Intergenerational Wealth Mobility in France over the 20th Century[1]

February 2020

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This paper estimates the intergenerational wealth correlation between two generations for cohorts covering the 20th century. First, we find that the probabilities for the second generation to belong to top wealth groups or to be homeowner increase with the wealth of the parents. Such effects are persistent over the life-cycle. Second, the relative effect of parental wealth is increasing across top wealth groups. Third, the intergenerational correlation in homeownership status is increasing for more recent cohorts. Fourth, the effect of parental wealth on the probability to belong to top wealth groups follows an inverted U-shape over the life-cycle. Fifth, the higher in the wealth distribution, the more important is the role of the receipt of gifts and inheritances and the occupation of the fathers: they fully explain the intergenerational correlation regarding the probability to belong to the top 5%. The education of the household plays an additional role for the top 50%.

[1] We thank Sylvie Tarrieu for her excellent research assistance and Barbara Castillo Rico for her great help harmonizing the first waves of the French Wealth Survey at an early stage of this project. We would like to thank Françoise Drumetz for helpful comments. This work is supported by a public grant overseen by the French National Research Agency (ANR) as part of the "Investissements d'avenir" program (reference: ANR-10-EQPX-17 – Centre d'accès sécurisé aux données – CASD). This paper reflects the opinions of the authors and does not necessarily express the views of the Banque de France.
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The relative importance of wealth has sharply increased in advanced economies. The U.S. as well as European countries have experienced a sharp rise in the wealth to income ratio from the 1970s onwards (Piketty and Zucman, 2014). This trend is associated with a rise in the share of inherited wealth in aggregate wealth (Alvaredo et al., 2017). Regarding this two trends, France is clearly not an exception.[2] In a context of slower growth, the relative importance of wealth, and particularly of past accumulated wealth seem to move on a rising curve.[3] While such an increase should not necessarily be viewed as negative in itself, it raises questions about the determinants of wealth concentration and the persistence of inequality across generations (Piketty, 2000). Regarding this latter issue, the correlation of wealth across generations may be driven by various factors. It may reflect income correlation. As shown by the standard theory of income mobility (Becker and Tomes, 1979, 1986), such an intergenerational correlation in incomes may result from parental investment in human capital and from correlation in abilities across generations. The intergenerational wealth correlation may also be explained by direct transfers of wealth (bequests and inheritances) or by the transmission of preferences (risk attitudes, patience) related to saving behaviour. While the intergenerational correlations in income or education have been widely studied[4], the empirical work on the intergenerational correlation in wealth is more recent.[5] It aims at estimating the elasticities between the wealth of two or more generations and at assessing the role played by some specific channels (earnings, education, intergenerational transfers, genetics, etc.). For France, to our knowledge, only two papers study intergenerational wealth correlation (Arrondel and Grange, 2006; Bourdieu et al., 2017) and they cover the 19th century and the beginning of the 20th century.

Our contribution to this literature is twofold. First, we estimate the intergenerational wealth correlation in France between two generations for cohorts born all over the 20th (from before 1922 to 1983). We consider the wealth of the second generation at several life-cycle positions. Second, we assess the role played by direct transfers of wealth (receipt of gifts and

[2] In France, after a strong decrease beginning in the early 20th century, the wealth to income ratio rose from 2 to 6 between 1950 and 2010. The share of inherited wealth went from 40% in the 1970 to 60% in 2010. See also Garbinti et al. (2018, forthcoming) for income and wealth inequality developments in France.

[3] In the classical Harrod-Domar-Solow formula, the wealth to income ratio is determined as the ratio between aggregate saving rates (net of capital depreciation) and the income growth rate, pointing out that the lower economic growth, the stronger the multiplicative effect of accumulation on the wealth to income ratio.

[4] e.g. Auten et al. (2013), Chetty et al. (2014), Chetty et al. (2017), Corak et al. (2014), Lee and Solon (2009), Long and Ferrie, (2013), Olivetti and Paserman, (2015).

