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## **Households Led by Women:**

Understanding Access to Housing  
Credit in Latin America and the  
Caribbean

Nora Libertun de Duren

Inter-American Development Bank  
Housing and Urban Development Division

November, 2023



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## **Abstract**

The share of Latin American and Caribbean households led by women is rapidly increasing, at the same time as these households are overrepresented among those living in housing deficit. In this study, we looked at whether there is a gender gap in access to housing loans, one of the main tools available to housing. In addition, we explored which are the characteristics of FHHs and to which extent they can have an impact on their access to adequate housing. This study shows how FHHs face greater housing deficits. Our findings indicate that gender gaps in other areas, most importantly in labor markets, are conditioning income and therefore access to financial services. And yet, once results are controlled for observable variables, the gender gap in obtaining a mortgage in LAC shrinks but persists. At all income levels, women had a lower proportion of housing credit ownership than men did at the same income level. That is, a woman would need higher levels of income and education than a man does to achieve the same access to financial services. Likewise, gender gaps are noticeable even when comparing men and women with housing loans. For example, our results indicate that women in the second wealthiest quintile would have the same access to credit as men in the second poorest quintile. Our study also supports the notion that FHHs tend to prioritize housing location over housing, which may explain why FHHs are overcrowded even if not poor.

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## Foreword

Access to adequate housing is essential for households' wellbeing, and an important determinant of the intergenerational transmission of poverty (Chetty et al 2014). And yet, the latest global survey on the housing deficit—that is, inadequate housing—estimates that by 2025, up to 1.6 billion people, equivalent to around 440 million households, could be living in inadequate housing units (UN-Habitat, 2016). Considering the economic crisis triggered by the COVID-19 pandemic and the recent surge in climatic and environmental disasters in urban areas, the need for housing is likely to be even greater than this alarming projection. Among those in dire need of housing, female-headed households (FHHs)<sup>1</sup> are disproportionately affected. This is particularly true for the Latin American and Caribbean (LAC) countries, the share of FHH is rapidly increasing and FHH are overrepresented among those living in housing deficit.

This study aims to contribute to a better understanding of the characteristics and causes of housing deficit among FHHs in LAC. For this purpose, this study begins with a review of the literature on the magnitude and causes behind the greater housing deficits among FHHs. It also includes a qualitative study of FHHs in Mexico City. Its findings support the notion that a considerable number of FHHs opt for safer neighborhoods, even if it means living in overcrowded conditions or sharing accommodation with other families.

The second part of this study investigates the gender gap in access to housing credit in Latin America and the Caribbean (LAC). Results show that women who have acquired housing loans have distinct characteristics from those without them. However, despite higher education levels and better employment status, findings indicate a bias against women in housing credit markets, reflecting other systemic inequalities in society, particularly in labor markets. The study concludes with a reflection on the implications of these findings vis a vis the housing needs of FHHs.

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<sup>1</sup> Female-headed households: Households where either no adult males are present, owing to divorce, migration, non-marriage, or widowhood; or where the men, although present, do not contribute to the household income.

# 1. Understanding Housing Deficits among Households Led by Women

Though women account for only a quarter of landowners in both urban and rural contexts, even when comparing households within the same income brackets, FHHs are less likely to own their homes and more likely to experience housing deficits than are male-headed households (MHHs) (Chant, Moser and McIlwaine, 2015). In a large sample of LAC countries,<sup>2</sup> for instance, 72 percent of MHHs own their homes, while only 65 percent of FHHs can make the same claim (Gandelman, 2009). Furthermore, recent data from 20 developing countries indicate that most women aged 15 to 49 reside in slums, with women in such settlements facing even greater challenges in securing adequate housing than their male counterparts (UN Women, 2020). This data suggests that the gender of the head of the household factors in the housing conditions of the household.

Poverty plays a significant role in the higher prevalence of housing deficits among women. Throughout history, women have consistently faced higher poverty levels than men in nearly all societies. Moreover, it is estimated that extreme poverty among women has deepened since the COVID-19 pandemic, with approximately 383 million women living on less than US\$1.90 per day in 2022, compared to 368 million men (UN, 2022). Likewise, income inequality, which in LAC countries shows the largest income gap between the top and bottom quintiles of households- has also a gender dimension (UN Women, 2020). A study covering 16 LAC countries<sup>3</sup> found that 26 percent of FHHs were living in poverty compared to 17 percent of MHHs (Amarante, Colacce, and Scalese, 2022).

The fact that FHHs face greater housing deficits across all income levels raises the question of whether other factors beyond income are at play. The research presented in this section supports the notion that FHHs tend to prioritize housing location over inhabiting a non-deficit housing units<sup>4</sup>. Specifically, this study delves into the issue through a combination of quantitative and qualitative analyses of the housing deficit in Mexico City. The findings reveal that a considerable number of FHHs could afford

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<sup>2</sup>Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, and Venezuela from South America; Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama from Central America; and Mexico.

<sup>3</sup> Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Honduras, Mexico, Panama, Paraguay, Peru, Uruguay, and Venezuela.

<sup>4</sup> A non-deficit housing unit, as defined in national surveys in LAC, is one that is legally registered under the name of the resident (legal titles), is built with adequate construction materials, is connect to the municipal grid of basic services (water, sanitation and electricity), is not overcrowded (with less than three people per room), and is not shared with another household

better housing units but in neighborhoods lacking safety and robust public transportation services. Consequently, when faced with the tradeoff between investing more in housing location or housing quality, FHHs opt for safer neighborhoods, even if it means living in overcrowded conditions or sharing accommodation with other families.

From a policy perspective, gaining a deeper understanding of the dynamics of housing deficits among FHHs is of utmost importance. Homeownership is a potent mechanism for intergenerational wealth transfer (Chetty et al., 2014). The strong correlation between the gender of the household head, poverty incidence, and the ability to accumulate assets, including the house itself, has far-reaching implications for the global development agenda. This relationship becomes even more critical considering the projected increase in the proportion of FHHs in the future, as female headship rates for women aged from 35 to 44 over the past four decades has increasing across all countries in Latin America (Liu, Esteve, and Treviño, 2017). Female-headed households and living conditions in Latin America. *World Development*, 90, pp.311-328. Furthermore, determining whether addressing housing deficits requires interventions at the city level or the individual housing unit level is essential for designing effective policies (Bouillon 2012). To make that determination, the data used to inform such policies must be re-evaluated. Current measures of housing deficits often fail to incorporate data on housing unit location and its relationship with adequacy levels (Libertun 2020). As the next section explores, connecting data on housing deficit, housing location, and gender of head of households helps to illustrate how urban services can help -or undermine- access to adequate households for all households.

## Female-Headed Households and Housing Deficits

Around one in four households in LAC are led by women, which is the highest proportion of FHHs in the world (UN Women, 2020). It is crucial to note that not only do FHHs represent a sizable proportion of all households, but also that their prevalence is rapidly increasing. For example, in Brazil, the percentage of FHHs rose from 11 percent in 1980 to 33 percent in 2010, while in Chile, it increased from 14 percent in 1970 to 23 percent in 2002 (IDB, 2020) (see Table 1 for other examples). Further, the number of FHHs is increasing faster than MHHs. In Brazil, between 2001 and 2015, the number of FHHs increased by 105 percent, while MHHs increased by just 13 percent. During the same period, the number of single-parent FHHs grew by 28 percent, from 9 million to 12 million (Gandelman, 2009).



**Table 1: Examples of Increase in Proportion of Female-Headed Households**

Country	Timespan	Increase in Proportion
Brazil	1980-2010	from 11% to 33%
Chile	1970-2002	from 14% to 23%
Costa Rica	1973-2011	from 13% to 26%
Ecuador	1970-2010	from 17% to 25%
Panama	1980-2010	from 20% to 25%
Uruguay	1986-2011	from 15% to 44%
Venezuela	1971-2002	from 17% to 24%

*Sources: IDB (2020); Liu, Esteve, and Treviño (2017).*

These statistics highlight the increasing prevalence of FHHs in various Latin American countries and emphasize the need to address the unique challenges these households face in accessing adequate housing and improving their living conditions.

In addition, between 1990 and 2010, the proportion of FHHs increased at a faster rate than the proportion of urban households in the region, indicating significant cultural and demographic changes in LAC societies. For instance, in Mexico, the urban population grew by 7 percentage points (pp) from 71 percent in 1990 to 78 percent in 2008, while FHHs grew by 11 percentage points from 16 percent to 27 percent of all urban households. Similarly, in Argentina, an already highly urbanized country, the urban population grew by 5 percentage points from 87 percent in 1990 to 92 percent in 2009, while FHHs grew by 14 percentage points from 21 percent to 35 percent of all urban households (Chant, Moser, and McIlwaine, 2015)

Widowed women have the highest headship rate, primarily because of women's longer life spans. Following this group are women who are divorced, married with an absent spouse, and single but living with at least one child (Gandelman, 2009) The increase in FHHs in LAC is also related to selective female internal migration from rural to urban areas and between cities. That is, women often move to urban areas in search of higher income opportunities compared to rural areas, where women's labor is frequently unpaid. In this way, gender inequalities in urban and rural areas are profoundly interconnected.

