

HOW DOES HOUSEHOLD INCOME AFFECT ACCESS TO HOUSING?

Begoña Serrano Lanzarote^a, Carmen Subiron Rodrigo^b

^aUniversitat Politècnica de València, Spain

^bValencian Building Institute, Valencia, Spain

How to cite

Serrano Lanzarote, Begoña, and Carmen Subiron Rodrigo. "How does household income affect access to housing?" In *Proceedings of 3rd Valencia International Biennial of Research in Architecture. Changing priorities*. Valencia. 2022. <https://doi.org/10.4995/VIBRArch2022.2022.15211>

ABSTRACT

Accessing to housing, in addition to being a right, should be part of a market sufficiently accessible and diverse so as not to generate excessive expenses for households, which do not allow other necessities to be met or may jeopardise the quality of life.

This article considers the issue of access to housing by analysing the relationship between the average net income per household and the housing rental cost index, with the aim of quantifying the extent to which housing costs affect household income within the Comunitat Valenciana. It focuses especially on the rental system, regarded as the tenure regime prevailing for the most vulnerable households.

A compilation of the available data is undertaken, and with this information, the percentage of the average household income of families that must go to rent payment is calculated, and to what extent this economic effort is excessive. Different income brackets are established to analyse which sectors of the population have trouble accessing a home.

The results obtained suggest that a high percentage of households have to spend over 30% of income on paying rent, and it is in households with lower income in which this percentage soars, emphasising the situation of vulnerability.

Due to a lack of available data, it was not possible to geographically locate the areas with a *strained residential market*, defined by the

Draft Law on the Right to Housing, from which it can be deduced that adding data collection mechanisms to existing ones is necessary to achieve a detailed analysis, essential to implement more effective housing access policies in highly vulnerable areas.

KEYWORDS

Rental housing; rental charge; overstrain economic effort in households; strained residential market areas; rental household income.

1. INTRODUCTION

The European Parliament approved on January 21st, 2021 a resolution (European Parliament Resolution, 2021) calling on the Commission and the Member States to ensure that the right to adequate housing is recognised and enforceable, as a basic human right; to guarantee equal access for all to decent housing; and to include housing sector as a social service of general concern, and not just social housing.

Also, it points out that 25.1% of European tenants that pay market rent spend over 40% of their income on rent and, on average, rents are constantly increasing; therefore it calls on Member States and regional and local authorities to establish legislative provisions,

including clear rental regulations so as to protect the rights of tenants and owners.

Spain is one of the EU countries in which the largest percentage of the population lives in an owned home. It is for this reason that a large part of the economic efforts data obtained from public and private statistics has traditionally focused on learning about the purchase and sale market, at the expense of the rental market. Therefore, it is essential, to have data sources that enable rental housing market to be analysed, in order to set mechanisms that help guarantee access to housing (INE, 2022). Various studies suggest that rental housing has worse economic conditions, and tenants make an overstrain economic effort to pay rent. Rental housing is a limited market in which owners can easily put pressure on prices and raise rents, thus creating what is called a *strained residential market area* that the *Draft Law on the Right to Housing* defines as the average burden of the mortgage cost or rent in the individual budget or in the family unit, plus basic expenses and supplies, exceeds 30% of average income of households, and also those areas in which the rent has risen 5% over the CPI in the last five years.

In order to set adequate policies that guarantee access to housing, it is necessary to know in depth and analyse the rental market, since it is the most affordable and effective way of access to housing for those sectors of population with very unfavorable economic conditions. For all these reasons, an effort must be made to ensure the availability of objective data in the housing rental market, which allow a valid analysis and diagnosis.

2. GOALS

The main goal of this study is to quantify the economic effort that families or cohabitation units must make to access a home, focusing the analysis on the rental system within the Comunitat Valenciana. Specifically, to quantify

the percentage of household income for rent payment of primary residence.