[5] See Charles and Hurst (2003), Arrondel and Grange (2006), Hansen (2014), Pfeffer and Killewad (2015), Bourdieu et al. (2017), Adermon et al. (2018), Boserup et al. (2017), Fagereng et al. (2018) or Majlesi et al. (2019).

inheritances) and human capital investment in explaining this intergenerational wealth correlation at various ages. To do so, we study two outcome variables related to wealth accumulation of the second generation: i) the probability to be a homeowner[6] before a given age and ii) the probability to belong to top wealth groups[7] (Top 50%, top 25%, top 10%, and top 5%, for a given age group within each cohort).

Our analysis is based on the French Wealth Survey conducted by the National Statistical Institute.[8] Like the SCF for the US, the French Wealth Survey aims at measuring wealth at the household level. Interestingly, the survey also collects information on whether the parents of the household (i.e. for both the reference person and his/her partner) were owner of their main residence when he/she was 14 years old and if they were owners of other kinds of real estate. We document that in the case of France, the ownership of the main residence as well as other real estate properties can be viewed as a relevant indicator for the wealth levels for all cohorts. It allows us to consider three wealth groups within the population: households whose parents did not own any real estate property, households with parents who did own their main residence without any other real estate property (defined as "homeowners") , and households with "wealthy" parents (with other real estate properties in addition to their main residence). We are thus able to link the wealth of the second generation to the wealth of the parents thanks to these wealth indicators.

Our main results are as follows:

First, we find statistically significant intergenerational correlations and obtain the expected gradient in the conditional probabilities depending on the wealth of parents: the conditional probabilities to be homeowner or to belong to top wealth groups is higher for households whose parents where owners of any other real estate properties in addition to their main residence compared to those who were only owners of their main residence, the latter being larger than the one obtained for households with non-homeowner parents.[9] Such a result holds for all age groups and points out to a persistence of the effect of parental wealth over the life-cycle.

[6] We then also contribute to the literature focusing on the intergenerational correlation in homeownership status (e.g. Jenkins and Maynard, 1983; Smits and Mulder, 2008; Spilerman and Wolf, 2012; Mulder et al., 2015, Blanden and Machin, 2017).

[7] Such an approach allows accounting for non-linearities in the intergenerational wealth correlation at the top of the distribution.

[8] We use all existing waves of this survey, i.e. 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

[9] For instance, the probability to be homeowner before the age of 40 is increased by 27 percentage points (resp. 35 percentage points) for households whose parents were homeowners (respectively wealthy) compared to households from the same cohort (1973-1977) whose parents did not own any real estate property.

Second, the relative effect of parental wealth is increasing across top wealth groups, and this increase is sharper for households with wealthy parents. The probability to belong to the Top 50% for the 40 to 49 years old, is about 50% higher with homeowner parents (respectively 74% with "wealthy" parents), compared to households whose parents did not own any housing assets. These relative effects reach respectively about 210% and 520% on the probability to belong to the Top 5%.

Third, the intergenerational correlation in homeownership status is significantly increasing for more recent cohorts. In other words, while France was experiencing a global increase in homeownership rate over the 20th century, the homeownership rate of households of the second generation whose parents were homeowners increased more than the homeownership rate of people whose parents did not have any real estate property.

Fourth, there are some differences in the intergenerational wealth correlation over the life-cycle of the second generation. In line with the intergenerational wealth elasticities obtained by Boserup et al. (2017) for Denmark, we find a U-Shaped pattern over the life-cycle regarding the effects of the parental wealth on the probability to belong to the Top 50%. However, the relative effect of parental wealth on the probability to belong to higher Top percentiles (top 25%, top 10% or top 5%) follows an inverted U-shape over the life-cycle, with larger effects obtained for people aged between 40 and 49 years.

Fifth, the correlation between parental wealth and the probability to belong to top wealth groups turns out to be largely explained by the receipt of intergenerational transfers and the human capital of the parents[10], while the education of the second generation only appears to be important for lower levels of wealth (Probability to belong to the top 50%). Regarding the probability to belong to the top 5%, in most cases, the correlation is fully explained and becomes non-statistically significant when controlling both for having received gifts and inheritances and for the occupation of the fathers of the reference person and partner. For the top 50%, education of the reference person and partner play an additional role in explaining the intergenerational wealth correlation. These three types of variables (receipt of intergenerational transfers, occupation of the parents, education of the reference person and partner) explain about 25% to 50% of the gross correlation for the top 50%.