### **Women, Poverty, Unemployment, and the COVID-19 Pandemic**

Although urban women tend to have higher incomes than rural women, gender gaps persist in cities. Gender-related inequalities are evident in important human development indicators such as literacy, access to labor markets, and access to

financial institutions for credit and savings (Arora-Jonsson 2011). Overall, urban FHHs experience poorer living conditions than MHHs, even after controlling for age and educational attainment (Liu, Esteve, and Treviño, 2017). In LAC, the incidence of poverty among FHHs is 10 percentage points higher than among MHHs. In Mexico and the Central American countries combined, this gap reaches 35 percent (Amarante, Colacce, and Scalese, 2022). Low incomes among women workers hinder FHHs' ability to access adequate housing. For example, in Brazil, approximately 60 percent of households living in inadequate housing are FHHs, and of the 3 million households whose rent payments exceed a third of their income 62 percent are FHHs (Gandelman, 2009).

However, these figures do not fully capture the current poverty rates among FHHs and the impact of the covid-19 pandemic on female employment. The global health crisis exacerbated existing inequalities, pushing an estimated 96 million people into extreme poverty by 2021, with 47 million of them being women and girls. Projections indicate that in 2021, there will be 118 women aged 25 to 34 living in extreme poverty for every 100 men of the same age group; this ratio could increase to 121 poor women for every 100 poor men by 2030 (UN Women, 2020).

In LAC, the pandemic had a significant impact on female employment. Female workers were 44 percent more likely than their male counterparts to lose their jobs at the onset of the crisis. Although temporarily unemployed workers have begun to re-enter the labor market, women continue to experience higher job losses. Of the women who were employed before the pandemic, 21 percent reported that they had lost their jobs at the height of the COVID-19 crisis (Bundervoet, Davalos, and Garcia, 2021). For instance, in Chile, the effects of the pandemic on FHHs are evident. In 2021, around 40 percent of FHHs witnessed a reduction in the number of household members with employment compared to 24 percent of MHHs (UN Women, 2021). These findings underscore the disproportionate impact of the pandemic on women's employment, further contributing to the challenges FHHs face in the region.

Gender discrimination in labor markets is likely the main reason for the higher incidence of poverty among FHHs. Despite the increase in women's labor-force participation, there are still documented wage gaps that cannot be explained by differences in observable characteristics, indicating gender discrimination in the labor market (Blau, Kahn, and Boboshko 2021; Kline, Rose and Walters, 2021). In LAC countries, the gender earnings gap ranges from 9 percent to 27 percent (Atal, Ñopo, and Winder, 2009). Additionally, a substantial number of women work in the informal sector, where gender wage gaps are even larger (UN Women, 2020). In LAC, as of

2019, more than 91 percent of the thirteen million people engaged in paid domestic work were women, many of whom were Afro-descendants and rural migrants (CEPAL, 2021).

In addition to gender wage gaps, other gender disparities affect housing access and affordability. Women have less time to generate income because they disproportionately do the work of household care (Power 2020). Legal limitations on women's access to real estate property exist in some countries, -in the Middle East and North Africa, in parts of Sub-Saharan Africa as well as South and Southeast Asia- - with land titling laws often favoring men (Gaddis, Lahoti, and Swaminathan 2022). Even without regulatory restrictions, discrimination in credit markets further hampers women's access to housing and housing credit. A recent study in Chile found that the approval rate for loan requests submitted by female borrowers was 18.3 percent lower compared to otherwise identical loan requests submitted by male counterparts. In terms of housing mortgage loans, although there are no significant differences in interest rates between women and men, the loan amounts are on average 17 percent lower for women, reflecting initial income disparities (Montoya, Parrado, Solis 2020).

Women consistently exhibit lower financial literacy than men and show limited ability to negotiate housing transactions (Goldin 2014). Financial literacy is a crucial factor in accessing housing mortgages. Even after accounting for socioeconomic characteristics, non-cognitive skills such as self-confidence, motivation, and perseverance play a significant role in explaining this gap (Arellano, Camara and Tuesta 2014). Financial literacy is a crucial factor in accessing housing mortgages. For example, in the United States, women pay an average of 8 to 18.4 basis points more on mortgage interest rates than men of the same race, irrespective of mortgage type. This disparity is not necessarily a result of-discriminatory practices but can be attributed to women's tendency to choose lenders based on recommendations rather than actively searching for the lowest rates (Cheng, Lin and Liu, 2011) (See "Women's Access to Mortgages" below.)

For FHHs, living in subpar housing arrangements is not solely a consequence of low income and limited access to credit; it also perpetuates poverty and hinders human development. Women's land ownership, for instance, can reduce poverty among FHHs by enhancing their bargaining power and decision-making over consumption and capital investment (Meinz-Dick, et al., 2019).

Evidence suggests that women's ability to secure housing tenure contributes to reducing intrafamily violence because it allows women to leave abusive relationships. Empirical studies in Ecuador, Ghana, India, and Tanzania have found a negative

correlation between women's housing ownership and violence against women (Pereira, Peterman, and Yount, 2017). Additionally, for FHHs, reducing housing deficits can have significant benefits in breaking the intergenerational perpetuation of poverty. Adequate housing is associated with an overall increase in the level of education attained by families (Cattaneo et al., 2009). Furthermore, women's names being on housing titles can contribute to improved health indicators for the entire household because women tend to allocate extra income to more nutritious food for the family (Muchomba, 2017). Thus, housing is not merely the ownership of material assets but a catalyst that reflects the improvement of women's status in society, which significantly improves the present and future wellbeing of households.

Note that the gender of the household head is not an exogenous characteristic of the household itself. Women who lead households may be inherently different from women who do not, and households led by women may significantly differ from those led by men. One reason for this is that women often underreport their de facto headship (Liu, Esteve, and Treviño, 2017). Women tend to self-identify as the head of the household only if there is no adult male present. Moreover, when there is co-ownership of assets, including housing and land, official data usually record them under the man's name (Deere et al., 2012)<sup>5</sup>. Therefore, data on FHHs primarily represent single-headed households, while data on male-headed households may include households with two working adults, men's assets, and shared assets. Women often consider their ability to generate income and the family life cycle when deciding to act as the head of the household; women with lower incomes and more children are more likely to stay with their partners or relatives, even if they desire otherwise (Gandelman, 2009). Similarly, older women are more likely to be homeowners, often after inheriting property from their husbands (Blanco et al., 2016). These dynamics explain why FHHs may have a higher incidence than MHH of both housing deficits and housing ownership.

## Housing Deficit as a Normative Concept

Access to adequate housing is a fundamental human right recognized by the United Nations Commission on Human Rights, which has included housing in its legal instruments since 1948 (Bergeron, 2019). Additionally, the SDG agenda, particularly SDG 11, emphasizes the goal of ensuring adequate housing for all individuals and sets it as a clear metric of success in achieving a more sustainable and inclusive city.

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<sup>5</sup> For example, in Mexico, even when a married couple builds a dwelling together, the woman's name often does not appear on the title deed (Grajeda and Ward, 2012).

Before international agreements recognized the importance of access to adequate housing, some national constitutions and norms had already enshrined this right. Mexico, for instance, included the provision for adequate housing in its constitution as early as 1917. Similarly, other countries, such as South Korea (1948), Costa Rica (1950), and Honduras (1982), have included provisions for housing in their respective constitutions, preceding the UN resolution on this matter. Furthermore, the constitutions of countries such as Argentina (1994), Belgium (1994), and Kenya (2010) explicitly recognize the right to housing (Oren, Alterman, and Zilbershatz, 2014). These examples demonstrate that even before international consensus, certain nations recognized the significance of ensuring access to adequate housing through their own constitutional frameworks and legal systems.

The concept of housing deficit originated from the recommendations of the 1996 UN Conference and serves as a quantitative metric to objectively assess subpar housing conditions (Crossley, 2015). This approach acknowledges the informal and substandard nature of much of the housing in developing countries. The metrics focus on the material characteristics of housing units, shedding light on the fact that low-income households often reside in informal neighborhoods consisting of inadequate dwellings such as barracks, tents, or improvised structures. Alternatively, such households may face overcrowding or subpar housing in formal housing markets. Housing surveys collect household-level data, initially categorizing households as having housing deficits or not. Within the deficit category, there are two main subcategories: qualitative and quantitative.

Qualitative deficit refers to households experiencing one or more of the following conditions in their housing units: inadequate materials in the roof, walls, or floor; insufficient living space (defined as overcrowding when three or more people share a bedroom); lack of access to public services such as water, sanitation, and electricity in the home; and absence of legal title for the occupancy of the housing unit. Quantitative deficit refers to the gap between the number of homes available and the number of households needing them. Quantitative deficit encompasses households that: share units with non-nuclear-family members; reside in improvised dwellings; or are homeless. By summing up households in qualitative or quantitative deficit, a country's overall housing deficit can be determined.

It is worth noting that this definition of housing deficit differs from that used in the majority of developed countries, which focuses primarily on housing affordability. In countries like the United States, for example, households spending more than 30 percent of their income on housing costs are considered to be under housing

financial stress. This definition assumes that all housing units comply with minimum habitability standards (Bangura and Lee, 2021).