The first purpose is to collect available data on rental prices, as well as that available on net income of households in the Comunitat Valenciana. This way, it will be feasible to determine what type of analysis is currently possible, and what type of data should be collected in the future, in order to analyse the rental housing market effectively and objectively.

According to the available sources, the following goal is to examine the rental housing market to the extent that current data allows: type of tenure according to household income, extra economic effort that families must make according to income, size of the municipality, location and all those available variables that can be relevant.

3. RESULTS

3.1. Available data

Data sources on net household income in the Comunitat Valenciana:

- The National Statistics Institute (INE):
 - Average net income per household by census sections, 2019.
 - Living Conditions Survey (ECV).
Variable HY020: Total household available income (for rent) in the year prior to the survey, by Primary Sampling Unit (anonymised census section), by regions, 2019 and 2021.

Sources of data on housing rental prices in the Comunitat Valenciana:

- The National Statistics Institute (INE):
 - Living Conditions Survey (ECV).
Variable HH060: Current rental price for occupied housing, by Primary Sampling Unit (anonymised census section), by regions, 2019 and 2021.
- The Ministry of Transport, Mobility and Urban Agenda:

- Housing rental index 2015-2020: result of the exploitation of tax sources within the framework of the development of the State system of reference for housing rental prices. Territorial-based data: census section, district, municipality, province and region.

OHsu Study on Housing Rental Prices in the Comunitat Valenciana 2020:

- Reference price: €/m² for studied areas smaller than the municipality, according to three sections of housing surface, and according to five construction periods.

Quarterly report on rental prices of the real estate agency Pisos.com, March 2021:

- Monthly rental price according to number of bedrooms (1, 2, 3, and 4), by province.

Some clarifications are included below in order to provide more information on the origin of the data and thus ease the understanding of the following analyses conducted.

Living Conditions Survey (ECV):

- The Living Conditions Survey (ECV), in English, European Statistics on Income and Living Conditions (EU-SILC) (Eurostat Statistical Office, 2022), belongs to the set of harmonised statistical operations for the EU countries.
- The key objective pursued with the ECV is to have a reference source on comparative statistics of the distribution of income and living conditions in Europe.
- In Spain, the survey has been conducted since 2004 on an annual basis, mainly through personal interviews with the population living in family homes. The data related to household income is based on a combination of the information provided by household respondents and administrative records.
- The sample size is around 13,000 households and 35,000 respondents.

Reference Index of Housing Rental Price:

- The second additional provision of the Royal Decree 7/2019, of March 1st, on urgent measures in the field of housing and rent, establishes the creation of the *State System of reference rates for housing rental prices*. In order to comply with this provision, a Technical Group was set up to develop the system, coordinated by the Ministry of Transport, Mobility and Urban Agenda.
- The development of the system responds to the lack of official statistics on prices, at the state level, as a reference for individuals and the different agents operating in this market.
- The scope is made up of the entire common fiscal territory, and the analysis of data is conducted in a disaggregated way at five administrative levels: census section, district, municipality, province and region.
- The information to be operated, originates from the IRPF model 100 of exercises corresponding to 2015, 2016, 2017, 2018, 2019 and 2020, and the information of the database of the General Directorate of Cadastre.

OHsu Study on Housing Rental Prices in the Comunitat Valenciana 2020:

- This study reflects the real cost of rent in the free market and is based on objective data from the rental finance register in the Comunitat Valenciana. It is built on real data forks of rental prices, grouped according to geographical areas, from which the evolution in the last three years is obtained.
- The monthly rental price in euros per square meter is calculated based on three variables that affect its amount: size of dwellings, construction period of buildings and location of dwellings. Likewise, the evolution of the rental price between 2016 and 2018 is calculated, and four evolution ranges are established: less than 10%, between 10% and 15%, between 15% and 20% and over 20%.

3.2. Rental price analysis

The different sources from official entities provide with similar data on the monthly rental price in the Comunitat Valenciana, in a range between 420 euros per month and 437 euros per month, although it must be considered that data sources are from different annuities.