[10] Since we do not have a direct measurement of parental education we use the occupation of the parents a proxy for their human capital.

Altogether, our results point out an important and increasing role of parental wealth in wealth accumulation. They are also in line with the evidence from the literature highlighting the concern of a decreasing intergenerational mobility over time, especially for France.[11]

This paper is organized as follows. Section 2 presents the data we use and some descriptive statistics. Our baseline estimates of the intergenerational correlations are presented in Section 3. Section 4 investigates the role of intergenerational transfers and human capital in explaining the intergenerational wealth correlation. Section 5 concludes.

2. Data

2.1. Sources and definition

Our empirical analysis is based on the French Wealth Survey conducted by the French Statistical Institute (INSEE). Like the SCF for the US, the French Wealth Survey aims at measuring wealth at the household level. It collects household level detailed information on assets (financial, housing and professional assets) and liabilities, family composition, socio-economic characteristics and intergenerational transfers. The survey is a cross-sectional dataset.[12] We use all waves of the French wealth survey. These waves refer to the following years: 1986, 1992, 1998, 2004, 2010, 2014, and 2017. In each wave, the weighted sample provides country representative figures for asset holdings and wealth.[13]

Wealth is measured at the household level. The survey also provides retrospective information regarding the homeownership status of the household (i.e. the year when the household acquired its main residence), while wealth is measured at the time of the survey. Using all

[11] Alvaredo et al. (2017) show that the share of inherited wealth in aggregate wealth has increased in European countries and in the United States. For France, it went from 40% in the 1970 to 60% in 2010. Moreover, the probability to be part of top wealth groups has decreased for top labour earners which also mirrors an increasing role of past wealth in wealth accumulation (Garbinti et al, forthcoming). Regarding homeownership, Bonnet et al. (2018) show that the apparent stability of homeownership among young households from the 1970s hides a growing disparity between the best and the least well-off and that family support (in particular through gifts and bequests) plays a significant role in this diverging path for recent years. Spilerman and Wolf (2012) estimate the waiting time from marriage to homeownership based on the use of one wave of the same survey we use (the 1992 wave). In line with our result, they find that couples with low parental wealth are less likely to have made the transition to homeownership status

[12] A panel component started in 2014 and is only available in the 2014 and 2017 surveys. The number of panel households by cohorts is however too limited for analyzing the intergenerational wealth correlation over the 20th century using this panel component.

[13] The financial assets at the top of the distribution may be underestimated in this type of surveys because of offshore wealth or of a covering of the very top of the distribution that, despite the oversampling methods, may not be precise enough (see Bricker et al. (2016), Vermeulen (2018) or Garbinti et al. (forthcoming) for a discussion and for other references).

waves of the survey, we are able to study two outcome variables related to wealth accumulation: i) the probability to be homeowner (before a given age, from before 30 years old to 60 years old) and ii) the probability to belong to top wealth percentiles (Top 50%, Top 25%, Top 10%, and Top 5%, for a given age group within each cohort). We choose the lower age bound (30 years old) in order to preserve the sample size, and the upper is limited to 60 years old to abstract from specific wealth disaccumulation behaviours that may be specific to older ages.[14]

To study the intergenerational wealth correlation, we take advantage of a specific feature of the French wealth survey: it collects information on whether the parents of the household (i.e. for both the reference person and his/her partner) were owners of their main residence when she/he was 14 years old and if they were owners of other kinds of real estate. We are thus able to link the wealth of the second generation (through its wealth rank and its homeownership status) to the wealth of the parents (thanks to wealth indicators such as real estate or main residence ownership). The survey also provides retrospective information regarding the formation and duration of marital relationships (for how long individuals live together, if they have been in a couple with someone else before), the inheritances and gifts received (and when) both for the reference person and the partner as well as their education.

