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Housing tenure in Latin American cities: The role of household income

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1. Introduction

In most developed countries, particularly those in the English speaking world, there is a positive relationship between household income and housing tenure. Better off households tend to own whereas poorer households tend to rent or share (Clark & Dieleman, 1996; Groves et al., 2007). Such a pattern is due to relatively high average household incomes, the availability of mortgage credit and government encouragement for households to buy a home. Only Germany and Switzerland constitute major exceptions to this rule; in German and Swiss cities the majority of households rent (Bourassa & Hoesli, 2009; Voigtlander, 2009; Werczberger, 1997). In the United Kingdom, some poorer households have been permitted to buy social housing but the majority of low-income families still rent. In countries like Austria, Denmark and the Netherlands a large stock of social housing means that many poor families rent their homes.

By contrast, the linear relationship between ownership and household income is much less marked in most countries in the South. In much of Africa and Asia most families still live in the countryside, where some form of private or communal ownership is the common pattern, and renting is unusual (UNCHs, 2003). And, throughout the urban Global South many poor families live in ‘self-help’ accommodation.1 Studying tenure patterns in Latin American and Caribbean (LAC) countries is interesting insofar as these nations cover a wide per capita income range; incomes in Bolivia and Honduras are similar to those in many parts of Africa while Argentina, Chile and Uruguay are as affluent as most countries in the southern half of Europe.

Recently a large data set has been collected for LAC countries, which permits detailed study of household tenure (see below). This data set constitutes the empirical basis of this paper in which the following research questions are addressed:

What are the main patterns of urban housing tenure in LAC countries and how and why do they differ?

What is the role of household income in determining urban housing tenure?

To what extent does the presence of informal housing upset the positive linear relationship between income and tenure that is typically found in developed countries?

The paper is organised as follows. The first section offers a brief review of the existing literature on the role of household income and tenure. The methodology employed in the study is explained in the second section and the results are presented in the third section.

2. Literature review

Many researchers have analysed the tenure of households in developed countries as a simple choice between owning or renting (Dietz & Haurin, 2003; Haurin, Dietz & Weinberg, 2003; Raya & García, 2012). They have found that household income is the critical element in determining tenure (Carter, 2011). As Peppercorn and Taffin (2013: 12) state: “The rental sector is a natural outlet for households that do not have sufficient income to afford a home, do not have income that is formal enough to qualify for a mortgage, have not saved enough to meet down-payment requirements for ownership, or...
simply do not want to own a home." In England, “owner occupier households had an average gross annual income of £40,900 compared with £29,000 for private renters and £17,400 for social renters” and the difference was still greater between those currently buying their home and those renting (DCLG, 2012: 18).

Of course, factors like age, family size, education and location of the home clearly affect tenure. Several studies have shown that the probability of owning a home varies with the household life cycle (Carter, 2011; Clark & Dieleman, 1996; Dieleman et al., 1995; Doling, 1976; Kain & Quigley, 1972; McCarthy, 1976; Raya & García, 2012). Age is critical; in the United States 81% of householders over 64 years of age owned their home compared with only 37% of those younger than 35 (Danter, 2014). Irrespective of income, single people and couples without children are more likely to rent than families with children (Carliner, 1974). In the US, 82% of married couples own compared to just over half of single people. The typical trajectory therefore is that as people establish families, they move into ownership from the relative insecurity of renting. Of course income is still critical insofar as only those with a high enough income to qualify for a mortgage can afford to buy. However much householders wish to own, the affordability of housing is critical (Artle & Varaiya, 1978; Brueckner, 1986). In many developed countries, the decision to buy has been strongly influenced by government policy. Most governments have offered incentives to households wishing to buy including interest rate deductions on mortgage payments, interest rate subsidies and a failure to tax either capital gains on property or the imputed rent gained by home owners (Green, 2001; Krueckebberg, 2004; McCarthy, Van Zandt & Rohe, 2001).

