

**Acronym:** WINEQ

**Title:** Increasing wealth inequality in Spain: Who is falling behind and why?

**Code:** SR0403

#### SUMMARY

Housing, savings, investments and other forms of wealth have a huge impact on people's lives. Wealth is an important financial resource, provides social status and serves as a safety net in difficult times. **Wealth takes on an ever larger share of societies' economic resources and has become more unequally distributed across households in Spain;** in particular since the financial crisis. Even though these developments have alarmed academics and policy makers alike, **we know very little about the sources of wealth inequality, about who encounters obstacles toward accumulating wealth and about how wealth inequality intersects with other inequalities such as those based on social background and gender in Spain.** This project aims to answer questions such as: Are changes in wealth inequality driven by changes in home ownership rates, housing values or the value and distribution of other types of wealth? Who accumulates wealth and who enters into debt? Answering these questions is an essential first step toward understanding and addressing rising wealth inequality.

#### 1. INEQUALITY ON THE RISE

In recent years, increasing attention is being paid to the distribution of wealth in society. Wealth provides households with financial resources and works as a safety net during economically difficult times (Pfeffer & Schoeni, 2016). The benefits of wealth are not purely economic as wealthy individuals also live longer; have better health; and enjoy more stable relationships (Eads & Tach, 2016; Thompson & Conley, 2016). Individuals who have more debt than assets have negative wealth and are likely to be among the most disadvantaged in society.

Recently, new comprehensive data collection efforts have revealed that wealth is taking on an ever larger share of societies' economic resources, and that wealth is increasingly held by a small group of people in society (Piketty, 2013; Piketty & Zucman, 2014). This development has been met with alarming concern by academics and the general public alike, as **wealth inequality implies inequality in many other domains of life too.** Spain, which used to have relatively low levels of wealth inequality, has not been exempt from this trend: **Whereas in 2002 the wealthiest 10% of people owned 42% of all wealth in Spain they owned almost 53% by 2014** (Anghel et al., 2018).

Median levels of wealth are relatively high in Spain as compared to other European countries (Lindner, 2015). This implies that the role of wealth as an economic resource is relatively important in Spain too. **Given the importance of wealth as an economic resource in Spain, it is surprising how**

**little is known about basic facts related to wealth and its distribution.** Overall trends in wealth inequality have been well-documented for Spain (Alvaredo & Saez, 2009; Anghel et al., 2018; Bover, 2010), but we still have limited knowledge about important basic questions such as: 1) *What are the sources of increasing wealth inequality in Spain?* 2) *Who is accumulating wealth and who accumulates debt?* These two questions will be central to this project and constitute its two major research lines. A third question central to this project is an overarching one, and will be part of both research lines: 3) *How did wealth inequality and its determinants change during and following the financial crisis?* In the next sections, it will be discussed why each of these questions is relevant and how this project aims to answer them.

### 1.1 THE CHANGING COMPOSITION OF WEALTH AND INEQUALITY

Wealth can be defined as the total value of assets an individual or household owns minus the total debt owed (Killewald et al., 2017). Assets include homes, businesses, stocks, or other real estate, whereas debts include mortgages, loans and credit card debts. Households differ in the extent to which they own certain assets and debts. For many households, assets solely consist of having some savings on a bank account, whereas others have a wide portfolio of assets. The most commonly held form of wealth is housing, whereas other real estate and businesses are forms of assets that are only held by few, primarily wealthy, households (Azpitarte, 2007). Policies differ in the types of assets - and hence the type of households - that they affect. For instance, policies directed at home ownership will affect housing wealth and interest rates will most directly affect returns from savings (Lindner, 2015). **To understand which policies are likely to be effective in reducing wealth inequality, it is essential to know how different types of wealth are distributed across society.** This forms the first main research goal of this project:

**Goal 1:** *Document the wealth components that have contributed to increasing wealth inequality in Spain over time*

Housing takes on the lion's share of total wealth in Spain (Amuedo-Dorantes & Borra, 2018), and it is therefore not surprising that increasing housing prices and access to home ownership have become the most salient wealth-related issue in the public debate in Spain. Is this justified? Azpitarte (2007) documented that housing wealth was a factor reducing wealth inequality in 2002 in Spain. Has this equalizing effect of housing wealth indeed become smaller ever since? Amuedo-Dorantes and Borra (2018) used survey data to follow Spanish households from 2002 to 2011. They found that the total value of all forms of wealth held by households dropped during the crisis period (2008-2011), but that the number of households having other real estate besides the primary residence increased

during the crisis period, possibly due to opportunities in the housing market. What have the consequences been of these changes? **Might investments in real estate other than main residences have driven trends in wealth inequality, instead of home ownership?** Alternatively, is the debate too focused on real estate, and is the distribution of financial wealth becoming more important for wealth inequality? In 2002, only 2.3% of households had negative net worth in Spain (Azpitarte, 2007). In other words, relatively few households were in debt. Has this changed after the financial crisis? Is debt playing an ever more important role in creating wealth differences between households? These sub-questions will be central to this first part of the project and will provide invaluable information on the impact that policies aimed at access to housing, other real estate, financial wealth or debt can have on reducing wealth inequality in Spain.

### 1.2 THE CHANGING PROFILE OF THE WEALTHY AND THE INDEBTED

Wealth inequality leads to a spillover of inequalities to several other domains of life. What makes such inequalities of special concern is that the chances to attain wealth are not equal for each individual in society. A main reason for these unequal opportunities is that wealth can be directly transferred from parents to children. Children of wealthy parents are therefore likely to become wealthy themselves too, whereas children of poor parents are much less likely to become wealthy (Charles & Hurst, 2003). Due to this direct transfer of wealth across generations, **wealth inequality is considered to be particularly unfair: wealth has a huge impact on people's quality of life but the chances of attaining wealth do, to an important extent, not depend on own efforts or merit.** Societies differ in the extent to which a person's wealth depends on characteristics that are more or less fixed at birth ('ascribed' characteristics) or on characteristics attained during a lifetime such as education and income (Killewald et al., 2017). The second goal of this project is to investigate to what extent individual wealth depends on ascribed and attained characteristics in Spain, and whether this has changed over time:

**Goal 2:** *Document the importance of ascribed characteristics, such as ethnicity, gender, place of birth and social background, on the chances of accumulating wealth and avoiding debt in Spain*

**From a policy perspective, understanding how wealth relates to ascribed characteristics will be informative to design policies addressing unequal opportunities to attain wealth.** More generally understanding who is becoming wealthy and who enters into debt will be important to understand wealth inequality in Spain. Increases in wealth inequality observed in Spain might be partly rooted in other existing social disadvantages, and tackling wealth inequality will therefore require taking those into account. **The project will investigate differences in wealth accumulation according to social**

**background, gender, region, urban status, and country of birth.** In this proposal, the first two are highlighted.

#### 1.2.1 SOCIAL BACKGROUND, HOUSING AND WEALTH

Individuals with wealthy parents accumulate more wealth during their own lifetime than others (Charles & Hurst, 2003). The extent to which wealth of individuals depends on social background varies across countries, and is likely affected by the amount of wealth transferred across generations but also by the extent to which social background provides access to resources that enable individuals to generate wealth such as education and occupation (Pfeffer & Hällsten, 2012). **For Spain, there is very little knowledge about how important social background is for a person's wealth.** There are good reasons to believe that social background is particularly important for wealth in Spain. Median household wealth is relatively high as compared to other European countries (Lindner, 2015), which makes the role of wealth transferred from parents to children potentially big. In addition, social mobility in terms of earnings and income is modest in Spain (Cervini-Plá, 2015), suggesting that access to the tools to generate own wealth highly depend on social background too.

That wealth depends, at least to some extent, on social background in Spain thus lies within the line of expectation. But *how much* is a new question this project will answer. Furthermore, it is much less clear whether social background has become more or less important for wealth accumulation over time. On the one hand, the observed increases in wealth inequality might have made transfers from parents to children more unequal. In addition, housing prices have soared in Spain over the last decades (Gonzalez & Ortega, 2012). **To access housing - the major way to accumulate wealth - young people might therefore increasingly have to rely on parental help to buy a house.** On the other hand, Spanish society has transformed in ways that have enhanced social fluidity, particularly for women (Gil-Hernández et al. 2017). For instance, educational expansion makes it easier for individuals from lower social backgrounds to get a university education and therewith accumulate wealth through saving from higher levels of earned income. Hence, **the question whether social background has become more or less important for wealth over time is unclear, and will be answered in this project for the first time.**