On the other hand, the data from the real estate Internet portal Pisos.com is much higher, since it is not about final data of rental contracts but advertising data. So, this source is discarded because it does not adjust to the market reality.

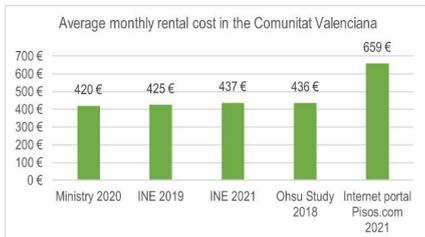


Figure 1. Average monthly rental price €/month in the Comunitat Valenciana, according to different sources

When analysing the data by provinces, only the data from the Ministry and those from the *Ohsu Study on Housing Rental Prices in the Comunitat Valenciana* can be compared. The INE data from the *Living Conditions Survey (ECV)* can only be extracted according to regions, since the primary sampling unit is the anonymous census section.

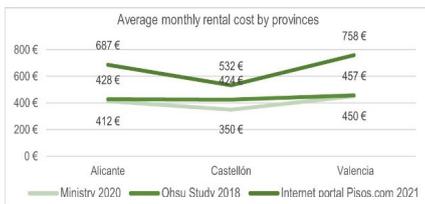


Figure 2. Average monthly rental cost €/month by provinces, according to different sources

3.3. Analysis feasibility of the available data

So as to analyse the extent to which income affects access to housing, and to quantify the overstrain economic effort that families must make to access it, focusing on the rental regime, the first obstacle spotted is the lack of data that allow to disaggregate the income of dwelling owners from those that rent dwellings.

The distribution of household income (ADRH) provided by the INE does not allow a breakdown of household income based on the housing tenure regime. Data is available at census section level, but counting on the result of all households.

If this household income (ADRH) is compared with the rental prices provided by the Ministry, the results are distorted, since the average household income includes the data of the highest incomes that generally own the home. In contrast, the lowest incomes, not being able to access the property, have rental housing.

The only source that enables to directly compare household income with tenancy regime, the rental price, etc., is the *Living Conditions Survey (ECV)* of the National Statistics Institute (INE). The issue lies in the fact that geographically, data can only be obtained at a regional level, since the primary sampling unit is anonymised.

For all these reasons, the analysis below is located in the geographical area of the Comunitat Valenciana, without being able to detail results by provinces or municipalities.

3.4. Analysis on type of housing tenure according to household income.

Based on the data from the ECV 2019 and 2021 within the Comunitat Valenciana, it is possible to analyse how household income affects the type of housing tenure: owned or rented.

Significantly, households with lower incomes are those with a higher percentage of rental system, whereas households with higher incomes tend to owned housing.

- Between 66-69% of rental housing in the Comunitat Valenciana have income \leq 25,000 euros per year.
- In households with incomes over 25,000 euros, the rental cost is between 34-35%, compared to 51-54% of owned housing.
- A rising trend in rent system is evident in the last two years, in households with lower income, whereas in those with higher income, the rising trend is in owned housing.



Figure 3. Type of home ownership according to average household income €/annual. 2019



Figure 4. Type of home ownership according to average household income €/annual. 2021

If the data is analysed by narrower income brackets, interesting results can be obtained in the extreme brackets.

- Households with incomes \geq 40,000 euros represent only 7-8% of rental housing, and

the proportion between ownership and rental has remained stable in the period analysed.

- Households with incomes \leq 15,000 euros represent 32-40% of rental housing, and have significantly risen, whereas home ownership remains stable.

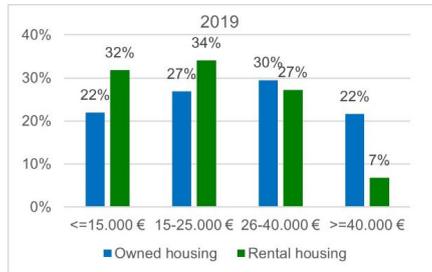


Figure 5. Type of home ownership according to average household income €/annual. 2019



Figure 6. Type of home ownership according to average household income €/annual. 2021

If the average income per household in the Comunitat Valenciana is compared according to the housing tenure regime, a gap of 35-44% is obtained between the income of rental housing with respect to the income of owned housing. Noticeably, this gap has widened for the last two years.