Of course, affordability varies according to the cost of housing relative to income (Fretes et al., 2014). This is a primary reason why rates of ownership in large cities, where housing is generally more expensive, tend to be much lower than in other parts of the same country. In the US, where tenant households made up 35% of the total in 2010, the rates in New York and Los Angeles were 69% and 62% (US Census Bureau, 2011). In the UK, in 2011, 50% of households rented accommodation in Greater London compared with 36% nationally (Mayor of London, 2014: 8). While demography influences the higher rate of renting in metropolitan areas, such places are likely to have proportionately more single people and migrants than elsewhere, high house price to income ratios are the critical problem.

In developed countries, the affordability and the desirability of ownership are also influenced by the availability of social housing. In many countries in north-west Europe the social housing stock is extensive. In 2008, it made up 23% of the total housing stock of Austria, 19% of that of Denmark and 32% of that of the Netherlands (Dol & Haffner, 2010). While there has been a recent trend in countries like the UK to sell off this housing stock, it is still extensive. And, insofar as most of the social housing is usually allocated to low-income families on a rental basis, the linear relationship between household income and tenure is consolidated. Even where the stock of social housing is limited, subsidies to the poor reduce the cost of renting. Housing vouchers have been used extensively in the United States and housing benefits in the UK (Crisis, 2012; Khadduri, 2003).

For all these reasons, therefore, most developed countries exhibit a clear pattern. The better off tend to own, poorer households tend to rent. The relationship might be even clearer if data were available to measure households’ permanent income. Goodman (1988) has argued that permanent household income is more important than current income in determining the likelihood of homeownership.² Perhaps more significant in the decision to buy is a household’s aversion to risk. Many studies have shown that uncertainty about earnings reduces the probability of owning a home in the United States, Germany, Italy, and Spain (Díaz-Serrano, 2005a, 2005b; Haurin, 1991; Robst, Deitz & McGoldrick, 1999).

In the Global South, of course, the housing options facing the poor are different. The housing shortage is far worse, there is little social housing available, and mortgage finance systems are poorly developed (Bouillon (ed.), 2012; Pomeroy & Godbout, 2011; Rojas & Medellin, 2011). The combined quantitative and qualitative housing deficit in many countries almost matches the total existing housing stock. Few countries have much social housing: only oil-rich countries, apartheid South Africa and in ‘planned’ cities such as Abuja, Brasília and Ciudad Guayana (Grimes, 1976; UNCHS, 2003). And, the availability of mortgage finance is very limited. For example, “Latin America constitutes only 1.5 per cent of the global mortgage market. Residential debt as a proportion of GDP is low: for Brazil and Peru the percentage is only 2 per cent. The highest in the region is Chile with 12 per cent, which is still remarkably lower than in the USA and the UK which stand at over 70 per cent” (UN-HABITAT, 2011: 12).

The key difference with developed countries, however, lies in the ‘option’ of living in self-help or incremental housing, which constitutes the bulk of new construction in most poor countries. Soliman (2004: 201) estimates that 62% of Cairo’s population and 72% of that of Alexandria live in areas that were developed informally. In Brazil, informal submarkets and household self-help initiatives have been estimated to account for approximately three-quarters of all housing production between 1964 and 1986; and in Mexico informal housing construction accounted for more than half of the housing units built between 1980 and 2003 (UN-HABITAT, 2011: 8). The phenomenon of self-help housing means that de facto ownership has spread in a way unknown in most of Europe.

