteristics affect home-leaving patterns. First, unskilled workers, primary workers and the unemployed are grouped, with retirees as the reference group. The results show that young adults whose fathers are in the service industry or are skilled workers are less likely to leave compared to those with unskilled fathers. However, the probabilities of living independently for young adults with parents as assistant professionals/sales/clerk or professionals are about the same as the reference groups. Concerning parents' information, those coming from lone parent households are more likely to be home-leavers compared to those from households in which both parents remain. In addition, those with more siblings are more likely to leave parental homes. Overall, the parents' information indicates that those with better family resources are less likely to be home-leavers.

In the last model in which parents' home location is included, the results reveal that the parents' housing location matters. For parents whose homes are in urban areas, such as Taipei City and Taipei County, their children are less likely to leave compared to those in the rural areas. It is a well-known trend that young adults will seek employment opportunities in urban areas, which may be likely to induce them to leave their parental nests in rural areas. However, for those used to living in urban areas, there is less incentive for them to leave the nest. The empirical evidence regarding leaving home shown above suggests that home-leaving is related to young adults' resources as well as parents' resources, especially parental housing resources.

The empirical evidence regarding young adults leaving home shown above suggests that, similar to some research results, personal characteristics are certainly related to living independently. However, parents' resources—more importantly, the location of the parental home—shows a negative relationship to young adults leaving the family nests. Recent research has also revealed that parental resources and the benefits of living with parents will delay the young adults' home leaving process (Easthope et al. 2017).

#### **4.2 Living arrangement among nest-leavers: multinomial logistic regression**

The above analysis needs to go further in exploring factors affecting different housing routes among those nest leavers, as it has been shown that home leavers have three alternative housing arrangements: renting, purchasing houses and living in parents' property

independently. Their specific housing choices are particularly influenced by their individuals' characteristics and parental resources. To further investigate factors affecting these different arrangements, the previous analysis of Table 2 is expanded and a multinomial logistic regression adopted as the second part of empirical study. In addition to the three types of non-living with parents that are analysed, Table 3 also includes those living with parents. The reference group for comparison is those living in the private rented sector.

Table 3 presents the results of a multinomial logistic regression. There are four various housing arrangements among the samples. Renting is taken as the base category in comparison with the other three types of living arrangements, respectively. Values of coefficient and odds ratio are obtained and listed for each type of living arrangement. The first, second and last set of two columns report the values of coefficient and odds ratio of home owning, living in parents' properties and living with parents, compared with the renting. The interpretation of the sign of coefficient and the size of the odds ratio is the same as explained in the previous logistic regression model.

Age is a significant factor in predicting young adults' housing arrangements. This indicates that the likelihood of living with parents and house owning are both strongly related to age compared to those renting. This further indicates that divergent housing routes among young adults exist in Taiwan. One is staying with parents; the other is entering into the housing market via renting. Ultimately the young adults' aim is to move upwardly into homeownership when they have enough wealth along with their age. Furthermore, gender also matters. Males are more likely to stay in their parents' properties than females. Specifically, the odds ratio of 1.77 indicates that the probability of staying is 1.77 times larger than that of females, relative to the choice of renting. In addition, females are more inclined to live in their own houses, with the probability of 1.70 times, the inverse of the odds ratios (1/0.58), larger than males.

Education has been closely related to moving into the rented sector as it has been demonstrated that those with higher degrees of education are more likely to be in the private rented sector. This certainly complies with previous studies that indicate they are better prepared to live independently. This gains further support when young adults' employment status is examined. Taking unskilled workers as the reference group, all those of the higher employment status are less likely to live with their parents relative to those living in the privately-rented sector. In other words, those with a higher employment status are more likely to live independently in the rental sector. Nevertheless, there is no evidence that they are more likely to be homeowners as it may take them some time to have enough resources to become homeowners. Furthermore, the act of becoming a homeowner will be more likely to be postponed until they are about to get married.

As Table 3 illustrates, parental support is shown to be important to young adults' living arrangements. First, the father's employment status is, although partially, statistically significant across these three different housing arrangements. Second, the younger generation will be more likely to stay at home compared with renting if their fathers have a higher employment status, e.g. professionals. Between those renting and those owning, the findings show that for fathers who are in the professional category, their children are 3.88 times more likely to own than to rent compared to those with fathers who are unskilled workers. In addition, the fathers' employment status is more related to their house purchase than their own employment as there is less difference triggered by their own employment status. The situation is similar between those renting and those living in their parent's property.