**Goal 2.1:** *Document and understand the changing role of social background for access to housing and wealth over time in Spain*

### 1.2.2 GENDER INEQUALITY AND WEALTH

The second ascribed characteristic central to the project is gender. Whether women have access to less wealth than men is a question that has received relatively little attention in international academic research. This is surprising as a handful of existing studies have shown that women have less wealth than men (Ruel & Hauser, 2013; Schneebaum et al., 2018; Sierminska et al., 2010). Gender differences in wealth can be considerable. For instance, Ruel and Hauser (2013) showed for a cohort of respondents from the United States that **never married women had \$94,000 less wealth than never married men when they were around retirement age**. There is some evidence that a gender wealth gap existed in Spain in 2010, but estimates were too imprecise to come to firm conclusions (Schneebaum et al., 2010). The final sub-goal of this project is therefore:

**Goal 2.2:** *Document and understand trends in the gender wealth gap in Spain*

The project will scrutinize the claim that there is a gender wealth gap in Spain and, if so, whether this gap has changed over time. Previous research gives some hints as to why a gender gap in wealth might exist. In general, there are no major differences in how much wealth parents transfer to their daughters and sons (Killewald et al., 2017). But, women accumulate less wealth during their lifetimes due to lower employment rates and the gender earnings gap (Sierminska et al., 2010). Single women are therefore likely to have lower household wealth as compared to single men. Possibilities to accumulate wealth through savings are likely to be particularly low for single mothers who experience obstacles to full-time employment (Lersch et al., 2017; Schneebaum et al., 2018). The project will therefore look at the gender gap in wealth in general, but also zoom in on the gender gap in wealth among specific groups of individuals.

There are different co-existing trends that make it hard to predict whether the gender gap in Spain changed over time. On the one hand, women's labor force participation has increased and the gender gap in earnings declined (Bonhomme & Hospido, 2013). This will have increased the possibilities for women to accumulate own wealth. On the other hand, rates of single motherhood have increased in a pronounced manner over time in Spain (Garriga & Cortina, 2017). The amount of women at risk of having low wealth will therefore have increased. **The project will document changes over time in the gender gap in wealth and will disentangle the contribution of changes in women's earnings and changing household structures to the gender wealth gap.**

## 2. METHODOLOGY

### 2.1 DATA

The following datasets will be used in the project:

**Encuesta Financiera de las Familias (EFF):** The EFF is a survey that has been collected every three years since 2002 from a sample of households representative to the Spanish population (currently the 2014 wave is available, and the 2017 wave has been collected). Wealthy households are oversampled. In each wave, around 6000 households provide information on socio-demographic characteristics, employment, social background, and the value of household assets and debts. A large part of the sample is longitudinal, which means that households are interviewed in different waves (with a maximum of 4 waves). The data have been harmonized by internationally comparative projects such as the Luxembourg Wealth Studies and the Household and Finance Consumption Survey. This will allow comparing results for Spain to those of other countries (e.g. Schneebaum et al., 2018), and find out whether Spain stands out in certain characteristics or whether the challenges encountered by Spain are shared with other European countries.

The EFF has been used to estimate trends in wealth inequality (Anghel et al., 2018), to look at components of wealth in 2002 (Azpitarte, 2007), and the gender gap in wealth in 2010 (Schneebaum et al., 2018). **This handful of previous studies ensures that the analysis envisioned for the project is feasible, but also illustrates that there remain many unexploited opportunities.** These opportunities include studying the changing contribution of wealth components to wealth inequality over time (Goal 1), looking for the first time at the role of social background in attaining wealth by using data on parental occupation (Goal 2.1), and documenting changes in the gender wealth gap over time (Goal 2.2).

**Survey of Health Ageing and Retirement in Europe (SHARE):** SHARE is a cross-national European panel survey that monitors the living conditions of individuals aged 50 or more. The survey runs since 2004 in Spain (latest wave available is 2017) and since 2013 has an extra sample from Girona (leading to an overall sample of above 5000 individuals). Since 2007, individuals are interviewed every two years. The main advantage of the SHARE data is that it contains information on wealth and life histories of individuals, which will allow understanding how employment and family trajectories relate to wealth accumulation (Goal 2.2). The data also provide information on financial transfers to children, which will help understanding whether parents' financial help has become more frequent and more stratified over time in Spain (Goal 2.1).