Most incremental housing lacks a property title, at least initially. However, the households who build this form of shelter regard themselves as the owners and, despite the efforts of some governments to remove informal settlements, for example, in China, India, Zimbabwe and (particularly during the authoritarian period) Latin America, the self-help housing stock has grown continuously. While there is some debate about whether those without title deeds should be properly regarded as owners, this paper will consider households living in informal accommodation as constituting ‘ownership’.³

While incremental housing is ubiquitous in the Global South, it is not an option that is available to every family. In some cities, governments prevent access to public land, the usual target of land invaders, and in other cities, private owners protect their land from invasion. In Ecuador, land invasions are common in lowland Guayaquil but infrequent in Quito where the incidence of renting is much higher. As a result, there are often major differences between household tenure in cities in the same country. For example, in the metropolitan areas of Brazil, the proportion of home owners ranges from a high of 74% in Belém and Manaus to a low of 48% in the Federal District (IBGE, 2010). In Colombia, home ‘ownership’ is highest in lowland cities, such as Cúcuta and Montería, where land invasions have been very common and relatively low in highland cities, such as Bogotá and Manizales.

² Although Cooperstein (1989) has argued the opposite: current income, wealth, and the transaction costs of homeownership are more important, especially for first time home buyers.
³ A status that most census authorities in the region concede to most occupiers of informal housing.
where free land has rarely been available (Gilbert, 1981; Torres, 2012). Since the majority of self-help households are likely to be numbered among the poorer half of the income distribution, the option of living in incremental housing is likely to upset the linear relationship between per capita income and tenure found in most developed countries.

Fig. 1 shows that in Ecuador while higher income groups are more likely to own, ownership is spread across the income range. But in cities such as Guayaquil where access to self-help ownership is easy, rates of ownership are higher among the very poor than among the richest. In Quito, by contrast, it is more expensive to obtain a plot of land and so the ‘normal’ pattern appears: the rich are much more likely to own than the poor. What is also apparent in the figure is how many households in every income group do not own: for a variety of reasons they rent, borrow or share.

However, the growth of self-help housing has also created space for tenants (Gilbert et al., 1993; Escallón (comp.), 2010). Indeed, in the consolidated self-help housing areas of Bogotá, tenants outnumber owners, the latter creating space for renters as a means of supplementing their household income (Gilbert, 1999). In Africa, self-help settlements accommodate both owners and tenants, although there are major variations between cities. For example, most ‘slum’ dwellers in Nairobi are tenants but most in Dakar are home owners (Gulyani et al., 2012).

The availability of rental accommodation in serviced areas of the South also distorts the linear relationship between income and tenure. Some poor families eschew the option of building their own home by renting a room or apartment in a serviced area. This is particularly the case for households without children and those who have a sufficiently high income to rent. Renting also suits those households that are mobile, those with workers employed in the central areas, new families, and households headed by either the old or the infirm (UNCHS, 2003). This is why some households remain in rental or shared accommodation even though they have the resources to acquire their own home. Some families will accept home ownership even when it means building a home on the poorly serviced periphery, for others this is anathema. Some tenants, despite living in crowded conditions and who could have much more space as home owners on the periphery, cling to their rental accommodation because of its location or access to services. Others are simply too mobile or insecure about their future to buy or build a home (Torres, 2012: 22). For this reason, work in Latin America has found that tenants are often more affluent than owners (Gilbert, 1983; 1999; Bouillon (ed.), 2012).

So far, however, too few studies have explored how housing tenure varies with household income in LAC countries; an omission which this paper hopes to correct.

### 3. Method

This study is based on MECOVI data from household surveys in seventeen LAC countries. MECOVI is the Spanish acronym for the Program for the Improvement of Surveys and the Measurement of Living Conditions in Latin America and the Caribbean (Mejoramiento de las Encuestas de Hogares y la Medición de Condiciones de Vida) which is administered by several multilateral institutions. The MECOVI study provides harmonized data sets on demographic and socio-economic characteristics of households in each country. This is only the second time that these data have been used to analyse residential tenure and published in English (the first was Gandelman (2009)).

Housing tenure options from the MECOVI data consist of three types: ownership, renting and other. Ownership includes households who are buying a house with a mortgage or have paid off a loan as well as households who live in self-help housing, whether or not they hold a legal title to their home. Other tenures include those households who share accommodation with friends or kin, those who have been lent accommodation and those who live in a house provided by governments or employers.