Neither definition, however, considers the crucial aspect of housing location, which significantly affects housing value (Freeman, 1979). The UN-Habitat New Urban Agenda (UN-Habitat, 2016) and SDG 11, specifically indicator 11.2.1, address the issue of location by emphasizing the importance of access to basic social services, schools, hospitals, and public transportation. Yet, analysis of housing deficits often neglects these factors.

Moreover, the current approach to tracking housing deficits has several limitations. The definition of adequate housing needs to consider new features that are essential for the wellbeing of households and their communities. For instance, housing structures' resistance to climatic disasters and natural hazards such as floods and hurricanes are lacking (Summers et al., 2020). Disasters such as Hurricane Katrina in 2005 rendered hundreds of thousands of homes uninhabitable, disproportionately affecting uninsured, low-income households (GAO, 2020). Similarly, hurricanes Eta and Iota in 2020 negatively affected the lives of millions of people in Central America ("Hurricane Iota," 2020). These events illustrate the urgent need to incorporate environmental resilience into housing assessments.

The COVID-19 pandemic further underscored the need to review and update the definition of housing deficit in response to emerging challenges. Inadequate housing conditions exacerbated the difficulties households faced during the pandemic (Corburn et al., 2020). For instance, residents of dense informal neighborhoods without access to basic water and sanitation services struggled to take the precautions necessary to prevent exposure to COVID-19 (Blackman et al., 2020). Moreover, the pandemic highlighted the importance of digital technologies in delivering essential health information and education services to households. The availability of internet access and digital connectivity as essential services has become a critical consideration (OECD, 2020).

By focusing solely on the housing product and neglecting other elements of the entire housing production cycle, current metrics may lead to inefficient resource allocation and incentives. Housing deficits can arise as a result of factors unrelated to the quantity or quality of housing units. Constraints on housing production, such as onerous regulations, limited credit availability, or political cycles that prioritize funding massive housing complexes for short-term economic gains, can contribute to housing shortages and deficits (Monkkonen, 2013; Hoek-Smit, 2006; Olaya, Vásquez, and Müller, 2017). Additionally, the location and availability of land can

influence the type of housing created, often resulting in housing units that do not meet demand and fail to alleviate deficits, particularly for FHHs (Libertun, 2018). In addition, the data does not capture any demographic aspect of the household, failing to acknowledge the connection between family's structure -like the gender of the head of the household and the age of the members- and its housing needs.

Furthermore, the current definition of housing deficit relies on a top-down, normative assessment of adequacy, disregarding individual preferences and cultural characteristics. This approach overlooks the diverse housing needs and priorities of different households. For example, FHHs may have distinct priorities, such as preferring intergenerational households, but these preferences are not accounted for in the housing data (Palma and Scott, 2018). Similarly, in some countries, two adults sharing a housing unit without being legally married - even if they consider themselves part of the same households- may be considered "cohabitation" (living with non-related people), leading to mis categorization.- (Liu, Esteve, and Treviño, 2017). Not surprisingly, cohabitation is the most prevalent form of quantitative housing deficit (Cheung, Tsz Kin Chan, and Monkkonen, 2020). Additionally, FHHs often prioritize shorter commuting times over housing quality when allocating their budget (Libertun, 2020; Acolin and Green, 2017).

Overall, there is a pressing need for a more nuanced understanding of housing deficit and housing demand, as well as a deeper comprehension of the diverse housing needs prioritized by different households. The location of affordable housing units in peri-urban areas as a result of development's cost constraints results often in higher commuting costs and lower satisfaction for residents, leading to housing abandonment and mortgage defaults (Libertun, 2018).

## Reframing the Concept of Housing Deficit from the Perspective of Female-Headed Households

It is now clear that FHHs are disproportionately represented among people living in substandard housing. In general, these households earn smaller and more informal incomes, which creates greater barriers to accessing housing credit and formal housing within conventional markets. The lower incomes of FHHs are inherent factors related to their circumstances. Women often face diminished income-generating capacity due to household chores and familial responsibilities, leaving them with less time for paid work than men. As a result, the housing arrangements for these households can further perpetuate poverty or distress.

It is clear that the gender of the household head influences the housing attributes a family prioritizes. These attributes encompass various domains, including the design of the housing unit, the availability of urban services, and the financing mechanisms for buying or renting housing. For FHHs, safety in public spaces and access to public transportation networks proved to be more important attributes associated with the housing unit than the unit itself. Therefore, cities that offer qualitative urban services equally throughout all neighborhoods would enable women to choose less burdensome locations and allocate more resources toward the quality of the housing unit.

Municipalities could also work to reduce transaction costs associated with renting and buying properties and facilitate the mobility of FHHs to different units as their housing needs evolve. From an institutional perspective, addressing proximity to social networks that FHHs value poses a more complex challenge. Governments cannot replicate or replace the value of such networks through market mechanisms or social policies. They can, however, acknowledge in their programs that households are not indifferent to these factors, particularly in the case of low-income FHHs, where community and family ties hold foremost importance.

In crafting effective housing policies, three aspects deserve emphasis. First, better data and updated metrics are needed. Data and metrics are intrinsically linked since data collection relies on the definition of housing deficits. Therefore, qualitative studies are necessary to uncover the diversity of conditions within similar types of deficits.

Second, an understanding of housing choices rooted in territorial considerations is essential. It is crucial to include location metrics when assessing housing attributes, enabling the capture of critical issues connecting housing and cities, such as access to social services and vulnerability to climatic events such as floods and hurricanes.

Lastly, targeted beneficiaries of housing policies, or any policies for that matter, must have a voice in defining their own needs. Their perspectives and experiences should inform policy-making processes to ensure that interventions address their specific challenges and aspirations.



## Box 1: Mexico City and Female-Headed Household Housing Demand

Mexico City offers valuable insights into the specific housing demands of FHHs. With the city itself home to 9 million people and standing in a metropolitan area of over 22 million, it is among the most populous urban areas in the Americas.

The city has experienced profound changes in traditional household structures and marriage patterns, including lower fertility rates, increased longevity, and delayed marriage and maternity, resulting in smaller households and more FHHs (Esteve, García-Román, and Lesthaeghe, 2012). Significantly, FHHs account for 38 percent of all households, compared to 29 percent at the national level (INEGI, 2018). In addition, there is excellent data on housing deficits. In 2015, the National Institute of Statistics and Geography (INEGI) conducted a comprehensive survey of households in all 16 city districts.

### Methodology

The study explore why FHHs who are not poor live in housing deficit conditions. Researchers hypothesized that FHHs tolerate certain housing deficits if doing so enables them to afford a housing unit that meets their most important needs.

The quantitative approach estimated the housing deficit at the city level using data from the INEGI from 2015. Data on household assets (specifically, ownership of a flatscreen TV, a computer, an internet modem, and a car) were used as a proxy for income. Additionally, the data allowed for the creation of a map showing the number of households in deficit per district, providing insights into the geographical distribution of the housing deficit.

The qualitative approach involved four focus groups of residents in the central districts of Miguel Hidalgo, and Alvaro Obregon, in Mexico City DF -each one composed of ten respondents and one facilitator- to explore which housing attributes FHHs prioritized in their housing choices. All focus groups consisted of heads of households living in overcrowded conditions, which is the most prevalent housing deficit in Mexico City. The variations among the focus groups were based on the gender of the head of the household (female or male) and the income level (above or below the third quintile).

### Findings

#### *Quantitative Analysis*

- The housing deficit in Mexico City affects 2.7 million people, which equals half a million households.

- The most prevalent deficit is overcrowding, which affected 29 percent of these households.
- Among all households, 36 percent are FHHs (with or without children).
- Surprisingly, more than half of the heads of households in deficit had completed at least one year of secondary education,
- On average, FHHs tend to be poorer than MHHs. The location of households in deficit demonstrates a strong correlation between income and neighborhood affluence. However, more than 200,000 households from the top three income quintiles were living in overcrowded conditions in the central districts of Miguel Hidalgo, and Alvaro Obregon, supporting the hypothesis that these households prioritize housing attributes beyond what is defined as a housing deficit.

### *Qualitative Analysis*

The focus groups aimed to identify the housing attributes that were more relevant for non-poor households that live in overcrowded conditions, particularly among FHHs. Location is the most important attribute of the housing unit. For FHHs, location is a complex notion expressed as being close to someone who can provide childcare, emotional support, and material resources. In terms of neighborhood attributes, FHHs mentioned the safety of the neighborhood and access to public transport among their priorities. Less relevant for FHHs were the quality and size of the housing unit per se, while MHHs placed more emphasis on those attributes. All low-income households were more likely to have informal arrangements, such as sublets or occupation of self-built rooms. This is not simply the result of a lower income but also of limitations caused by lack of formal, steady employment.