2.2. Sample

Sample definition

These seven waves of the French wealth survey cover households where the reference person was born from before 1922 to 1993. At the time of the survey, we observe older households for older cohorts; while for more recent cohorts our sample includes only young households (see Table 1). While we do not need specific restrictions to study wealth ranks (that are assessed at the time of each survey), in order to study the probability to be homeowner before various ages, we restrict our sample to households where the reference person is born before 1987, so as to be able to have enough observations with reference persons aged 30 years old in the last wave (2017) of the survey. We then define cohorts based on the year of birth of the

[14] And in particular to transmission behaviors that may occur in order to avoid inheritance taxes (see for instance Garbinti and Goupille-Lebret 2018 for a literature review).

reference person and group them into 4-years cohorts.[15] We have then more than 3,400 observations for cohorts born before 1977 (Table 1). This number of observations decreases for more recent cohorts, typically the more recent cohort (1983-1987) is only observed in most recent surveys (from 2004 onwards).

Some descriptive statistics

On average, 58% of the reference persons live in couple when surveyed. The share of couples varies with the age of the reference person. It increases from 54% for households where the reference person is aged between 20 and 30 years old to about 70% for the 31-40 years old and then decreases for older households (58% above 60 years old, see Table A1 in Appendix A).

[INSERT TABLE 1]

Regarding the evolution over time of education attainment (Figure 1.a and Figure 1.b) of the reference person and of her father and the occupation of the reference person (Figure 2), our sample reflects well the development of the French economy (see Bauer et al., 2018, Figure 2), with a decreasing share of farmers, craftsmen and small proprietors, and increasing education levels over the 20th century.[16]

[INSERT FIGURE 1a and FIGURE 1b]

[INSERT FIGURE 2]

2.3. Homeownership status and ranks in the wealth distribution

We briefly present here some elements to confirm that homeownership status is a good proxy to study the position in the wealth distribution.

First, according to the National Statistical Institute, the percentage of households owning their main residence has increased from 43% in 1968 to 58% in 2014 (see graph B.1 in Appendix B). After decades of continuous growth, the homeownership rate stabilized around 50% in the

[15] Ideally it would have been more interesting to not group any cohort but this choice would have made our point estimates very imprecise due to the size of our sample. 4-years cohorts appear as a good trade-off between no regrouping and regrouping over a longer period (10 years for instance) that would have considerably restricted the number of cohort-groups studied.

[16] The larger share of inactive people or people who never worked for the most recent cohorts simply reflects that they are younger at the time of interview and may not have fully completed their education.

80s, and then increased again during the 90s until the 2008 crisis where it levelled at 58%. Since then, it has remained stable. Despite this increase in the homeownership rate, housing assets could be viewed as a household wealth level indicator, which allows to discriminate between poor people (with low wealth and no housing assets) and richer people with more assets including housing assets. Garbinti et al. (forthcoming) document that throughout 1970-2014, the share of housing assets in household net wealth starts to be positive around the 20th-30th percentiles.[17] Housing assets are the main form of wealth for the middle of the distribution. At the top of distribution, financial assets are the dominant form of wealth while households hold also other real estate properties.

Second, such a pattern is confirmed by our data. We compute the household wealth ranks in the wealth distribution in each survey for households without any real estate properties, households owning their main residence but without any other real estate properties ("homeowners") and households who also own other real estate properties in addition to their main residence (defined as "wealthy" households).[18] Figure 3 displays the mean and median ranks for households aged between 40 and 49 year old by cohorts. For all cohorts, we observe the highest mean and median ranks for households who own other real estate properties in addition to their main residence, and the lowest ranks for non-homeowners (and, as expected, homeowners occupy an intermediate position). The mean and median ranks of each category of households are quite stable across cohorts: around the 20^{th} percentile for households without any real estate property, between the 50^{th}-65^{th} percentiles for homeowners, and above the 75^{th} percentile for "wealthy" households. Such a pattern holds throughout the distribution (p 25 and p75) and is observed for all age groups and all cohorts (See Table A3 in Appendix A). We are thus confident about the fact that the ownership of the main residence as well as other real estate properties can be viewed as a relevant indicator for the wealth level which allows us to consider three wealth groups within the population.

[INSERT Figure 3]

[17] The bottom 30% of the distribution own mostly deposits.
[18] There is an additional group within the population: the households who do not own their main residence and own other real estate properties. They represent only 2% and are not reported in the Figure 3.