Our analysis of the data was conducted in two stages. First, we constructed histograms of each country’s urban tenure structure by income decile. We only used data for urban households, since housing tenure choice in rural areas is very different. For example, in Mexico in 2010, 2.7% of rural households rented compared with 17.4% in urban areas (Salazar et al., 2012: Gráfico 4), in Peru, 18.9% rented in urban areas compared with only 4.6% in the countryside (Calderón, 2012: Tabla 7) and, in Uruguay in 2009, 24% households in Montevideo were renting and only 5% in the rural areas (Macellaro, 2010: tabla 3A).

Second, we used multi-nominal logistic regression to estimate the likelihood of tenure choice of households with different characteristics. The probability of choosing each housing option was estimated with respect to that of the reference tenure option: renting by households in the lowest quintile. The econometric model was expressed by Equations (1)–(3).

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4 For more detail about the MECOVI data set see: http://web.worldbank.org/\ WEBSITE/EXTERNAL/COUNTRIES/LACEXT/EXTLACREGTOPPOVANA/0,contentMDK:\ 20886217-pagePK:34004171-piPK:34003707-theSitePK:841175,00.html The data are only available to researchers working at the UN Economic Commission for Latin America, the Inter-American Development Bank or the World Bank.
irregularly), there is a U-shaped distribution with high rates of ownership in the Republic (more or less), Guatemala, Honduras and Paraguay (but second deciles. Elsewhere, in Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador and Peru where highest income decile. Overall, therefore, the results show that the data record current household income rather than permanent income. To compensate we introduced educational attainment as a control variable (Cooperstein, 1989). The household income data include most sources of income but exclude other sources such as financial remittances from families abroad and returns from renting. The calculations in Table 2, however, use dummies rather than real income figures. The reason is that each country has a different currency unit which makes comparison between countries difficult. Using the income level of each decile relative to the lowest income group in the same country allows for a more meaningful comparison.

4. Results

Table 1 shows that owning is the dominant urban tenure in every country except Colombia, although there are major differences between countries in the incidence of ownership. In Argentina, Brazil, Costa Rica, Guatemala, Mexico and Paraguay, at least two-thirds of households own their home while in Venezuela, it is over ninety per cent. Less than one-third of urban households rent accommodation in any country bar Colombia. In most countries other tenures are quite common and in Bolivia, El Salvador, Jamaica, Uruguay and Peru the incidence of other tenures is greater than renting. In most countries the most typical form of other tenure is sharing with friends or kin although in Bolivia households signing an ‘anticresis’ contract is common.

How urban housing tenure varies with household income in the seventeen case countries is shown in Fig. 2.

In almost every country household in the highest income decile have a higher incidence of owning than the poorest, the only exceptions being Chile, Colombia, Honduras and Venezuela where the difference is minimal or non-existent. A variation in this pattern, however, is apparent in Ecuador, El Salvador and Peru where in those countries the poor are able to buy plots in housing programmes; in those countries the poor are able to buy plots in housing programmes whereas higher income groups are deemed ineligible (Gilbert, 2002; 2004; Held, 2000; Rojas, 2001; Sabatini et al., 2012; Salcedo, 2010).

The higher homeownership rate among the lowest income groups in many LAC countries can be explained mainly by the availability of self-help housing. As explained above, many extremely poor families cannot afford to pay rent. For them the only real options are to occupy a plot of land and build a shelter or to share with family or friends, assuming that these opportunities exist. The former is a particularly attractive option in those cities where political conditions allow the poor to invade land. This is an option that has traditionally been less available in cities like Bogotá, Quito and São Paulo, where land invasions have usually been discouraged and the poor have been required to buy lots in un-serviced and technically illegal settlements (Gilbert, 1981; Klak, 1992; Sachs, 1990).