### **Conclusion**

The analysis of overcrowded households in Mexico City uncovered the fact that, given a choice, FHHs prioritize the location of housing units over other attributes, including size. The significance of location in a household's considerations of housing options is well recognized in the real estate domain. But housing policies often overlook this fact and focus primarily on increasing the production of affordable housing, which frequently fails to cater to the actual needs of the intended beneficiaries -particularly of FHH who depend on the proximity to services and social networks to manage the burden of household care. Neither the metrics used to measure deficits, nor the housing units constructed, consider the possibility that households may be unwilling to relocate to improved housing units if they are situated in different areas of the city

## 2. Women's Access to Mortgages

The gender of the head of a household is one determinant of the household's income. Data are not available for all countries, but in the 16 countries in LAC where it is available, 26 percent of females living with no other adults were poor, compared with 17 percent of males in the same situation (Amarante, Colacce, and Scalese, 2019). For these households, the impact of a lower income transcends access to material goods and has implications for access to formal institutions for borrowing and saving (Fernandez and Tranfaglia, 2020; Chen, Huang, and Ye, 2020; Ongena and Popov, 2016;), which in its turn negatively affects their ability to own real estate.

Restrictions on whether women can hold a property title can also prevent access to financing because titled land is often the preferred form of collateral among banks. Because women are less able to provide documentation of home ownership, they are less likely to be able to apply for a mortgage (Libertun, 2021).

In LAC, gender inequality in land ownership is commonly related to the preference for males in inheritance, to privileges in marriage, and to gender bias in community and state programs of land distribution. Inequality is also a result of bias in the land market, with women being less successful than men as buyers (Deere and Leon, 2003). Overall, poor housing conditions and lack of credit are part of a vicious cycle of low income and low access to capital (Libertun, Davis, and Morelli, 2023).

Evidence shows that women have limited access to credit markets and that when they do get access, they receive worse credit terms than men (Fishbein and Woodall, 2006; Goodman, Zhu, and Bai, 2016). For example, a recent study in Chile found that the approval rate for loan requests submitted by female borrowers was 18 percent lower than the approval rate of otherwise identical loan requests submitted by men. In terms of housing mortgages, there were no significant differences between interest rates among women and men, but loan amounts were, on average, 17 percent lower for women. This difference reflects initial income disparities. Similar disparities exist in Brazil, where women face tougher credit conditions and receive smaller loans, even after controlling for a range of factors (Agier and Szafarz, 2013). Interestingly, when given access to credit, female borrowers are less likely to default than men and are more likely to complete all payments on time (Hernández, Libertun, and Acosta, 2021). In Ecuador, despite having higher creditworthiness and lower expected rate of

default on loans than their male peers, female borrowers are less likely to obtain mortgages than men (Hernández, Libertun, and Acosta, 2021).

Given that context, this section aims to investigate and estimate the gender gap in access to housing credit in LAC using the Findex database. Results show that women who have housing loans have distinctive characteristics from those without housing loans: they have, in average, higher education levels within income distribution, better employment status, and better access to formal institutions for financial services. Nonetheless, the effect of having more education on housing credit access and loan amounts granted is smaller for women than for men. Overall, findings indicate a bias against women in housing credit markets, reflecting other systemic inequalities in society, particularly in labor markets.

### Revisiting the Evidence of the Gender Gap in Credit Markets

The bulk of the empirical evidence about the gender gap favoring men has been widely developed and refined in the context of the labor market, mostly because of the private nature of the data on credit applicants, credit conditions, and the characteristics of lenders. The extensive research on gender wage gaps concurs that, despite the increase in labor force participation by women, there are still documented gaps in wages over human capital accumulation and experience (Kunze, 2008; Munasinghe, Reif, and Henriques, 2008). While the economic gains of being educated have been increasing in many developed economies (Autor, Katz, and Kearney, 2008), the persistence of the income gap between male and female workers is not related to the difference in observable characteristics, but rather to the existence of labor-market discrimination (Kline, Rose, and Walters, 2021; Manning and Swaffield, 2008). For example, there is evidence of a “glass ceiling” limiting women’s earnings, with the gap widening at the top of the wage distribution (Arulampalam, Booth, and Bryan, 2007). In sum, while the gender gap in the labor market is shrinking, the share that persists seems to be associated with discrimination against female workers.

In LAC, the earnings gap between men and women ranges from 9 to 27 percent (Atal, Ñopo, and Winder, 2009). In addition, male workers are more likely than female workers to have other income earners at home (Hoyos and Ñopo, 2012.) This is relevant because the capacity of a loan applicant to generate the household’s income is one of the determinants of credit scores often used to approve mortgages. Therefore, any gender wage gap directly influences the homeownership gap. This is particularly relevant for LAC, where according to the Global Gender Gap Report (WEF, 2021), only 64 percent of the Economic Participation and Opportunity Gap between men and women has been closed, placing LAC as the third most

underperforming region after South Asia and the Middle East and North Africa (WEF, 2018).

As for the credit market, there are significant gender gaps in financial inclusion. While there has been significant global progress in expanding financial inclusion, only 58 percent of women were financially included in 2014, compared with 65 percent of men (Musa et al, 2017). The consumer credit market is also permeated by gender gaps. After controlling for credit scores, income, and demographic variables, male borrowers' total bank credit-card limits are 7.7 percent higher than women, and their average bank credit-card limits are 7.5 percent higher (Blascak and Tranfaglia, 2021).

Likewise, gender discrimination in the credit market affects entrepreneurial activities. For example, in Spain, female entrepreneurs who start a business are 10 to 25 percent less likely to ask for a loan than men, instead opting for informal financing. Researchers found that among women who did request a loan, the probability of obtaining one was 10 percent lower than for male peers in the same industry. This effect disappears after two years as banks construct a profile of the new business and gather more information than was initially unavailable. This is especially concerning because firms run by women are the least likely to default on their loans (de Andrés, Gimeno, and Mateos de Cabo, 2021).

On the supply side, there is evidence of worse credit conditions for women and more penalization in access to credit. For example:

- In the United States, female first-time borrowers matched with male loan officers pay higher interest rates and receive smaller and shorter-maturity loans (Beck, Behr, and Madestam, 2017).
- In Italy, women pay between 11 and 28 basis points more for credit than men do, even when controlling for individual characteristics of the borrower, the businesses, and local credit market (Alesina, Lotti, and Mistrulli, 2013).
- In Brazil, women face a glass-ceiling effect on loan size even after controlling for borrowers' personal characteristics (Agier and Szafarz, 2013).
- In Chile, in an experiment in which loan applications were randomly assigned to a balanced sample of men and women, the applications made by women had a 15 percent lower likelihood of being approved than the applications presented by men (Montoya et al., 2020). In this case, both male and female loan officers enacted gender bias against women.
- In China, female borrowers need to pay lenders higher interest to obtain funding success rates comparable to those of men (Chen, Huang, and Ye, 2020).

Cultural patterns also play a role in determining financial access. Women are more likely to lack access to the financial sector in countries with larger gender gaps in education (Morsy, 2020). In more egalitarian countries, women are more likely to apply for formal credit in support of their firms (Chundakkadan and Sasidharan, 2022). Conversely, in countries with strong gender biases, because women believe that their loan applications would be denied, they opt out of the financial system (Ongena and Popov, 2022).

Differences in non-cognitive skills, such as self-confidence, motivation, and perseverance, also explain women's lower access to credit (Arellano, Cámara, and Tuesta, 2018). In addition, the majority of women have little knowledge of how credit products work. For example, women are more likely to take subprime mortgages and to pay higher mortgage rates than men (Cheng, Lin, and Liu, 2011). Significantly, empirical studies show that financial literacy is lower in women than in men, even after considering socioeconomic characteristics.

In the United States, women pay between 8 and 18 basis points more in mortgage interest than men of the same race for all types of mortgages. This disparity is not necessarily a result of discriminatory practices but a result of women being more likely to choose lenders by recommendation, contrary to men, who tend to search for the lowest rate (Cheng, Lin, and Liu, 2011). Also in the United States, although women have slightly higher credit scores than men, they are 32 percent more likely to receive subprime mortgages than men are, regardless of the loan type. That likelihood tends to increase with women's income level, that is, the lower their income, the more likely women are to get subprime mortgages (Fishbein and Woodall, 2006). Likewise, male borrowers pay mortgage rates 58 to 78 basis points lower than women—and 77 to 90 percent of that gap is not explained by observable characteristics (Rensselaer et al., 2014). This gap exists even though women are less likely to default on a mortgage than men (Goodman, Zhu, and Bai, 2016).

## Measuring the Gender Gap in Mortgage Markets in LAC

The Global Findex database provides general and between-country analyses in LAC at the individual level on the gender gap in access to credit. The database provides more than two hundred financial indicators of access and use of formal and informal financial services, covering almost 150,000 people in 144 economies. It is a survey conducted as part of the Gallup World Poll and uses a randomly selected, nationally representative sample with a target population of 15 years and above. In each household surveyed, the respondent is selected by lottery.

To implement the first part of the analysis, the survey's last available datasets (2011, 2014, and 2017) are compiled, including indicators relating to account ownership, payments, saving, credit, and financial resilience, along with a basic set of socioeconomic characteristics (Demirgüç-Kunt et al., 2018). For this study, the most relevant question is whether the respondents have, by themselves or together with someone else, a loan from a bank or formal institution to purchase a home, apartment, or land.<sup>6</sup> Researchers also unified and standardized a set of questions about whether respondents have formal or informal access to financial services for borrowing and saving money.