2.4. Wealth of the parents during childhood

The information regarding the wealth of the parents during childhood is elicited with the following questions: "*During the childhood of [the reference person], were the parents [of the reference person] owners of:*

- *their main residence (Yes/No)*
- *any other real estate properties (Yes/No)".*

A similar question is also asked for the partner of the reference person. We are thus able to account for the wealth for the first generation for all cohorts. We use these questions to define the wealth level of the parents. We split the population into four categories:

- parents without any real estate properties (reference category);
- parents owning their main residence without any other real estate property (defined as *Homeowners parents*);
- parents owning other real estate properties in addition to their main residence (defined as "*wealthy" parents*);
- a residual category (defined as *"other")* for parents that were owning other real estate properties without holding their main residence (2% of the sample, see Table 1).

For couples, we define the parents as "homeowner"/"wealthy" if the parents of at least one member of the couple were "homeowner"/"wealthy".

[INSERT FIGURE 4]

In line with the increase in the overall homeownership rates, the share of households for whose one of the parents owned the main residence (without any other properties) increases from about 37% to 56% across the cohorts, while the share of "wealthy" parents remain quite stable around 20% (Graph 4). Both the shares of "homeowner parents" and of "wealthy parents" tend to be similar for the reference person and for the partner, which may indicate some assortative mating in terms of wealth.[19]

[19] We leave the investigation of assortative mating in terms of wealth for further research. For France, Frémeaux and Lefranc (2017) document a strong degree of assortative mating in terms of occupation, education and earnings.

3. Intergenerational wealth correlation: baseline results

We estimate the intergenerational correlation by focusing on two outcomes. First, we estimate the correlation between the homeownership status of the second generation and the parental wealth (either they are homeowners or "wealthy" according to our terminology). Second, we assess the probability to belong to top wealth groups (top 50%, top 25%, top 10% and top 5%) for the second generation depending on the wealth of their parents.

3.1. Homeownership status

Figure 5 displays the homeownership rate at various ages of the second generation by cohort depending on wealth status of the first generation: non-homeowner parents, homeowner parents and wealthy parents. Whatever the age and the cohort, households whose parents did not have housing assets exhibit the lowest homeownership rate, while the largest homeownership rate is obtained for households with wealthy parents. It suggests that such differences in homeownership rates across the wealth status of the parents are important and persistent over the life-cycle of the second generation. In a context of increasing homeownership rate (see Figure B1 in Appendix B), the homeownership rate of households of the second generation whose parents were homeowners or owners of other real estate properties in addition to their main residence increased more than the homeownership rate of people whose parents did not have any real estate property. For instance, the homeownership rate before 50 years old of households born between 1948 and 1952 is 1.4 times higher for households with homeowner parents compared to households whose parents were non-homeowners; while this ratio increases to 1.8 for the cohort born between 1963 and 1967 (Figure 6). For the more recent period there is even a decrease in homeownership rate for children of non-homeowners while the homeownership rate of households with homeowner parents increases (Figure 5, homeownership rates before 40, 50 and 60 years).[20]

[INSERT FIGURE 5]

[INSERT FIGURE 6]

[20] This finding is consistent with Bonnet et al. (2018) who, using another source of data (the housing surveys), also find a decreasing access to homeownership for households who do not benefit from parental support.

In order to test for these differences in homeownership rates across the wealth status of the parents, we estimate the probability to be homeowner before 30, 40, 50, and 60 years depending on the wealth of the parents and allowing for differences in this effect across cohorts. The dependent variable is defined using the retrospective information provided by the survey regarding the date of acquisition of the household main residence: the homeownership status of the household is equal to one when the household owns the main residence. [21] Using this information allows us to estimate the probability to be homeowner at various ages.

For each age *a*, we estimate the following equation[22]:

$$Prob(Homeowner\ before\ age\ a = 1) = \alpha_0 + \alpha_{wealthy}\mathbf{1}_{wealthy\ parents} * cohort + \alpha_{homeowner}\mathbf{1}_{homeowner\ parents} * cohort + \alpha_{other\ parents}\mathbf{1}_{other\ parents} * cohort + \gamma Z * cohort + \upsilon$$

(*Equation 1)*

where $\mathbf{1}_{wealthy\ parents}$, $\mathbf{1}_{homeowner\ parents}$ and $\mathbf{1}_{other\ parents}$ are wealth indicators for parental wealth (such as defined in section 2). We thus use "parents with no real estate" as the reference category. *cohort* stands for the birth cohort of the reference person, Z for control variables (gender of the reference person and not being in couple before a years old) and υ is the error term.