Our contention that the high rates of ownership among the very poor are explained by the alternative of self-help housing is supported by the information in Fig. 3. This shows the share of unsecured title in owner-occupied housing units in Argentina, Mexico and Peru. In general, the share of unsecured tenure falls as

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5 Venezuela may be an exception insofar as the law prohibits the renting of dilapidated or semi-serviced ranchos, which leads to underreporting on the part of landlords. The incidence of sharing is also suspiciously low.

6 Anticresis is a tenure situation in which the tenant has to pay a large amount of money (often between 25 per cent and 40 per cent of the value of the house) in advance, but lives rent-free for an agreed period of time (generally two or three years). After this period the house owner returns the initial payment and the occupation of the dwelling unless a new period of anticresis or other contract is agreed upon by the parties” (Beijaard, 1992: 43). Anticresis contracts became popular in Bolivia “due to the high interest rates on borrowing from credit institutions and the difficulties in procuring capital” (Richmond, 1997: 120).

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7 These were the only countries for which we had data.
Fig. 2. Distribution of urban housing tenure by household income decile.
household income increases. The higher share of informal settlements in the lower income deciles in Mexico and Peru is reflected in the higher homeownership rate among lower income households. In contrast, Argentina has a relatively lower share of informal settlement and this is manifest in the relatively linear relationship between income and informal homeownership found in the cities of that country.

5. Housing tenure, income and other socio-economic variables

For each country, we calculated the probability of being a homeowner for each income decile relative to situation of households in the lowest decile, controlling for the effects of all other socio-economic variables.
Table 2 shows the effect on tenure of different socio-economic variables in each country.

Income: In ten countries, the probability of homeownership was higher among lower income households than among households in any other income decile. Among the remaining seven, the patterns were variable. In Brazil and Colombia, ownership levels among the poorest were matched only among households in the richest decile. In Costa Rica, only the top three deciles had a higher probability of owning than the bottom two deciles and in Mexico ownership was more likely among the top five deciles. By contrast, in Bolivia and Ecuador, virtually all households had a greater chance of ownership than the poorest. In Jamaica, there was no clear pattern. In sum, a majority of LAC countries demonstrated a negative relationship between income and ownership, while the rest varied considerably. Only Ecuador and Mexico approximated to the ‘typical’ income-ownership pattern found in developed countries.

Previous research supports those findings insofar as the rich tend to own but among other groups tenure varies inconsistently with income. For example, in Colombia, there does not appear to be a great difference between the incomes of owner and tenant households although nationally 61% of households in the richest quintile have bought or are buying their home compared with only 43% of the bottom quintile (Torres, 2012; Gráfico 3). But national figures differ from those in the big cities. The data for Bogotá show that the incidence of renting rises with income; in 2008, 8% among the poorest quintile rented compared with 35% among the richest quintile.

In Argentina, tenant household incomes are lower than those of owner households but, because their families are smaller, their per capita incomes are a little higher (Moya, 2011: 19). However, there is a major difference in the incidence of renting and owning by income group, with households in the richest quintile almost twice as likely to rent (26%) as those in the poorest (14%). Surprisingly the highest incidence of ownership is found among those in the middle three quintiles (70–72%). In Uruguay, figures for 2006 show that the incidence of renting increased with income those in the top two quintiles twice as likely to rent as those in the bottom quintile (XIX Asamblea, 2010: 3).

In Chile, national data show that the incomes of tenant households are 6% higher than those of owners. However, the pattern differs from city to city. In Santiago, tenants are better off than owners but not in the Valparaíso–Viña del Mar and La Serena–Coquimbo conurbations. In Santiago, the ‘typical’ relationship between ownership and income has been inverted by the government’s long established capital subsidy programme. This policy more or less guarantees a free or highly subsidised home for the deserving poor and the government is effective in targeting them through the CASEN system (Gilbert, 2002; 2004; Held, 2000; Rojas, 2001; Sabatini et al., 2012; Salcedo, 2010). By contrast, better off groups have to mobilise their own resources to purchase a home and many cannot afford to buy the kind of property they want to live in (Sabatini et al., 2012: 82). Arguably, the really poor in Chile cannot afford to be either owners or renters; their only real option is to borrow or share a house — the so-called allegados (Paquette-Vassalli, 1998: 161; Sabatini et al., 2012: 21).