A first approach to assessing the gender gap in access to credit is subtracting the proportion of women who reported currently having a housing loan from a bank or formal institution from the same proportion of men. The result of this calculation, however, does not account for any differences in other observable characteristics, such as age, income, or education. Accordingly, researchers controlled for the individual characteristics available in the Findex database relevant to determining applicants' access to credit, and also country and time-specific fixed effects to control for any structural differences inherent in each country's credit market conditions and temporal trends in access to credit.

Still, there are substantial limitations to interpreting the results, since men and women are different in unobservable characteristics that may correlate with the decision to ask for a loan and with being approved for one. For example, there may be differences in credit scores, literacy, property-ownership status, risk-taking behavior, and discrimination from banks. In that regard, it would be useful that future efforts of data collection on financial behavior include questions that allow distinguishing if answers are provided on behalf of the household or of the individual (particularly in the case of housing loans), the gender of the head of the households, and the financial literacy of respondents<sup>7</sup>.

To refine the approach, we disaggregated that gap into a difference in observable components and a difference in return; that is, the unexplained part. Thus, the results

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<sup>6</sup> In the Findex database, the questionnaire asks only if the respondent is female, but not if she is head of the household.

<sup>7</sup> Future data collection may ameliorate this problem, for example, if financial surveys ask (i) whether the individual/household has applied for a mortgage, (ii) whether the mortgage was approved or not, (iii) the amount of the mortgage, (iv) whether the mortgage has already been paid, (v) why the individual/household applied for the mortgage, and (vi) whether that was the first time the individual/household had applied for a mortgage. The same type of information should be gathered for consumer credit, credit cards, vehicle loans, and other types of credit. Questions about financial literacy should be included.

should be understood not as causal effects but as partial correlations. Even though they are not causal, these estimates allow for identification of the most common characteristics of women who are willing to apply for mortgage credit and do so successfully, and to recognize how these characteristics differ from the majority of women.

## Who Has Access to Credit?

Even before analyzing differences by gender, it is important to note that access to any kind of credit relates to the level of development of formal financial markets in the region. Residents of high-income economies have more access to all types of credit because 90 percent of borrowers reported borrowing from a financial institution. Conversely, in non-high-income countries, family and friends were the most common source for credit. For example, in Argentina, Brazil, Colombia, and Peru, fewer than 25 percent of borrowers applied to formal institutions for credit (Demirgüç-Kunt et al., 2018).

This pattern remains true for the specific case of access to housing credit because housing credit relates strongly to national economic conditions. Figure 1 shows the average probability of having access to housing credit by region in each Findex survey.<sup>8</sup> Being in a high-income country increases the likelihood of having housing

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<sup>8</sup> The countries' categorization differs each year, but we standardize them to be fixed across survey waves as follows:

### High Income countries

- Organization for Economic Co-operation and Development (OECD) members: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Israel, Italy, Japan, Latvia, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, South Korea, Sweden, Switzerland, United Kingdom, United States.
- Non-OECD members: Bahrain, Cyprus, Hong Kong SAR-China, Hungary, Kuwait, Lithuania, Malta, Oman, Puerto Rico, Qatar, Romania, Saudi Arabia, Singapore, Swaziland, Taiwan-China, Trinidad and Tobago, United Arab Emirates, Uruguay.

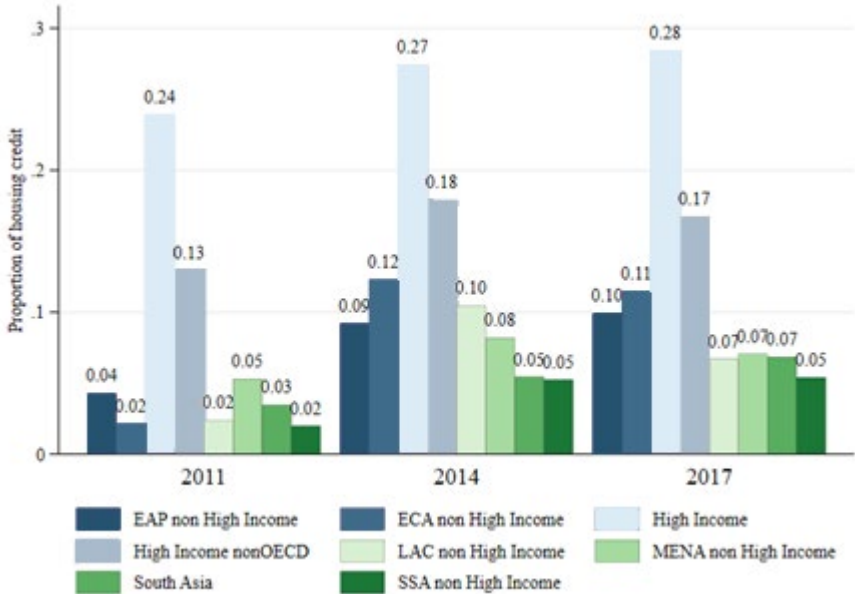
### Non-high-income countries:

- East Asia and Pacific: Cambodia, China, Indonesia, Laos, Malaysia, Mongolia, Myanmar, Philippines, Thailand, Vietnam.
- Europe and Central Asia: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Kazakhstan, Kosovo, Kyrgyz Republic, Macedonia, Moldova, Montenegro, Romania, Russian Federation, Serbia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan
- Latin America and the Caribbean: Argentina, Belize, Bolivia, Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, and Venezuela.
- Middle East and North Africa: Algeria, Djibouti, Egypt, Iran, Iraq, Jordan, Lebanon, Libya, Morocco, Syria, Tunisia, West Bank and Gaza, Yemen.
- South Asia: Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka.



credit; this probability is even higher for those residing in an OECD country (by 24 percent in the 2011 wave of the survey, 27 percent in 2014, and 28 percent in 2017). Residents of Sub-Saharan Africa have the lowest access to housing credit (5 percent in 2017).

**Figure 1: Proportion of Housing Credit by Region**



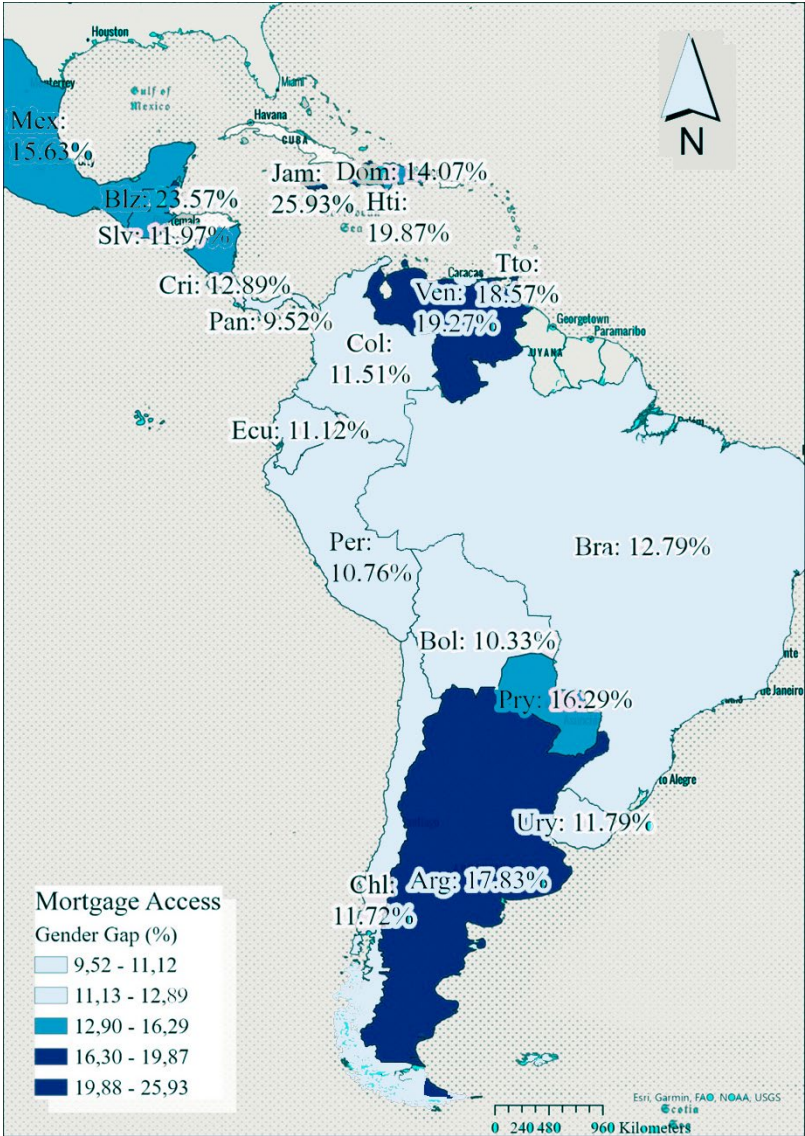
EAP = East Asia and Pacific; ECA = Europe and Central Asia; OECD = Organization for Economic Co-operation and Development; LAC = Latin America and the Caribbean; MENA = Middle East and North Africa; SSA = Sub-Saharan Africa.