[INSERT TABLE 2]

[21] The survey does not provide information on whether the household was a first-time buyer or not at the time of acquisition which might lead us to underestimate the intergenerational wealth correlation. Indeed, using the retrospective information, we set the homeownership status equal to one when the households owns its main residence (taking into account the date of acquisition); and equal to zero before the date of acquisition. We may then wrongly consider that the household was not homeowner when younger. Because the share of households who purchase their house at a given age and whose parents were homeowners is decreasing with age (Table A2 in Appendix A), it may lead us to underestimate the intergenerational wealth correlation in homeownership status.

[22] Consequently, each coefficient should be subscripted with a for the age limit in order to emphasize the fact that estimations depend on this age but we abstract from this formalism for the sake of simplicity. We also abstract from the subscript h (for household) that should appear for each variable and for the error term.

The estimated intergenerational correlations between the probability to be homeowner and the wealth level indicators of the parents are summarized in Table 2. We obtain statistically significant correlations with the homeownership status of the parents during childhood for all ages and cohorts. For instance, regarding the probability to be homeowner before 40 years old, the intergenerational correlation with "homeowner parents" and "wealthy parents are respectively 0.27 and 0.35 for the reference cohort (1973-1977), meaning that the probability to be homeowner before 40 years old is increased by 27 percentage points (resp. 35 percentage points) for households whom parents were homeowners (respectively wealthy) compared to households from the same cohort whom parents didn't own any real estate properties.

This intergenerational correlation in homeownership status is increasing over cohorts both for homeowners and wealthy parents (Table 3). The probability to be homeowner before the age of 40 is increased by 6 percentage points with homeowner parents (resp. 8 percentage points with wealthy parents) for people born before 1923 to 27 percentage points (resp. 35 percentage points) for the cohort 1973-1977, compared to households of the same cohort with parents without any real estate property.

[INSERT Table 3]

We test for the statistical significance of the differences across cohorts by considering the youngest age category as the reference point (Table 2). Most of the interaction terms with the cohorts' effects are statistically significant in explaining the probability to be homeowner before the ages of 40 and 50. Such a result points out to decreasing intergenerational wealth mobility over time for more recent cohorts.

3.2. Wealth percentiles

We estimate the probability to belong to the Top wealth percentiles of the cohort (we consider in turn Top 50%, Top 25%, Top 10% and Top 5%) within a given age interval, depending on parental wealth and allowing for differences in the effect of parental wealth across cohorts (Equation 2). Such an approach allows us to account for non-linearities in the intergenerational wealth correlation at the top of the wealth distribution (Adermon et al.,

2018; Boserup et al., 2017). Under perfect intergenerational mobility, and without any control variables, these probabilities would be respectively 50%, 25%, 10% and 5%.

These regressions are done by age group, controlling for parental wealth and for the household's composition (being in couple, gender of the reference person). Age and wealth ranks are measured at the time of the survey where the household is surveyed.[23]

For each top wealth group p (i.e. top 50%, top 25%, top 10% or top 5%) and each age group [a,b] (more precisely: 30-39, 40-49, or 50-59 years old), we estimate the following linear probability model at the household level[24]:

$$Prob\ (Household\ h\ belongs\ to\ the\ top\ p\%\ wealth\ group\ between\ a\ and\ b\ years\ old) = \beta_0 + \beta_{wealthy}\mathbf{1}_{wealthy\ parents} * cohort + \beta_{homeowner}\mathbf{1}_{homeowner\ parents} * cohort + \beta_{other\ parents}\mathbf{1}_{other\ parents} * cohort + \gamma Z * cohort + \varepsilon$$

(*Equation 2)*

where $\mathbf{1}_{wealthy\ parents}$, $\mathbf{1}_{homeowner\ parents}$ and $\mathbf{1}_{other\ parents}$ are wealth indicators for parental wealth (such as defined in section 2). We thus use "parents with no real estate" as the reference category. *cohort* stands for the birth cohort of the reference person, *Z* for control variables (gender of the reference person and not being in couple before a years old) and ε is the error term.