Figure 7. Type of home ownership according to average household income €/annual. 2019 and 2021

If the analysis is focused on income in rental housing, which is the subject of this article, and five economic brackets are established, the following distribution is obtained:

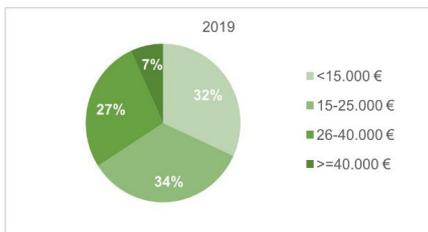


Figure 8. Percentage of rental housing according to average household income €/annual. 2019

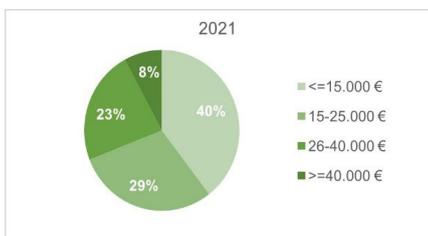


Figure 9. Percentage of rental housing according to average household income €/annual. 2021

3.5. Analysis of the relationship between income per household and rental cost

Based on the data from the ECV 2019 and 2021, the economic effort that households must make to pay the rent is analysed, that is, what percentage of the household income goes to rent payment of primary residence, within the total scope of the Comunitat Valenciana. As mentioned above, the data provided by the available sources does not allow to detail this analysis on a smaller scale, provincial- or municipal.

In addition, this analysis is detailed according to income brackets and other indicators that do appear in the survey, such as the size of municipality and the number of bedrooms in homes.

The *Draft Law on the Right to Housing* sets the *strained residential market areas* when the average burden of the mortgage cost or rent in the individual budget or in the cohabitation unit, plus basic expenses and supplies, exceeds 30 % of the average income in households, and also those areas in which the rent cost has risen by 5% over the CPI for the last five years.

Based on this *Draft Law*, in this study overstrain economic effort caused by rent payment is considered when the percentage of income required is $\geq 30\%$. Due to lack of data, basic expenses and supplies cannot be taken into account.

Economic effort in households to pay rent

Based on data from the ECV 2019 and 2021 in the Comunitat Valenciana, the percentage of household income for paying rent is analysed. In order to quantify this analysis, four groups concerning percentage of economic effort are established: those below 10%, between 10-20%, between 21-30%, and those $\geq 30\%$ of income.

In the following graphs it can be clearly seen that this huge economic effort affects approximately 40% of households, so it can

be concluded that rental costs are currently excessive for most families.

- Between 38-42% in rental households within the Comunitat Valenciana spends $\geq 30\%$ of their income on paying the rent of primary residence.
- In addition, there is a noticeable upward trend of overstrain economic effort, 5 percentage points, in the last two years.

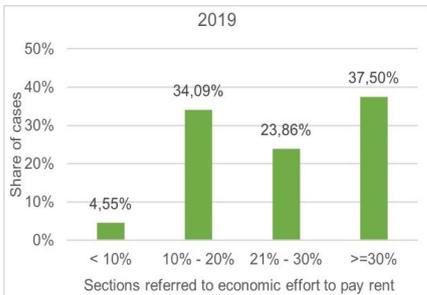


Figure 10. Percentage of households according to sections of overstrain economic effort to pay rent. 2019

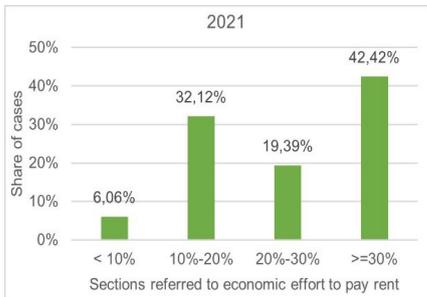


Figure 11. Percentage of households according to sections of overstrain economic effort to pay rent. 2021

Economic effort to pay rent according to household income

The previous section analyses the percentage of household income spent on paying rent cost, considering the overall income. This section aims to assess whether and to what extent this effort to pay the rent depends on household income.