**EU-Statistics on Income and Living Conditions (EU-SILC):** The EU-SILC is a cross-nationally comparative survey designed to monitor the living conditions of the European population. The survey is not particularly designed to study wealth, but contains information on home ownership and social

background (in 2011 and 2019). Given the large sample size (16,000 individuals in Spain), this data will be used to verify results on accessing the housing market based on social background (Goal 2.1).

## 2.2 ANALYSIS PLAN

The analysis plan is organized according to work packages. Each work package represents a specific type of analysis that will be performed to achieve the goals of the project.

### **Goal 1: The Changing Composition of Wealth and Inequality**

*Work Package 1.1:* Wealth inequality in Spain (2002-2017).

The first work package will concentrate on **replicating, updating and extending the existing knowledge on wealth inequality in Spain** (Alvaredo & Saez, 2009; Anghel et al., 2018; Azpitarte, 2007; Bover, 2010). The main objective is to make sure that the EFF data, which is central to the project, is prepared correctly by the project team and provides results consistent with previous analyses using the EFF. Previously reported trends in wealth inequality will be replicated as well as basic descriptive statistics on the composition of wealth. Beyond replication, trends in wealth components relevant to the project will be provided including real estate other than primary residences, and the share of people in debt. **A novel component of this work package will be to compare estimates from the EFF on wealth inequality to estimates from SHARE** (after selecting comparable samples of individuals aged 50 or older in the EFF) to verify how robust trends in wealth and inequality are across data sources.

A persistent empirical issue in the study of wealth is how to include wealth into statistical models. Given its highly skewed nature, the variable wealth is normally transformed in analysis. The project will in this work package compare results based on various specifications including using the IHS-transformation, the cube root, wealth ranks (for certain questions only), and employing techniques such as quantile regressions. This exercise will inform the rest of the project, but the project will include robustness checks based on the different wealth measures available throughout.

*Work Package 1.2:* Decomposition Analysis of Wealth Inequality

After having prepared and verified the data, the project will perform **decomposition analyses to describe the changing importance of wealth components for wealth inequality**. The major groups of components considered include: net value of primary residence, other real estate, business equity, risky financial assets (which have the potential to be highly dis-equalizing; Lindner, 2015), safe financial assets, and debts. Repeating these exercises for each year with EFF data will give insight into

whether the equalizing effect of housing wealth observed in 2002 has changed over time (Azpitarte, 2007), and whether other real estate, debts and financial assets have become more important over time for the distribution of wealth. There is a variety of decomposition techniques available for this type of analysis and conclusions are not always uniform. The project will therefore rely on a broad set of techniques including the influence function and the additive and Shapley value decomposition methods (Lindner, 2015).

#### *Work Package 1.3:* Longitudinal Analysis of Wealth

Whereas work package 1.2 focuses on repeated snapshots of the wealth distribution, this work package will follow individuals and households across time. Whose wealth has been affected by the financial crisis, who recovered, and who entered into debt? **A major question is how changes in wealth across time depended on the portfolio of households' wealth before and during the crisis.** Previous research has noted that even though the overall value of almost all forms of wealth declined during the crisis, the number of households owning real estate other than the primary residence increased (Amuedo-Dorantes & Borra, 2018). Who made these investments, and how did their wealth develop over time? How might the expansion of households investing in real estate have affected wealth inequality? This work package will rely on a longitudinal analysis of the EFF and SHARE data employing individual fixed-effects models.

#### **Goal 2.1: Social Background, Housing and Wealth in Spain**

##### *Work Package 2.1:* The importance of ascribed and achieved characteristics for wealth

This work package will use information on parental occupation available in the EFF to estimate how the importance of social background for wealth has changed over time. Parental occupation is a commonly used indicator of social background (Jonsson et al., 2009; Weeden & Grusky, 2012). The importance of social background will be compared to that of achieved characteristics such as education and income. Two empirical approaches will be followed. Firstly, parental occupation will be categorized into a small set of social classes (Weeden & Grusky, 2012). The association of parental social class with wealth will be estimated for each EFF wave, and subsequently individual changes in wealth during and after the crisis will be estimated using individual fixed-effects models. Secondly, Theil-decomposition techniques will be used to divide wealth inequality in each wave into a part due to inequality between groups (defined based on parental class/occupation) and a part due to inequality within groups (Breen & Salazar, 2011). This type of analysis will give an overall estimate of changes in the importance of parental social class for wealth inequality in Spain. The same two types



of analysis will be performed for own educational attainment and income in order to document changes in the importance of achieved characteristics over time.