We find a statistically significant and positive correlation between the probability to belong to top wealth percentiles and parental wealth. The probability to be in top wealth groups is significantly higher for households with homeowner parents or wealthy parents, compared to those with no real estate property (see Table 4 for a summary of the regressions). Moreover, we also find evidence that these correlations are also lower for older cohorts compared to the most recent ones (see Tables C in Appendix C for detailed results).

[23] The sample size is smaller when estimating equation (2) compared to the data used to estimate equation (1). It is because the wealth rank of a given household is measured only at the time of the interview (no retrospective information), while we are able to use the date of acquisition of the household's main residence to define the homeownership status of the household at various ages.

[24] Consequently, each coefficient should be subscripted with [a,b] and p to emphasize the fact that estimations depend on both the age group [a,b] and the top wealth group p but we abstract from this formalism for the sake of simplicity. We also abstract from the subscript h (for household) that should appear for each variable and for the error term.

[INSERT TABLE 4]

Based on these regressions we compute the conditional probabilities to belong to the top wealth groups [Figure 7].[25] These probabilities are higher for households with wealthy parents compared to those with parents whose parents were only owners of their main residence for all age groups. For instance, the estimated probability to belong to the Top 10% is about 12% for household of the 40-49 age groups with homeowner parents, after controlling for cohort, gender and being in couple. For the same age group, this probability is only 6% when the parents did not have any real estate property while it reaches 24% for households with "wealthy" parents.

[INSERT FIGURE 7]

In order to compare the magnitude of the intergenerational correlation across top percentiles, we compute the "relative effect" of the wealth of the parents as the percentage of change in the probability to belong to top wealth groups for households with homeowner parents and with wealthy parents compared to households whose parents did not have any real estate (Figure 8). First, the relative effects of the wealth of the parents are increasing across top wealth groups, and this increase is sharper for households with wealthy parents. For instance, the probability to belong to the Top 50% between the ages 40 to 49 is about 50% higher with homeowner parents (respectively 74% with "wealthy" parents), compared to households whose parents did not own any real estate properties. These relative effects of parental wealth are larger on the probability to belong to the Top 5% (respectively about 210% and 520%). Second, the relative effects vary across age groups and the life-cycle pattern differs among top wealth groups. The effect of the wealth of the parents on the probability to belong to the Top 50% exhibits a U-shaped pattern over the life-cycle, which is in line with the results obtained by Boserup et al. (2017) based on the estimation of the intergenerational wealth elasticity for Denmark. However, focusing on higher top wealth groups, we observe an inverted-U shape over the life cycle, with larger relative effects of the wealth of the parents on the probability to

[25] These conditional probabilities are then computed for households in couple and for the reference cohort of each age category. They are respectively above 25%, 10% and 5% due to large negative cohort effect compared to the reference cohort.

belong to the top 25%, top 10% and top 5% for the households aged between 40 and 49 years old, compared to younger and older households.

[INSERT FIGURE 8]

4. Sources of the intergenerational correlation: accounting for intergenerational transfers and human capital

The intergenerational wealth correlation may result from several channels. First, it may be due to direct transfers of wealth (inter vivos and inheritances) from the previous to the next generation. Second, following the Backer and Tomes (1979, 1986) approach, intergenerational correlation in wealth may reflect intergenerational correlation in income, the latter resulting from parental investment in human capital and correlation in abilities across generations. Other factors such as the intergenerational transmission of preferences (risk attitudes, patience) may also affect the intergeneration wealth correlation. Boserup et al. (2013) show that the intergenerational wealth correlation is related to these various channels which may interact with each other, so that it remains very difficult to quantify the role played by each potential channel.[26] Instead, by controlling for a subset of characteristics of both parents and children, it is possible to assess the effect of the remaining characteristics on the intergenerational wealth correlation.

We follow this approach which has been widely used in the literature (Adermon et al., 2018; Boserup et al., 2017) and add sequentially control variables in our baseline regressions (equation 1 and equation 2) to assess how much these control variables explain the intergenerational wealth correlation. The French wealth survey provides reliable qualitative information on whether any members of the household have received any substantial gift and inheritances (and when).[27] It also provides some information regarding the human capital of

[26] Part of this difficulty is also coming from the availability of information that would be required to identify each channel.