Parental resources in supporting young adults' housing can be further revealed in terms of parental household resources. Young adults from lone parent households are much more likely to rent than to live with parents compared to their counterparts. As the lone parent

will have fewer resources, the chance of living in the parent's property is also lower (van den Berg et al. 2018). In addition, the number of siblings is also related. The probability of leaving parental homes for renting does increase along with the increase in the number of siblings. This complies with the previous findings that parental support depends on the competition between siblings (Flatau et al. 2007; Heath 2018).

More importantly, Table 3 illustrates that the choice of living arrangement is related to parental residential location especially between those living with parents and the renters. Young adults whose parent's residence in urban areas are more likely to remain at home compared to those from rural areas. This is also consistent with previous studies that indicate that less benefit will be gained from moving out for those who have been living in the urban area. However, for those seeking jobs from the rural areas, they will start their housing career with less parental support. Thus, divided housing routes appear among young adults. Young adults from cities are much more likely to stay with parents. On the other hand, those from rural areas are more likely to be renters.

Compared to Table 2, Table 3 provides a clearer picture. First, age and gender matter in young adults' living arrangements. Contrary to the case in Western societies, this shows there is no such norm of leaving parental homes in Taiwan as age is positively related to co-residence. This intergenerational co-residence may remain and last after the younger generation gets married (Li and Huang 2017). Furthermore, there is no clear gender difference in the family leaving process that has been found in the Western societies. However, there is a difference in receiving parental support by gender. As Table 3 indicates, the male offspring is more likely to receive family property to live in. Under the patrilineal society, the female offspring will get married and leave the family. Most family property will, more likely, be reserved to the male offspring.

Second, parental support is found to be prevalent across different types of young adults' living arrangements. Table 3 shows that parental household resources are negatively related to leaving the family nests in comparison with those living in the private rented sector. This means that living with parents is a better choice, especially for those living in the urban areas. Entering into the housing market with a better employment status does not guarantee a better chance of moving into homeownership. However, it may be too early for these young adults to be homeowners in their early 30s, especially when they are at the beginning of their career. Nevertheless, for those moving upward into homeownership, besides taking time, parental resources have been critical, not to mention those living in their parental property. This conforms to previous research findings of growing parental support for housing (e.g. Coulter 2016). Finally, Table 3 clearly indicates that the younger generation may receive parental housing wealth via co-residence and by taking a house as a gift from parents. This indicates that the direct 'intergenerational transmission of homeownership' has been taking place. The same trend has also recently been noticed elsewhere as the family assets have been decisive in shaping young adults' housing careers (Köppe 2018; Ronald and Lennartz 2018).

## 5 Conclusion

This paper uses young adults' living arrangements in Taiwan as a case study to contribute to the current debates on the topic. Echoing recent evidence of increasing parental support, various forms of living arrangements among young adults in Taiwan have revealed how parental resources contribute to young singles' living arrangements. First, as found

elsewhere, the emergence of various living types among young adults clearly indicates a development of divisive life-course patterns. The case of Taiwan reveals that there is no social expected norm of young adult home leaving. Parental resources on housing have been negatively related to home leaving. Second, empirical evidence demonstrates that living with parents prior to marriage seems to be the main type of living arrangement among the younger generation in Taiwan. Even though Taiwan has been experiencing high urbanization and industrialization, living with parents remains popular among adults. Intergenerational co-residence is more likely to be found among adults from the urbanized areas. This may signal a new form of multigenerational family system in the modern cities. Third, the evidence reveals divertive housing routes among young adults in housing access in which age, gender and parental resources are all related. Compared to those with family housing assets in cities, young adults will enter the rental sector when they move for jobs in the cities. This indicates there are different housing routes and housing choices among them. However, the study demonstrates that parental support is prevalent in the various housing arrangements.

The increasing intergenerational support in housing for young people also indicates that additional studies are necessary to understand how differences may be created in the life chances and opportunities among those with or without family assets. Further analysis is also required not only to understand how decisions regarding living arrangements are negotiated, but also to clarify precisely how family relations, household decision-making and the domestic division of labour are performed among the various types of intergenerational living arrangements.

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