Indicators of access to housing credit place LAC countries in the lower third of access by region (7 percent in 2017). Map 1 shows the distribution of the gender gap in access to housing across countries surveyed in Latin America. The country with the largest gap is Jamaica, at 26 percent, followed by Belize, at 24 percent. The country with the smallest gap is Bolivia (10 percent). Chile has an estimated housing access gender

- Sub-Saharan Africa: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central Africa Republic, Chad, Comoros, Côte d'Ivoire, Democratic Republic of Congo, Ethiopia, Gabon, Ghana, Guinea, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Tanzania, Togo, Uganda, Zambia, Zimbabwe.

gap of 11 percent, in contrast to its neighbors Argentina (18 percent) and Paraguay (16 percent), but comparable to Colombia (12 percent) and Ecuador (11 percent).

**Map 1: Estimated Mortgage Access Gender Gap Distribution in LAC Region, 2011-17**



When analyzing access to all kind of credit by gender, in all regions and census waves men have a higher probability than women of having a loan. Figure 2 shows that for housing mortgages, this difference is 2 percentage points in waves 2011 and 2014 (9 percent for men vs. 7 percent for women in 2011, and 14 percent for men vs.

12 percent for women in 2014). The gender difference increased in 2017 by 1 percentage point (14 percent for men vs. 11 percent for women).

Figure 2: Proportion of Housing Credit by Gender and Year – All Regions

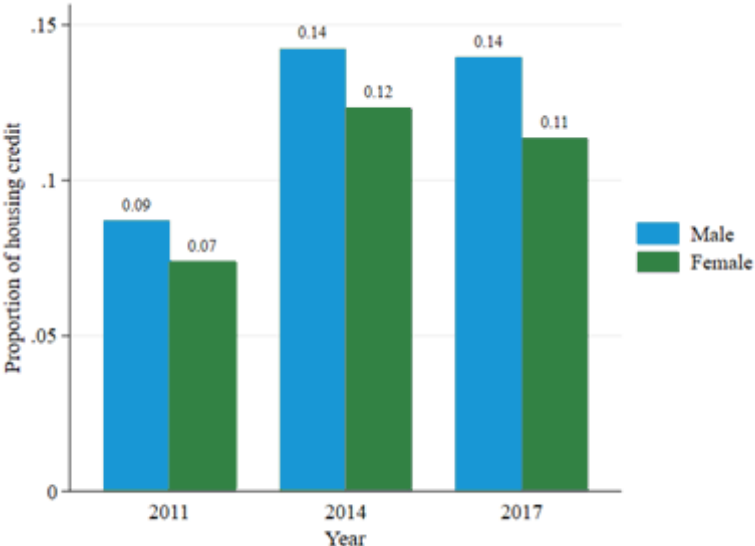
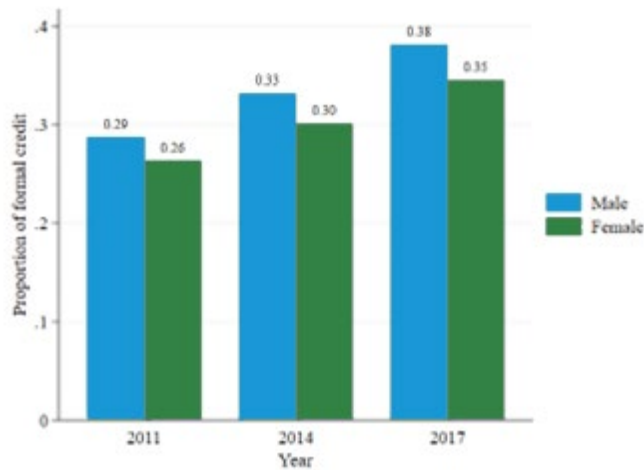


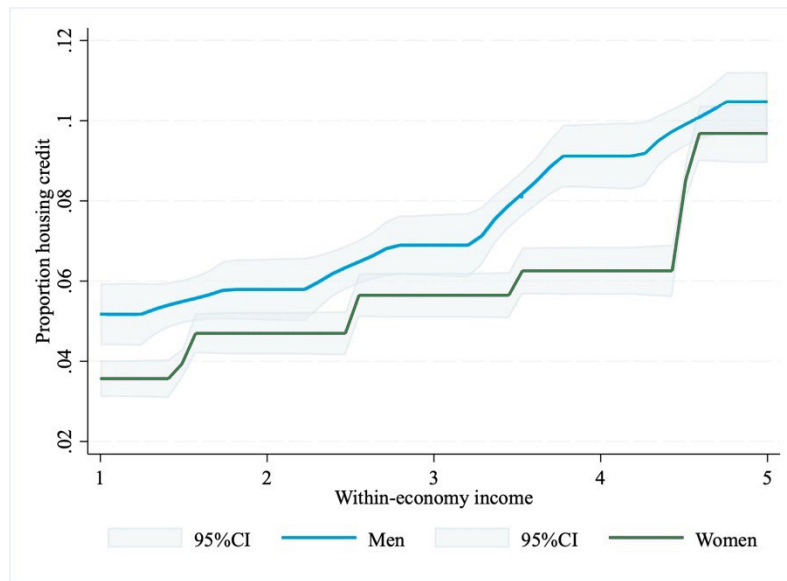
Figure 3 shows that among those who borrowed money in the 12 months before answering the survey, the probability of owning formal credit, which is borrowing money from financial institutions as opposed to borrowing from other sources (e.g., family, friends, stores, private lenders, or clubs) is also lower for women. The gap is 3 percentage points in each survey wave, but levels of access are higher for men and women than in formal credit markets. These numbers indicate that the gender gap persists in both formal and informal markets, and even when access to credit expanded.

Figure 3: Probability of Owning Formal Credit by Gender and Year



Individual income plays a key role in determining access to financial resources. Figure 4 shows the data disaggregated by gender and income quintile. As expected, the higher the income, the more access to credit a household has. And again, at all levels of income, women have a lower proportion of housing credit ownership than men. In the wealthiest quintile, the gender gap is reduced to less than roughly one percentage point. In contrast, the second wealthiest quintile has the greatest gap between men and women. Notably, women in this quintile would likely have the same level of credit as a man in the second poorest quintile.

Figure 4: Smoothed Proportion of Housing Credit Ownership over Income Quintiles by Gender



### Observable Differences between Men and Women Who Have Housing Credit and Those Who Do Not

It is important to underscore that gender differences in economic characteristics go beyond access to housing credit. Table 2 shows a complete set of descriptive statistics aiming to identify the main characteristics related to housing loan ownership, as well as variation in those characteristics based on the gender of the respondent. In general, the proportion of men reporting having a housing loan is 8 percent while for women it is 6 percent.

**Table 2: Characteristics of, and Comparison Between, Men and Women, and Between Men and Women with and without a Housing Loan**

Variables	General			Housing Loan			
	Global	(1) Men	(2) Women	(3) Men with	(4) Men without	(5) Women with	(6) Women without
	Mean (sd)	Mean (sd)	Mean (sd)	Mean (sd)	Mean (sd)	Mean (sd)	Mean (sd)
Has housing loan	6.81% (0.25)	7.87% (0.27)	5.82% (0.23)	100.00% —	0.00% —	100.00% —	0.00% —
Age	38.59 (17.46)	38.49 (17.93)	38.67 (17.02)	41.00 (14.71)	38.27 (18.16)	39.73 (13.96)	38.60 (17.18)
Income quintile	2.99 (1.42)	3.16 (1.41)	2.84 (1.4)	3.54 (1.35)	3.13 (1.41)	3.34 (1.39)	2.81 (1.4)
Completed primary education	35.50% (0.48)	33.50% (0.47)	37.36% (0.48)	23.73% (0.43)	34.36% (0.47)	24.79% (0.43)	38.13% (0.49)
Completed secondary education	52.94% (0.5)	54.72% (0.5)	51.28% (0.5)	55.23% (0.5)	54.68% (0.5)	51.56% (0.5)	51.29% (0.5)
Completed tertiary education	11.22% (0.32)	11.42% (0.32)	11.04% (0.31)	20.66%* (0.4)	10.62% (0.31)	23.37%* (0.42)	10.26% (0.3)
Has account at financial institution	41.78% (0.49)	45.34% (0.5)	38.47% (0.49)	79.00%* (0.41)	42.50% (0.49)	71.55%* (0.45)	36.49% (0.48)
Has debit card	29.96% (0.46)	33.98% (0.47)	26.22% (0.44)	61.47%* (0.49)	31.61% (0.46)	48.25%* (0.5)	24.86% (0.43)
Has credit card	14.51% (0.35)	16.42% (0.37)	12.72% (0.33)	36.27%* (0.48)	14.71% (0.35)	31.61%* (0.47)	11.52% (0.32)
Has saved money in past year	40.35% (0.49)	44.36% (0.5)	36.62% (0.48)	67.99%* (0.47)	42.37% (0.49)	63.95%* (0.48)	35.00% (0.48)
Saved at financial institution	18.78% (0.39)	21.49% (0.41)	16.20% (0.37)	38.41%* (0.49)	19.66% (0.4)	35.08%* (0.48)	14.73% (0.35)
Has borrowed money in past year	24.96% (0.43)	26.61% (0.44)	23.43% (0.42)	75.01%* (0.43)	22.48% (0.42)	74.65%* (0.44)	20.30% (0.4)
Borrowed money from financial institution	11.79% (0.32)	12.91% (0.34)	10.75% (0.31)	62.54% (0.48)	8.69% (0.28)	61.12% (0.49)	7.63% (0.27)
Borrowed money from family or friends	14.53% (0.35)	15.85% (0.37)	13.31% (0.34)	24.73% (0.43)	15.07% (0.36)	23.26% (0.42)	12.71% (0.33)
Received wages in past year	34.43% (0.48)	42.65% (0.49)	26.53% (0.44)	54.84%* (0.5)	41.34% (0.49)	42.15%* (0.49)	25.34% (0.43)
Possibility of having emergency funds (1 = very possible, 4 = not at all)	2.03 (0.99)	1.91 (0.97)	2.13 (0.99)	1.68 (0.89)	1.94 (0.98)	1.95 (0.99)	2.14 (0.99)
Received government transfers in past year	12.35% (0.33)	10.26% (0.3)	14.29% (0.35)	11.95% (0.32)	10.02% (0.3)	14.69% (0.35)	14.28% (0.35)
Has mobile money account	3.88% (0.19)	4.76% (0.21)	3.06% (0.17)	9.70% (0.3)	4.34% (0.2)	6.43% (0.25)	2.88% (0.17)
N	54,187	22,506	31,681	1,771	20,735	1,843	29,838