In this section, those sections referred to economic effort are reduced to three: $\leq 20\%$, 20-30%, and $\geq 30\%$. For this, four income ranges per household are established: $\leq \text{€}15,000/\text{year}$; $\text{€}15,000\text{-}25,000/\text{year}$; $\text{€}25\text{-}40,000/\text{year}$; and $\geq \text{€}40,000/\text{year}$.

The results are quite significant, almost all households with lower income spend over 30% to pay the rent, whereas households with higher incomes never reach this percentage of economic effort.

When considering that the average net income per household within the Comunitat Valenciana is around $\text{€}25,000$ per year, it can be confirmed that households below that income are making an excessive economic effort to pay the rent, and those over that income have more reasonable percentage of economic effort.

Between 82-91% of rental households with income $\leq 15,000$ euros spend 30% or more on rent cost, which is an excessive economic effort. Furthermore, the scenario has worsened since 2019.

- Most households, 67-73%, with income over 40,000 euros, spend less than 20% on paying the rent. Likewise, most households, 79-75%, with income over 25,000 euros, spend less than 20% on paying the rent. In both cases, these figures have remained stable for the last two years.
- In the intermediate section $\text{€}15\text{-}25,000/\text{year}$, the distribution is more proportional, equaling in 2021 a third for each economic effort section.

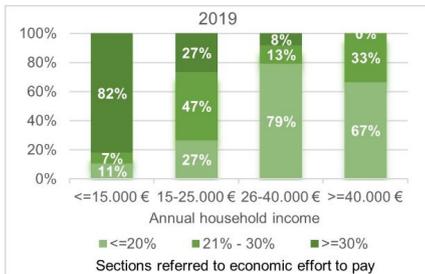


Figure 12. Percentage of households according to brackets of economic effort to pay rent, and according to brackets of household income. 2019

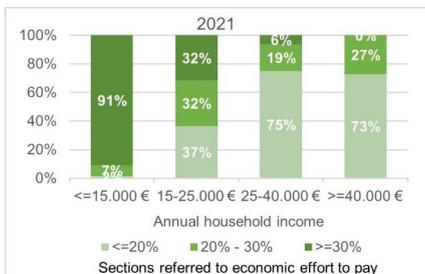


Figure 13. Percentage of households according to brackets of economic effort to pay rent, and according to brackets of household income. 2021

Economic effort to pay rent according to size of municipality

This section aims to analyse how the variable referring to the size of the municipality influences the economic effort in households to pay rent. In this case, only the data from the 2019 ECV can be studied, since in the following years this indicator was not considered in the survey.

The economic effort in paying the rent is greater in large municipalities over 100,000 inhabitants, since almost half of households spend over 30% of income. In municipalities with fewer than 10,000 inhabitants, more than

half of households spend less than 20% on paying rent.

- In municipalities over 100,000 inhabitants, 42% of households spend over 30%, and only 25% spend less than 20%.
- In municipalities with less than 10,000 inhabitants, 55% of households spend less than 20%.
- In municipalities with 10,000 to 100,000 inhabitants, the percentages are similar (32-36%) for the three sections referred to economic effort.