*Work Package 2.2:* Access to housing, financial help from parents, and social background

This Work Package will dive deeper into the mechanisms through which social background is related to wealth accumulation. The intergenerational modules of EU-SILC collected in 2011 and 2019 (available in Autumn 2020) contain information on childhood conditions including the occupation of the parents, education of the parents, home ownership in the family of origin, and family structure. Even though there is no information on respondent wealth, there is information on home ownership. Given the large sample of the EU-SILC and the rich background information, this data will give new insights into how the associations of different social origin characteristics with home ownership changed over time in Spain. Has social background become more important for home ownership between 2011 and 2019? The SHARE data will be used to complement this analysis. Information on financial help to children will allow estimating whether the financial help given by parents to their children became more stratified by parental socioeconomic characteristics over time (2004-2017).

## **Goal 2.2: The Changing Gender Gap in Wealth**

*Work Package 2.3:* Gender Differences in Wealth in Spain 2002-2017

**This part of the project will rely on both the EFF and SHARE data to document trends in the gender wealth gap over time.** Differences in mean and median wealth will be documented for various sub-groups, most prominently single individuals and single parents. Quantile regressions will be used to estimate differences at various parts of the wealth distribution as previous research has shown that women are especially unlikely to be at the top of the wealth distribution (Schneebaum et al., 2018). In a first step of the project, such quantile-regressions will be estimated for each wave and dataset separately. In a second step, individual fixed-effects models will estimate how the wealth of individual women developed across the period studied as compared to men.

*Work Package 2.4:* Life trajectories, Gender and Wealth

In this Work Package, **the project will zoom in on a particular situation that puts women at risk of low wealth: separation.** First, the SHARE data on retrospective life histories will be used to estimate how life trajectories are related to accumulated wealth at the time of the survey. How do the past experience of separation and parenthood relate to the wealth of women and men by the time they are 50 or older? Second, an event-based approach will be taken to directly document the impact of a separation on gender differences in wealth, in particular when there are children present. Individual

wealth decreases following separation (Addo & Lichter, 2013). As children often keep residing with their mothers, women's possibilities to accumulate wealth become more limited after separation in particular. Individual-fixed effects models explaining changes in wealth will investigate to what extent separation is indeed a trigger of wealth losses, and possibly entrance into debt. Differences between separation from cohabitation and marriage will be studied as legal regulations to split wealth after separation often apply to marriages, but not always to cohabiting unions. **Separations from cohabitation might therefore be related to greater gender differences in how wealth is split, and increases in the levels of cohabitation might make this an ever more relevant factor.**

## 2.2 DATA MANAGEMENT PLAN

*Data Summary:* The project relies on the analysis of already existing and available data sources (i.e. EFF, EU-SILC, SHARE). All data sources are survey data of moderate size and can be either downloaded directly from the survey website (EFF) or after applying for access as a researcher (SHARE & EU-SILC).

*FAIR Data:* All code used for data management and analysis will be stored in a project account on the website of the Center for Open Science (<https://osf.io/>). Files will be named using the creation date of each version (e.g. 191002\_code.xxx). These replication files will be made public on the project website once results are final, allowing interested parties to exactly replicate the results of the project.

*Allocation of resources:* There are no direct costs related to making the data FAIR. The data technician will be responsible for the management of code and the OSF account. Costs related to depositing data are covered by the Host Institution.

*Data Security:* The EU-SILC and SHARE data will be stored by the Data Bank Unit of the Host Institution on servers with restricted access, will be password protected, and have the external access ports blocked. Back-up files of code used will be made at the Host Institution's depository and uploaded to the online OSF account.

*Ethical Aspects:* All data used by the project is anonymized.