In every economic dimension measured, men rank higher than women. To begin with, men are effectively wealthier, as indicated by the mean income quintile of 3.1 as opposed to 2.8 for women, and by the higher share of women than men receiving government transfers: 14 percent for women vs. 10 percent for men. The percentage of men earning wages is significantly higher than that of women: 43 percent of men vs. 26 percent for women, a gap of more than 16 percentage points. In addition, the proportion of women who saved money in the past year is lower than for men (8 percentage points less). In line with this finding, when asked about feeling confident about the possibility of coming up with emergency funds, most men felt it was possible, but most women felt it was not.

In this context, it is not surprising that men have higher rates of owning bank accounts, debit cards, credit cards, mobile banking accounts, and savings in banks, and of borrowing money from banks or from friends and family. This last aspect is significant, considering that lower incomes and lower rates of saving make women more likely to need extra funds.

Men and women who have loans differ from the rest of the population in the same manner, and score above the median for their gender in several dimensions. The typical housing credit recipient is older, better educated, wealthier, and has more savings than is typical for the rest of the population. One of the most salient variables is their share of participation in the banking system. Their possession of a bank account is almost double that of the median for all survey respondents, while the rate of possession of credit and debit cards is about triple that of the survey respondent average. Interestingly, people with housing loans are not only more likely to have borrowed money from financial institutions but also from family and friends.

Another aspect worth underscoring is that women who have loans are not representative of the majority of women, and in many dimensions their observable income and wage characteristics are more similar to the median for men. For example, all surveyed men and women with housing loans have earnings above the third quintile, while the median for all women is 2.8. Likewise, 42 percent of women who have a housing loan received wages in the 12 months before the survey, a share that is almost 18 percentage points higher than for women without credit, but that is 1 percentage point less than the median for all men.

In summary, gender gaps in financial inclusion between women and men are noticeable and persist (in a less pronounced way) even when comparing men and women with housing loans. When focusing on survey respondents who do have housing loans, financial inclusion gaps exist between them and the rest of the

population, including when comparing respondents of the same gender. However, the gap between women who have housing loans and women who have not is the largest: women with loans have completed tertiary education, have accounts in financial institutions, have borrowed money, and have credit and debit cards at higher rates than women without housing loans. A greater proportion of women with housing loans earn wages, almost equaling the proportion for the average man.

### Is Being a Woman a Barrier to Obtaining a Housing Loan in LAC?

On one hand, all the data analyzed show that women have poorer access to housing loans. On the other hand, data also show that women differ in observable characteristics that are known to be relevant for receiving these loans. But to what extent is being a woman per se a direct reason for not obtaining a housing loan, vis-à-vis other aspects, such as having a low income or low savings?

To answer this question, researchers conducted an ordinary least square (OLS) analysis to estimate differences in the probability of having a mortgage between men and women (Table 3). The resulting estimate indicates that, on average, women have a lower probability of having a mortgage. However, once demographic and financial covariates, and country and year fixed effects are added, the difference between men and women shrinks. In particular, the unconditional difference translates into a 26 percent gap between men and women, while the conditional on covariates translates into an 11 percent gap. That is, observable differences in characteristics between men and women explained more than half of the gender gap in access to housing credit. The covariates that best explain mortgage access are age, education, income, and financial history (such as having a savings account or credit card, past saving activity, and having borrowed money in the past). Each of these variables positively affects the probability of the respondent having a mortgage.



**Table 3: Estimated Average Mortgage Access Gender Gap (OLS Estimates)**

	Mortgage Access			
	(1)	(2)	(3)	(4)
Respondent is female	-0.0205*** (0.00247)	-0.0162*** (0.00267)	-0.00941*** (0.00202)	-0.00881*** (0.00196)
Respondent age		0.000651*** (8.27e-05)	0.000495*** (7.74e-05)	0.000476*** (6.70e-05)
Respondent education level = 2, secondary		0.0249*** (0.00502)	0.00544* (0.00314)	0.00331 (0.00247)
Respondent education level = 3, completed tertiary or more		0.0773*** (0.0109)	0.0334*** (0.0101)	0.0294*** (0.00766)
Within-economy income quintile = 2, second 20%		0.00630** (0.00260)	-0.000329 (0.00315)	-0.000156 (0.00323)
Within-economy income quintile = 3, middle 20%		0.0173*** (0.00563)	0.00664 (0.00465)	0.00643 (0.00470)
Within-economy income quintile = 4, fourth 20%		0.0253*** (0.00360)	0.00735** (0.00338)	0.00738** (0.00350)
Within-economy income quintile = 5, richest 20%		0.0396*** (0.00469)	0.0124*** (0.00375)	0.0122*** (0.00388)
Has account at financial institution/post office/MFI (composite indicator)			0.0387*** (0.00616)	0.0448*** (0.00632)
Has credit card			0.0286** (0.0106)	0.0314*** (0.00954)
Has saved money in past year			0.0146*** (0.00354)	0.00994*** (0.00335)
Borrowed in past year			0.157*** (0.0130)	0.159*** (0.0140)
(log) Population, 15+, WDI		-1.65e-10* (8.86e-11)	-2.00e-10** (8.14e-11)	-1.27e-09 (8.09e-10)
Observations	53,774	53,571	53,043	53,043
Adjusted R-squared	0.002	0.017	0.116	0.129
Demographic covariates	No	Yes	Yes	Yes
Financial covariates	No	No	Yes	Yes
Country/wave fixed effects	No	No	No	Yes
Men's average access	.08	.08	.08	.08
Estimated gap	-25.7%	-20.3%	-11.8%	-11%

	Mortgage Access			
	(1)	(2)	(3)	(4)

OLS = ordinary least square  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Country-level cluster robust standard errors in parentheses. Included covariates: respondent's age; respondent's education (i.e., a dichotomous variable that takes the value of 1 if the respondent has completed secondary education and a dichotomous variable that takes the value of 1 if the respondent has completed tertiary or more education; excluded categories: completed primary or less, don't know; respondent's income quintile (i.e., a dichotomous variable per quintile excluding the poorest); a dichotomous variable that takes the value of 1 if the respondent has an account at a financial institution, post office, or MFI; a dichotomous variable that takes the value of 1 if the respondent has a credit account; a dichotomous variable that takes the value of 1 if the respondent saved money in the past year; a dichotomous variable that takes the value of 1 if the respondent borrowed money in the past year; and the country 15+ aged population.

This table reports four different estimates: (1) an unconditional mean difference, (2) a difference conditional on demographic covariates mean, (3) a mean difference conditional on demographic and financial covariates, and (4) a difference conditional on demographic and financial covariates, and country and year fixed effects.

The analysis was furthered by applying a Blinder-Oaxaca decomposition to better understand which variables explain the gap between men and women in access to housing loans (Bauer and Sinning. 2008) Specifically, researchers aimed to identify which observable characteristics in women are more (or less) conducive to holding a housing loan when compared to men. Panel A of Table 4 presents the total gap, the gap explained by covariates, and the gap explained by differences in returns (the unexplained gap). Consistent with the estimates reported in Table 3, differences in covariates or observable characteristics account for 56 percent of the gender gap. The remaining 44 percent of the gap remains unexplained—or in other words, it is simply a penalty (or reward) for being a woman.