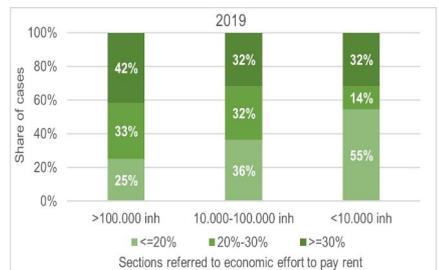


Figure 14. Percentage of households according to sections referred to economic effort to pay rent, by number of inhabitants of municipality. 2019

Economic effort to pay rent according to size of dwellings

This section aims to analyse how the variable referred to the size of dwellings influences the economic effort in households to pay rent. Based on the ECV data, a variable is established to indicate the number of bedrooms. Data from 1 or 2 bedrooms are neglected since the sample size was null or very small. Only the ECV 2019 is analysed.

The results do not show significant data, except for in rental dwellings with 5 or more bedrooms, the economic effort is less. This result may be associated with the fact that larger dwellings are rented by families with higher incomes.

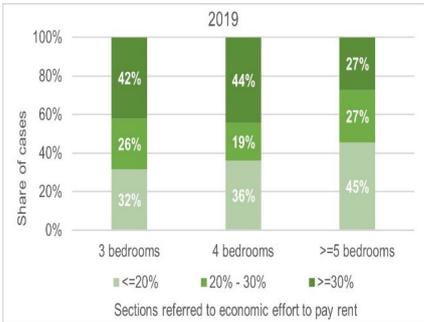


Figure 15. Percentage of households according to sections referred to economic effort to pay rent, according to the number of bedrooms in the dwelling, 2019

3.6. Comparison at European and national level

Economic effort to pay rent according regions

In order to analyse the scenario in the Comunitat Valenciana within a national context, the data published by the *Report on Rental Housing in Spain*, by the Spanish Trade

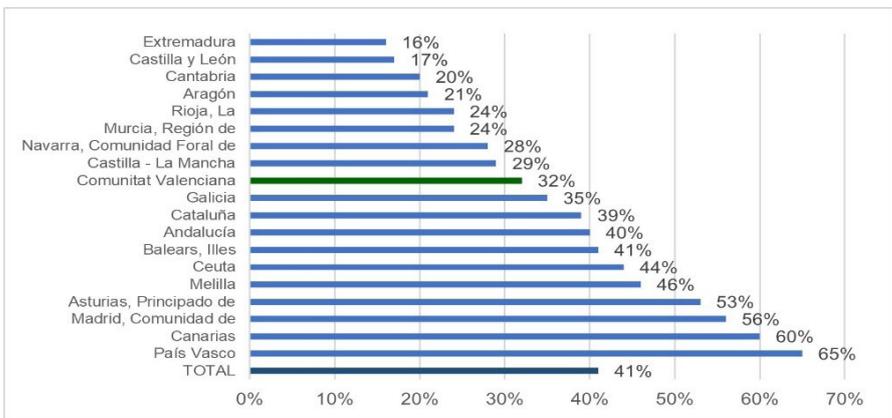
(Comisiones Obreras, 2021), including data from the 2019 ECV.

An analysis is made on the percentage of the population that spends over 30% of income on rent cost, according to regions. The variations with respect to the previously described data prepared by the authors are due to the fact that, in this case, percentages of population are used instead of number of households.

Economic effort to pay rent according to different European countries and tenure regime

The data analysed in this section comes from Eurosta (Eurostat, 2022) the EU Statistical Office. Eurostat is responsible for publishing high-quality statistics and indicators at European level, which enable comparisons to be made between countries and regions.

The *Income and Living Conditions* section covers four subjects: citizens at risk of poverty or social exclusion, income distribution and monetary poverty, living conditions and material deprivation, which are again structured into collections of



Union Comisiones Obreras, is considered indicators on specific matters.

Figure 16. Percentage of population with rental cost over 30% of income, according to regions, in 2019. Source: *Report on Rental Housing in Spain*, by the Spanish Trade Union Comisiones Obreras

The *Living Conditions* section contains indicators related to features and living conditions in households, particular characteristics of the population according to various breakdowns, health and labour conditions, housing conditions and indicators related to child care. In this section the data on housing to be analysed below is collected.