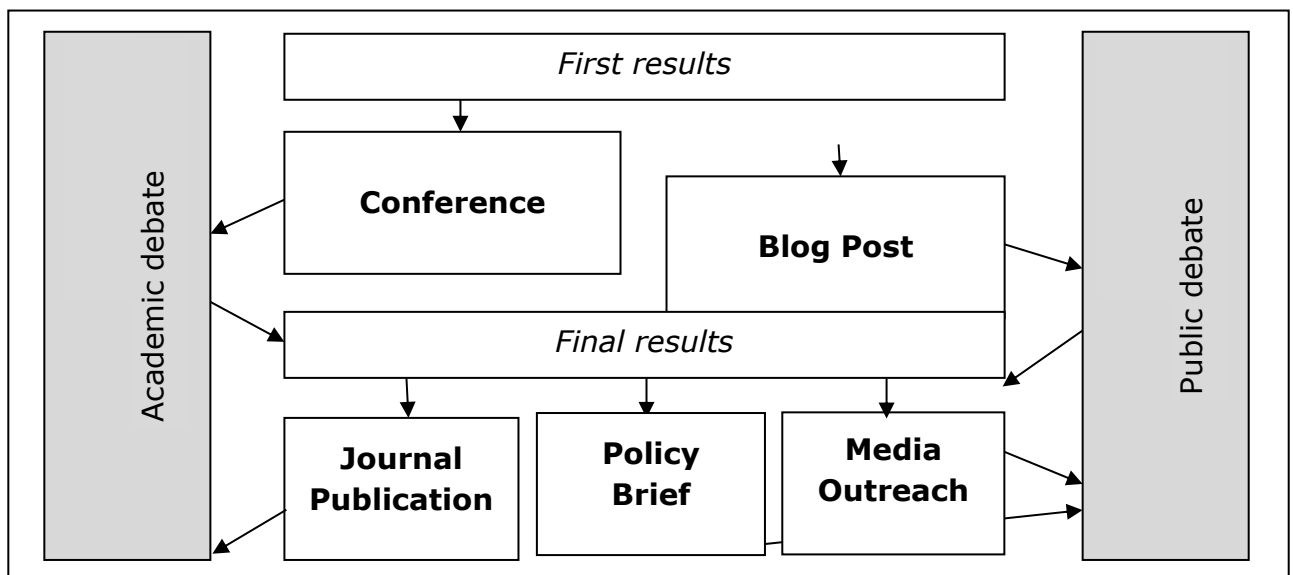
## 2.3 DISSEMINATION AND COMMUNICATION STRATEGY

The dissemination of results will be aimed at both the research community and the general public. The project will follow a structured strategy, displayed in Figure 1, in order to facilitate the incorporation of feedback from the academic community and public debate into the project. After the generation of each set of key results (corresponding to the goals of the project outlined in

Section 1) a first communication round will take place. In this round, **conference presentations** will be given to academic audiences **and less technical blog posts** will be written for broader audiences. Both strategies will allow for feedback to be incorporated in the work. Once matured, results will be communicated in a second round through publications in academic journals, policy briefs, **dissemination articles** (at least one for the dissemination channels of "la Caixa" Banking Foundation), **knowledge-brokering activities** and by approaching media outlets. Rather than publishing many articles, **the project will produce various articles to be published in top academic journals indexed by Scopus or Web of Science**. All publications will be available through open access (either through self-archiving, or publication in open access journals).

Policy-makers will be targeted through briefs on specialized websites such as Population Europe. To facilitate transfers of knowledge generated, **a website will be created with non-technical summaries of all findings of the study**, freely available pre-print versions of all papers, replication files, and links to media coverage of the project's results. Finally, **short videos will be created for general audiences** where the main debates the project contributes to are explained, as well key results of the project. This video material will be available on the website, spread through social media and sent to media outlets in order to make the findings of the project easily accessible.

**Figure 1.** Dissemination and communication strategy



## REFERENCES

Addo, F. R., & Lichter, D. T. (2013). Marriage, marital history, and black–white wealth differentials among older women. *Journal of Marriage and Family*, 75(2), 342-362.