Among the control variables the key relationships are between tenure and age and household size.

Age: Table 2 shows that the effect of age is consistent in every country, the positive coefficients showing that renters are generally younger than owners, a finding that is consistent with other studies in both developed and less developed countries (McCarthy, 1976; UN-Habitat, 2003; Yang, 2009). In Latin America recent studies have found that the average tenant is almost always younger than the average owner. In Mexico, census figures show that in 2010, whereas 90% of household heads over 64 years of age owned their home and only 4% rented, among those aged between 15 and 29, 54% rented and only 29% owned (Salazar et al., 2012: Gráfico 7).

In Argentina, the average age of tenants was 40 years compared with 54 among owners (Moya, 2011: 19). In Lima, the average age of tenants living in consolidated barrios was only 33 years (Torres, 2012: 42); in Kingston a high proportion of tenants were in their late twenties (McHardy, 2012: 10); and in San Salvador and Santa Tecla almost “half are under the age of forty” (Vance, 2012: 42).

Household size, gender and marital status: Household size increases the probability of homeownership in every country except Honduras although in some countries the results are not statistically significant. Earlier research has found that tenant households are typically smaller than those of owners, either because they consist of single people living alone or because couples have fewer children.

The effect of gender on tenure is mixed, suggesting that the opportunity for female-headed households to own a home varies between countries. Although few of the results are statistically significant, unmarried households generally had a lower frequency of ownership except in Brazil, Dominican Republic, Uruguay and Venezuela where married households seemed to be at a disadvantage. Widows, however, seemed to have a better chance of ownership, largely because of their more advanced age. Earlier research again supports these results. In Mexico, more tenant households have female heads than owner households (Salazar et al., 2012: 21) but, in Brazil, the situation varies; women-headed tenant households do not predominate in either Salvador or São Paulo but are more common in Curitiba, perhaps a consequence of a much higher incidence of women-headed households (Pasternak & D’Ottaviano, 2012: 79).

Education: The effects of educational attainment are also mixed. In Chile and Venezuela, higher educational attainment results in a lower possibility of homeownership, whereas in Colombia, the opposite holds. Single-person households or co-residence household type are generally more likely to rent and extended households more likely own.

Form of shelter: The nature of the house is highly significant in
most countries with households living in apartments much less likely to be home owners compared to those living in other kinds of accommodation, the only exception being Bolivia. In general, apartments tend to be of a higher quality than most other forms of housing, particularly in the informal sector. As such, this finding is compatible with earlier research which suggests that many owners live in worse housing conditions than tenants (Gilbert & Varley, 1991; Gilbert et al., 1993). In Mexico, the average tenant house- hold lives in accommodation of superior quality and with better services than the average owner (Salazar et al., 2012; table 6). In San Salvador, “there is little evidence of overcrowding, and generally the accommodation for renters is larger or similar to the average