**Table 4: Decomposition of Estimated Mortgage Access Gender Gap (Blinder-Oaxaca)**

	Total	Explained	Unexplained
Panel A. Overall gap			
Females mean access	0.06*** (0.00)		
Males mean access	0.08*** (0.00)		
Access gap	-0.02*** (0.00) [100.00%]	-0.01*** (0.00) [56.30%]	-0.01*** (0.00) [43.70%]
Panel B. Loadings			
Age		0.00 [-0.98%]	-0.01*** [143.34%]
Has savings account		-0.00*** [28.08%]	-0.01*** [69.68%]
Has credit card		-0.00*** [8.99%]	-0.00 [7.48%]
Saved money in past year		-0.00*** [9.92%]	0.00 [-6.73%]
Borrowed money in past year		-0.01*** [46.96%]	-0.01*** [64.41%]
Education:			
Primary or less		-0.00*** [4.79%]	0.00 [-8.18%]
Secondary		0.00* [-1.98%]	-0.00 [12.49%]
Tertiary		-0.00 [0.57%]	0.00 [-0.29%]
Income quintile:			
First		-0.00 [1.04%]	-0.00 [16.61%]
Second		-0.00 [1.15%]	-0.00 [2.66%]
Third		0.00 [-0.03%]	0.00 [-2.59%]
Fourth		-0.00 [1.25%]	-0.00 [16.92%]
Fifth		-0.00 [0.22%]	0.00*** [-26.76%]
Constant			0.02*** [-189.04%]

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Note: Standard errors in parentheses. Percentages/loadings of each gap in brackets. The explained part of the gap corresponds to differences in observed characteristics that explain differences in credit access. The unexplained part of the gap corresponds to differences in the returns (i.e., coefficients) to each variable that explain differences in credit access.

This concept is further explored in the Panel B of Table 5, which reports how much of the gap each of the included covariates explained, either by differences in the covariate itself (the explained part of the gap) or by differences in its returns (the unexplained part). Differences in financial history explain most of the gap between

men and women in access to housing loans. Almost all of the gap is due to some aspect of women’s financial history; that is, having savings (28 percent), having a credit card (9 percent), having saved money (10 percent), and having borrowed money in the previous 12 months (47 percent).<sup>9</sup>

Looking at the unexplained share of the gender gap, the data show that women benefit less than men on certain variables related to the probability of having a housing loan. In particular, age on the probability of having a housing loan explains 143 percent, possession of a savings account explains 69 percent, and having borrowed money in the past explains 64 percent of the gap. In the case of the age, the coefficient explaining more than 100 percent of the gap implies that the impact of age is worse for women than the composite of all variables. That is, women are particularly penalized for their age, probably because age is associated with the possibility of being pregnant, which is associated with a lower rate of participation in waged work.

To check whether these results are robust to the linearity assumption, we implemented two non-linear Blinder-Oaxaca decompositions, one based on a Logit model and the other based on a Probit model. Table 5 shows that the decompositions between the explained and unexplained gaps are very similar between the linear model and the non-linear ones. Note that the non-linear models tend to put more weight on the explained part of the gap, but in general, the results are the same. Results reported indicate that the decomposition is robust to the linearity assumption.

**Table 5: Linear and Non-linear Blinder-Oaxaca Decompositions Comparison**

	Total	Gap Explained	Gap Unexplained
Linear model (OLS)	-0.02	-0.01	-0.01
	[100%]	[56.32%]	[43.68%]
Logit model (ML)	-0.02	-0.01	-0.01
	[100%]	[57.71%]	[42.29%]
Probit model (ML)	-0.02	-0.01	-0.01
	[100%]	[58.13%]	[41.87%]

OLS = ordinary least square; ML = maximum likelihood.

<sup>9</sup> According to the 2017 Global Findex questionnaire (Demirgüç-Kunt, et al., 2018), having borrowed money has the value of 1 if the “respondent has borrowed money from a financial institution; from family, relatives, or friends; or from an informal savings group/club.”

### 3. Conclusions

Around one in four households in LAC are led by a woman, which is the highest proportion of FHHs in the world (UN Women, 2020), and their prevalence is rapidly increasing. Currently, housing deficit disproportionately affected FHHs. Gaining a deeper understanding of the dynamics of housing deficits among FHHs is of utmost importance because homeownership is a potent mechanism for intergenerational wealth transfer (Chetty et al., 2014) as well as a key factor in present human development given its impact on physical and mental health. In this study, we looked at whether there is a gender gap in access to housing loans, one of the main tools available to housing. In addition, we explored which are the characteristics of FHHs and to which extent they can have an impact on their access to adequate housing.

To investigate whether there is a gender gap in the access to housing credit, we relied on the Global Findex dataset on the 21 LAC countries included in the survey. Our findings indicate that, regardless of gender, the average housing credit holder is older, better educated, wealthier, and has more savings and more experience with banking institutions than is typical for the rest of the population. Data shows that the average score for men is higher in all these dimensions, and that men do have higher levels of income, employment, and savings<sup>10</sup>. This explains why in all regions and census waves, men had a higher probability than women of having any financial product, including a housing loan. Of critical importance for any policies regarding FHHs and housing markets or supporting inclusive financial systems is understanding that as long gaps exist between men and women in access to labor markets, all other gaps will persist.

Thus, the gender gap in the use of and access to housing credit reflects gender gaps in other areas, most importantly in labor markets which are conditioning income and therefore access to financial services. Significantly lower incomes, lower availability of emergency funds, and lower levels of wage-earning work, effectively limits women access to loans. This is aligned with the finding that the largest gap in observable characteristics seems to be between women who have housing loans and women who do not: women with loans earn wages at almost the same proportion as the

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<sup>10</sup> Men have higher rates of ownership of bank accounts, debit cards, credit cards, mobile banking accounts, saving accounts, and even credit from family and friends. This last aspect is significant, considering that lower incomes and lower rates of saving make women more likely to *need* extra funds.

average man, and at a rate 60 percent higher than other women. The median earnings, financial history, and level of education of women with credit are more similar to the median for all men than to the median for all women. It is unclear which role play discrimination against women, and which role some female characteristics play in the gender gap in financial inclusion, including women's low levels of financial education, women's aversion to debt and women self-selecting according to more demanding metrics than men do before seeking credit.

And yet, differences in income between men and women do not fully explain the difference in access to housing loans between them. Once results are controlled for observable variables, the gender gap in obtaining a mortgage in LAC shrinks but persists<sup>11</sup>. At all income levels, women had a lower proportion of housing credit ownership than men did at the same income level. That is, a woman would need higher levels of income and education than a man does to achieve the same access to financial services. Likewise, gender gaps are noticeable even when comparing men and women with housing loans. For example, our results indicate that women in the second wealthiest quintile would have the same access to credit as men in the second poorest quintile. Data also show that women have lower rates of possession of housing loan than men do when considering their age, possession of a savings account, and borrowing history. In particular, data shows that younger women are at most disadvantage, likely because their age is associated with the possibility of being pregnant and a more financial instability in the future. This association is, probably, a reflection of the expectation that mothers will increase their time in household chores and lower their rate of participation in waged work.

Now, it is important to underscore the methodological -and conceptual- difficulties of comparing household led the comparison and household led by men. The gender of the household head is not an exogenous characteristic of the household itself, but a defining trait of these households. This is because women who lead households are inherently different from women who do not, and households led by women may significantly differ from those led by men. One reason for this is that women often underreport their de facto headship as they would only self-identify as the head of the household only if there is no adult male present. Likewise, official data tend to record household's assets under men's name, even if these are co-owned. Therefore, most households recorded as FHH are single-headed households, while data on MHH

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<sup>11</sup> Observable characteristics help reduce the gender gap from 26 percent to 11 percent because differences in education level, income, and participation in financial systems (e.g., owning a bank account) account for more than half of the gap.

include households with two working adults, men's assets, and shared assets. Another reason for the complexity of studying FHH is that women who head them may have chosen that role because they have the ability to generate income, as women with lower incomes and more children are more likely to stay with their partners or relatives, even if they desire otherwise. Alternatively, they may have become head of households after inheriting property from their husbands, which makes them older and more affluent than the average women. These situations may explain why FHH report a high incidence of both housing deficit and housing ownership.

Given that intrinsic differences in the characteristics of FHH, another aspect that we began exploring in this paper is if these differences imply a distinct set of preferred housing attributes. When analyzing this aspect among *not poor and yet overcrowded* households in Mexico City, it was clear that FHH were more concerned about the location than about the size of the housing unit they inhabited. This was because - as single parent households- they were heavily dependent on being close to their social network and social services, also -as single women- they were sensitive to the safety conditions in their neighborhoods. These requirements, a well-served, safe neighborhood, implies that housing in their preferred neighborhood is likely to be more expensive than in other areas of the city. Hence, making FHH compensate the extra cost of the desired location with the reduced size of the unit.

A preference for location that makes FHH tolerant of living in overcrowded quarters calls for a revision of housing metrics and the policies they guide. Overcrowding -and not location- is one of the attributes that determines housing deficit. But overlooking the location factor leads to promoting the production of affordable housing that may not serve the needs of the intended beneficiaries. In the case of FHH, larger units would not provide the support they need to manage the burden of household care. Likewise, these households may be unwilling to relocate to improved housing units if they perceived them to be situated in unsafe areas of the city.

To conclude, we need to conceive housing policy as a platform for providing critical, place-based services to households, some of them inside the house and some of them outside of it. Furthermore, we need to move beyond a top-down, normative assessment of adequacy of housing. All in all, there is a pressing need for a more nuanced understanding of housing deficit and housing demand, as well as a deeper comprehension of the diverse housing needs prioritized by different households. It is essential to understand the needs -and constraints- of those who policies want to serve.





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