- According to an analysis of the evolution of the excessive overstrain rate in housing rent cost in Spain in the last four years, the result is as follows:

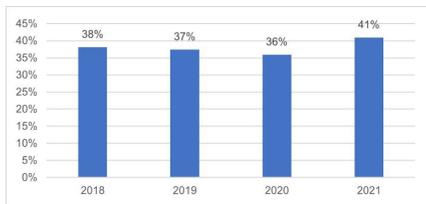


Figure 17. Evolution of overstrain rate in rental cost in Spain. Eurostat 2018-2021

- Distribution of the population, in percentage, according to housing tenure regime, whether owned or rented, in European countries. Spain is above average, with home ownership, 76%, compared to 24% for rent.
- The percentage of the population living in a household with an excess overstrain rate, that is, when total rental housing costs represent more than 40% of the household total disposable income. The cost of housing refers to the monthly rental costs, plus the costs of public utilities resulting from use of water, electricity, gas and heating. According to these figures, in Spain 37% of the population under rental status has an excessive overstrain rate, and it is over the European average.

4. CONCLUSIONS

The *Draft Law on the Right to Housing* determines the *strained residential market area* based on two variables, one in the event that the average economic effort on housing exceeds 30% of household income, and another that considers the evolution of the rental costs in the last five years.

- Currently, no data is available to analyse the economic effort in households to pay the rent in a localised way, census section or municipality, which was the subject of this research.
- As a consequence of not having this data, it is not possible to define the areas with a strained residential market based on household economic effort ($\geq 30\%$) within the Comunitat Valenciana.
- The alternative is to base it on the evolution of rental prices, as proposed in the *OHsu Study on Housing Rental Prices in the Comunitat Valenciana*.
- It is necessary to generate a source of data on the income in households for rent according to census section, comparable with the data currently provided by the *Ministry of Transport, Mobility and Urban Agenda* with the *Housing Rental Index* resulting from the exploitation of tax statistics and with data at the territorial level, census section, district, municipality, province and region.

Through the analysis conducted within the Comunitat Valenciana, the following conclusions can be drawn.

- Household income influences the housing tenure regime. If the stock of primary residence for rent is examined, almost half of it is occupied by households with income that does not exceed 15,000 euros per year, whereas households with incomes over 40,000 euros per year only represent 8% of this market. Furthermore, 66% of tenants live in households with income below 25,000 euros per year.

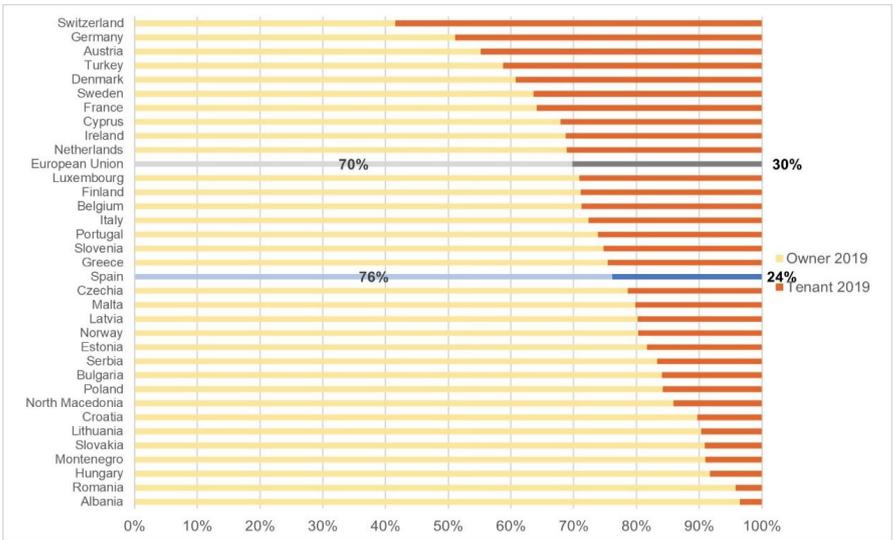


Figure 18. Distribution of the population according to tenure regime in Europe. EU-SILC Eurostat Survey 2019