Table 2
Estimated results of housing tenure choice models (probability of owning rather than renting relative to households in the poorest decile).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Argentina</th>
<th>Bolivia</th>
<th>Brazil</th>
<th>Chile</th>
<th>Colombia</th>
<th>Costa Rica</th>
<th>Dom Rep</th>
<th>Ecuador</th>
</tr>
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<tbody>
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<td>Decile 2</td>
<td>-0.16**</td>
<td>-0.11</td>
<td>-0.15**</td>
<td>-0.1</td>
<td>-0.22**</td>
<td>0.06</td>
<td>-0.1</td>
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<td>-0.12</td>
<td>-0.27</td>
<td>0.19</td>
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<td>-0.27**</td>
<td>-0.21**</td>
<td>-0.41**</td>
<td>-0.34</td>
<td>-0.34</td>
<td>0.1</td>
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<td>-0.34**</td>
<td>-0.56**</td>
<td>-0.08</td>
<td>-0.49**</td>
<td>0.09</td>
</tr>
<tr>
<td>Decile 7</td>
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<td>0.01</td>
<td>-0.32**</td>
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<td>-0.32</td>
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<td>0.13</td>
<td>-0.61**</td>
<td>0.16</td>
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<tr>
<td>Decile 9</td>
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<td>0.09</td>
<td>-0.46**</td>
<td>0.39**</td>
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<td>0.08**</td>
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<td>0.06</td>
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<td>0.13**</td>
<td>0.13**</td>
<td>0.10**</td>
<td>0.13**</td>
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<td>Age squared</td>
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<td>-0.00**</td>
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<td>0.02</td>
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<td>-0.03</td>
<td>-0.42**</td>
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<td>-0.10</td>
<td>-0.12</td>
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</tr>
<tr>
<td>Widowed</td>
<td>0.27**</td>
<td>-0.16</td>
<td>0.28**</td>
<td>0.29**</td>
<td>0.18**</td>
<td>0.38</td>
<td>0.64**</td>
<td>0.00</td>
</tr>
<tr>
<td>College</td>
<td>-0.06</td>
<td>0.09</td>
<td>0.11</td>
<td>-0.13*</td>
<td>0.46**</td>
<td>0.19</td>
<td>-0.04</td>
<td>0.04</td>
</tr>
<tr>
<td>No education</td>
<td>-0.30**</td>
<td>-0.16</td>
<td>0.06</td>
<td>-0.26**</td>
<td>0.17**</td>
<td>0.05</td>
<td>-0.08</td>
<td>-0.11</td>
</tr>
<tr>
<td>Single household</td>
<td>-0.18**</td>
<td>-0.08</td>
<td>0.09**</td>
<td>-0.20**</td>
<td>0.07**</td>
<td>0.01</td>
<td>0.06</td>
<td>0.03</td>
</tr>
<tr>
<td>R squared</td>
<td>0.29**</td>
<td>0.26**</td>
<td>0.12</td>
<td>0.19</td>
<td>0.29</td>
<td>0.20</td>
<td>0.26</td>
<td>0.27</td>
</tr>
</tbody>
</table>

Note: The R square values are generally very low but some of the relationships between tenure and individual variables are statistically significant. * means that the result is significant at the 5% level and ** means significant at the 1% level.
unit offered by public or private housing projects for low-income families” (Vance, 2012: 32). Almost universally, most tenants live in housing with better services than most owners. Across Brazil, tenants live in housing with better sanitary provision than owners (Pasternak & D’Ottaviano, 2012: 29–30), although in the municipalities of Curitiba, Salvador and São Paulo there is little difference because virtually every house is linked to the official system. Poor tenants generally occupy less space than poor owners but the quality of that accommodation is superior; tenants only rent property which is supplied with infrastructure and services and rarely rent flimsy accommodation. Poorer tenants gather in neighbourhoods that are well-established and the proportion of tenants rises with the age of a self-help settlement (Gilbert, 1999; Gilbert & Ward, 1983; van Lindert, 1991). Perhaps the worst living conditions of all are those suffered by sharers and families living as owners in new areas of incremental housing.

**Government policy:** Government policy clearly has some effect on tenure structure. Rent controls have probably diminished the stock of rental housing although landlords in informal housing areas have always tended to ignore the regulations (Blanco et al., 2014; Gilbert et al., 1993). In countries, such as Chile, Colombia, Costa Rica and Ecuador, which have introduced up-front capital subsidies, the chances of poor families owning social housing have increased. This kind of policy has had a particularly strong impact on the tenure structure of Chile and where a substantially higher proportion of government spending has been devoted to it. Perhaps the most important general influence, however, has been the tendency for Latin American governments to promote home ownership through expanding mortgage financing, offering tax incentives to home buyers and generally creating a cultural environment which privileges ownership over renting (Blanco et al., 2014; Gilbert, 2008).