- Alvaredo, F., & Saez, E. (2009). Income and wealth concentration in Spain from a historical and fiscal perspective. *Journal of the European Economic Association*, 7(5), 1140-1167.
- Amuedo-Dorantes, C., & Borra, C. (2018). Emerging wealth disparities after the storm: Evidence from Spain. *Review of Economics of the Household*, 16(4), 1119-1149.
- Anghel, B., Basso, H., Bover, O., Casado, J. M., Hospido, L., Izquierdo, M., ... & Vozmediano, E. (2018). Income, consumption and wealth inequality in Spain. *SERIEs*, 9(4), 351-387.
- Azpitarte, F. (2008). The household wealth distribution in Spain: The role of housing and financial wealth. *Hacienda Pública Española*, 194(3), 65-90.
- Bonhomme, S., & Hospido, L. (2013). Earnings inequality in Spain: new evidence using tax data. *Applied Economics*, 45(30), 4212-4225.
- Bover, O. (2010). Wealth inequality and household structure: US vs. Spain. *Review of Income and Wealth*, 56(2), 259-290.
- Breen, R., & Salazar, L. (2011). Educational assortative mating and earnings inequality in the United States. *American Journal of Sociology*, 117(3), 808-843.
- Cervini-Plá, M. (2015). Intergenerational Earnings and Income Mobility in Spain. *Review of Income and Wealth*, 61(4), 812-828.
- Charles, K. K., & Hurst, E. (2003). The correlation of wealth across generations. *Journal of Political Economy*, 111(6), 1155-1182.
- Eads, A., & Tach, L. (2016). Wealth and Inequality in the Stability of Romantic Relationships. *The Russell Sage Foundation Journal of the Social Sciences*, 2(6), 197-224.
- Garriga, A., & Cortina, C. (2017). The change in single mothers' educational gradient over time in Spain. *Demographic Research*, 36, 1859-1888.
- Gil-Hernández, C. J., Marqués-Perales, I., & Fachelli, S. (2017). Intergenerational social mobility in Spain between 1956 and 2011: The role of educational expansion and economic modernisation in a late industrialised country. *Research in Social Stratification and Mobility*, 51, 14-27.
- Gonzalez, L., & Ortega, F. (2013). Immigration and housing booms: Evidence from Spain. *Journal of Regional Science*, 53(1), 37-59.
- Jonsson, J. O., Grusky, D. B., Di Carlo, M., Pollak, R., & Brinton, M. C. (2009). Microclass mobility: Social reproduction in four countries. *American Journal of Sociology*, 114(4), 977-1036.
- Killewald, A., Pfeffer, F. T., & Schachner, J. N. (2017). Wealth inequality and accumulation. *Annual Review of Sociology*, 43, 379-404.
- Lersch, P. M., Jacob, M., & Hank, K. (2017). Parenthood, gender, and personal wealth. *European Sociological Review*, 33(3), 410-422.
- Lindner, P. (2015). Factor decomposition of the wealth distribution in the euro area. *Empirica*, 42(2), 291-322.

- Pfeffer, F. T., & Hällsten, M. (2012). Mobility regimes and parental wealth: The United States, Germany, and Sweden in comparison. *SOEPpapers*, 500-2012.  
[https://www.diw.de/documents/publikationen/73/diw\\_01.c.411432.de/diw\\_sp0500.pdf](https://www.diw.de/documents/publikationen/73/diw_01.c.411432.de/diw_sp0500.pdf)
- Pfeffer, F. T., & Schoeni, R. F. (2016). How wealth inequality shapes our future. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, 2(6), 2-22.
- Piketty, T. (2013) *Capital in the Twenty-First Century*. Harvard University Press
- Piketty, T., & Zucman, G. (2014). Capital is back: Wealth-income ratios in rich countries 1700–2010. *The Quarterly Journal of Economics*, 129(3), 1255-1310.
- Ruel, E., & Hauser, R. M. (2013). Explaining the gender wealth gap. *Demography*, 50(4), 1155-1176.
- Schneebaum, A., Rehm, M., Mader, K., & Hollan, K. (2018). The gender wealth gap across European countries. *Review of Income and Wealth*, 64(2), 295-331.
- Sierminska, E. M., Frick, J. R., & Grabka, M. M. (2010). Examining the gender wealth gap. *Oxford Economic Papers*, 62(4), 669-690.
- Thompson, J., & Conley, D. (2016). Health Shocks and Social Drift: Examining the Relationship Between Acute Illness and Family Wealth. *The Russell Sage Foundation Journal of the Social Sciences*, 2(6), 153-171.
- Weeden, K. A., & Grusky, D. B. (2012). The three worlds of inequality. *American Journal of Sociology*, 117(6), 1723-1785.