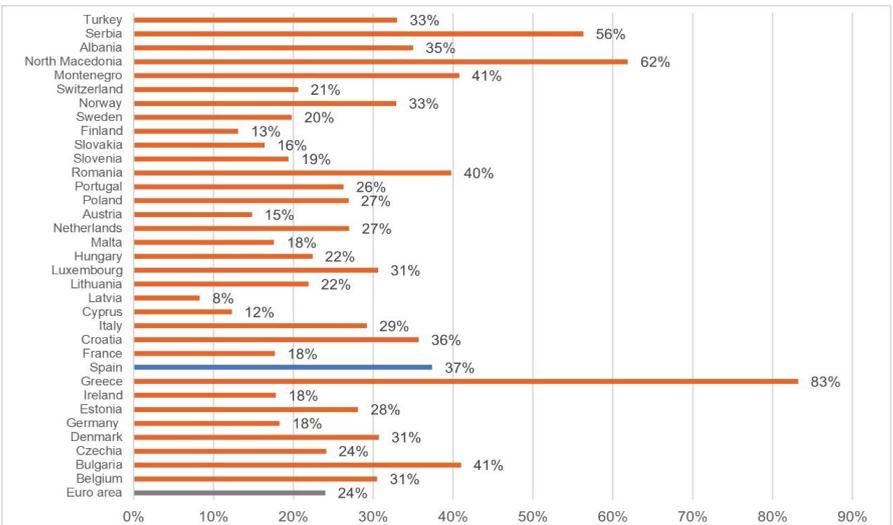


Figure 19. Percentage of the EU population with rental costing cost over 40% of income. EU-SILC Eurostat Survey 2019

- This data is confirmed in the event that the average income is compared according to tenure regime, which reflects a gap of 35-44% between income in rental households with respect to income in owned homes. In addition, this gap has increased in recent years.
- It is noted that a high percentage of households, around 40%, spend over 30% of income on paying rent, that is, they are located in *strained residential market areas*, although they cannot be localised geographically. This percentage has increased by 5 points in the last two years.
- In households with lower income, the economic effort to pay the rent soars, which sets them in a scenario of great vulnerability, since they must use most of their low income to pay rent. Between 80-90% of households with income below 15,000 euros per year spend over 30% on rental costs.
- Most of households with income over the average, 25,000 euros per year, spend less than 20% on rent cost, and only a percentage of 6-8% is regarded as overstrained.
- If the variable of the size of municipalities is considered, the economic efforts of families are greater in municipalities over 100,000 inhabitants. This information could not be cross checked with data from several annuities.

Compared to the rest of regions, the Comunitat Valenciana is slightly below the national average in terms of percentage of population spending over 30% of income on rent cost, 32% in the Comunitat Valenciana, compared to 41% in Spain.

If a parallel is drawn at a European level and the rate of overstrain economic effort is analysed, that is, when the total cost of rental housing is over 40% of the total disposable income in households, Spain is 12 points over the European average, 37%, that is to say, more than a third of the Spanish population living under rental status spends over 40% of income on housing costs.

REFERENCES

- 121/000089 *Draft Law on the Right to Housing*.
February 18th, 2022.
- Atlas of household income distribution (ADRH)*.
Experimental statistics. Technical project.
INE 2021.
- Comisiones obreras. *Report on Rental Housing in Spain*. 2021.
- EU Eurostat Statistical Office, <https://ec.europa.eu/eurostat/web/main/home>.
- European Parliament Resolution, 21st January 2021 (2019/2187(INI)).
- Living Conditions Survey (CVD)*.
- Living Conditions Survey (ECV)*.
- Living Conditions Survey (INE)*.
- State Reference System for Housing Rental Prices*, 2022.
- The National Statistics Institute (INE)*.
Viewer of Housing Rental Prices in the Comunitat Valenciana of the OHSu,
<https://calab.es/observatorio-del-habitat/precio-de-referencia/>