### 6. Conclusions

This study has examined the effect of household income on housing tenure in LAC countries. It reveals that the relationship between income and homeownership is rarely linear. In many countries, as household income increases, the likelihood of owning homes over renting decreases except among the richest households. The main explanation for this non-linearity lies in the high share of informal settlement in LAC countries. As a result of this shelter ‘option’, lower income households are more likely to own than middle-income groups, who are relatively more likely to rent.

The current research underlines previous work in showing that not all poor families rent, even though many tenants also live in self-help settlements. Of course, the pattern varies between countries and between cities in the same country there is still greater variation. As such it is erroneous to make general statements either about the desirability of renting vis-à-vis ownership or about the nature of tenants and owners. Households with different levels of income have different needs but each is forced to modify its behaviour according to the different local and national circumstances facing them. Thus, many households are forced to double up with kin or friends because no reasonable alternative is available. Some single women build homes in invasion settlements because, despite the immense problems they face, land is free and no rent has to be paid for a self-help home. Often it isn’t a high income that encourages home ownership, but precisely the lack of one. It is economic pressure, the impossibility of paying a rent, the need to have some kind of roof in order to live an independent life that persuades some households to obtain an often precarious piece of land and build their own home. And, in places low-income households can obtain ownership through a very different route. In several countries, notably Chile, Colombia, Costa Rica and Ecuador, targeted government subsidies mean that those with low incomes can become home owners while those with higher incomes find themselves ineligible for help.

It should be recognized that this study has several limitations. First, the household incomes considered in this study are current monetary incomes rather than permanent income. As the income of many low-income households is unstable due to their insecure employment status and lack of access to free health care, future analysis should employ estimates of permanent household income. Second, the national household surveys used do not include many significant locational or spatial features of housing besides urban and rural location and form of the house. Third, the fact that it was not possible to distinguish between formal and informal housing or identify the system of construction meant that our hypothesis that high rates of ownership among households with the lowest incomes were a consequence of the availability of self-help housing options could not be properly examined.

The MECOV data prompt a number of possible future research directions. First, most research on renting in Latin America has concentrated on low-income families and we know much less about the tenure choices of middle-income households who make up the bulk of the tenants. Second, we also know rather little about the nature and motivation of landlords and their attitude and reaction to often hostile rental legislation. Third, the relationship between tenure and residential mobility is also less than clear: does ownership restrict mobility and reduce the ability to change jobs between cities or even in the same city? Finally, a much neglected topic in the housing tenure literature concerns sharing. With the exception of Chile, where discussion of the *allegado* phenomenon dominated the housing discourse in the country for a number of years, little work has established who shares, how long they share and why (Gilbert et al., 1993; Mercado, 1992; Necoecha, 1987; Ogrodnik, 1984).

What are the policy implications of these findings? As shown in Table 2, each country has its own housing tenure pattern, suggesting that no ‘one size fits all’ housing policy is likely to be effective. What are clearly needed are policies that are more tenure-neutral; homeownership is an inappropriate solution for many households at particular points in their life cycle (Blanco et al., 2014; Gilbert, 2008; Peppercorn & Taffin, 2013; UNCHS, 2003). There is nothing inconsistent with encouraging homeownership in the long-term and increasing the rental housing stock to accommodate migrant, young and particularly internally displaced households. Similarly there is no reason why any government wishing to subsidise housing demand should not provide subsidies to BOTH owners and tenants.

Clearly effective housing policies for the better off are likely to be very different from those of the poor. Hence it is perfectly sensible to develop mortgage systems for the better off while upgrading informal settlements. Whether the current vogue to construct large numbers of formal housing units for low-income groups, as in Brazil, Chile, Colombia and Mexico, is wholly appropriate is open to question. But that is the subject of a different research project.

### References