[27] However, information about how much has been received is not well reported, particularly in the old waves of the survey. A significant share of transfers is reported without any amount, and when amount is reported it is scarcely a clear amount and generally an amount between brackets. An additional difficulty is that some people report amount at the date of the receipt and others reevaluate it by themselves at the time of the survey. Garbinti and Georges-Kot (2018) show that the information about the receipt is consistent with data for the French Ministry of Justice, but the amounts reported are clearly not in line with official statistics (as shown in Alvaredo et al. 2017). We thus chose to not use information about the reported amounts (but we interact the receipts of an intergenerational transfer with the occupation of the parents in order to proxy this dimension, as explained in the main text).

the parents (occupation of the father of the reference person and of the father of the partner[28]), and we control for education of the second generation (reference person and partner). We also consider the interaction between the occupation of the parents and the receipt of a gift or an inheritance as an additional control variable in order to proxy for the value of these direct intergenerational transfers (see footnote 26). Table 5a and Table 5b summarize the regression results and display the estimates of the conditional intergenerational wealth correlation controlling for parental wealth (respectively for the probability to be homeowner and the probability to belong to top wealth percentiles).

[INSERT TABLE 5a]

[INSERT TABLE 5b]

As expected, adding potential explanatory variables for the intergenerational correlation decreases the correlation between the variables "homeowner parents" or "wealthy parents" and both the probability to be homeowner and the probability to belong to top wealth percentiles. For example, the intergenerational correlation in homeownership status decreases by about one third when all control variables are accounted for in the probability to be homeowner before 30 years old, i.e. from 0.14 (gross correlation – baseline estimate) to 0.10 (column 5 in Table 5.a). In some cases, the estimates for the intergenerational correlation even turns out to be no more statistically significant when additional control variables are introduced (for instance, the correlation between the probability to be homeowner at the age of 60 and having "wealthy parents" in Table 5.a or the probability to belong to the top 5% in Table 5.b).

Overall, the additional control variables tend to explain a larger share of the gross intergenerational correlation with the probability to belong to top wealth percentiles while they explain a lower share of the intergenerational correlation with the probability to be homeowner. Such a result may reflect that housing assets are specific assets (as dual goods, with investment and consumption purposes, illiquid assets) which also induce specific allocation strategies not well captured by the control variables (transmission of risk preferences, bequest motives, etc.).

[28] Unfortunately, there is no information regarding education of the parents.

Interestingly, the role of the control variables in explaining the intergenerational wealth correlation between the homeownership status of the parents and the probability to belong to top wealth percentiles differ among the top wealth percentiles.

Altogether the three types of variables (receipt of inheritances, occupation of the parents, education of the reference person and partner) allow explaining about 25% to 50% of the gross intergenerational correlation regarding the probability to belong to the top 50% (column 4 of Table 5.b). In particular, the role of the education of the second generation only appears to be important for low level of wealth, while it does not make a clear difference for very top wealth groups.[29] Instead, regarding the probability to belong to the Top 5%, in most cases, the correlation is fully explained and becomes non-statistically significant when controlling both for having received gift and inheritances and for occupation of the fathers of the reference person and partner.

5. Conclusion

We estimate the intergenerational wealth correlation in France between two generations for cohorts covering the 20th century. We focus on two outcomes related to the wealth accumulation behaviour of the second generation: i) The probability to be homeowner before a given age; ii) the probability to belong to the top wealth percentiles.

Our empirical analysis builds on all waves of the French Wealth Survey. We defined parental wealth indicators based on the information provided by the survey on the ownership of the main residence or of other real assets by the parents both of the reference person and his/her partner when he/she was 14 years old. It allows us to consider three wealth groups within the population: households whose parents did not have any real estate property, households with, with homeowner parents (i.e. owner of their main residence and without any other real estate property) or with "wealthy" parents (with other real estate properties in addition to their main residence).

First, we find that the probabilities for the second generation to belong to top wealth groups or to be a homeowner increase with the wealth of the parents. Such a result is holds for all age groups which points out the persistence of the effect of parental wealth over the life-cycle.

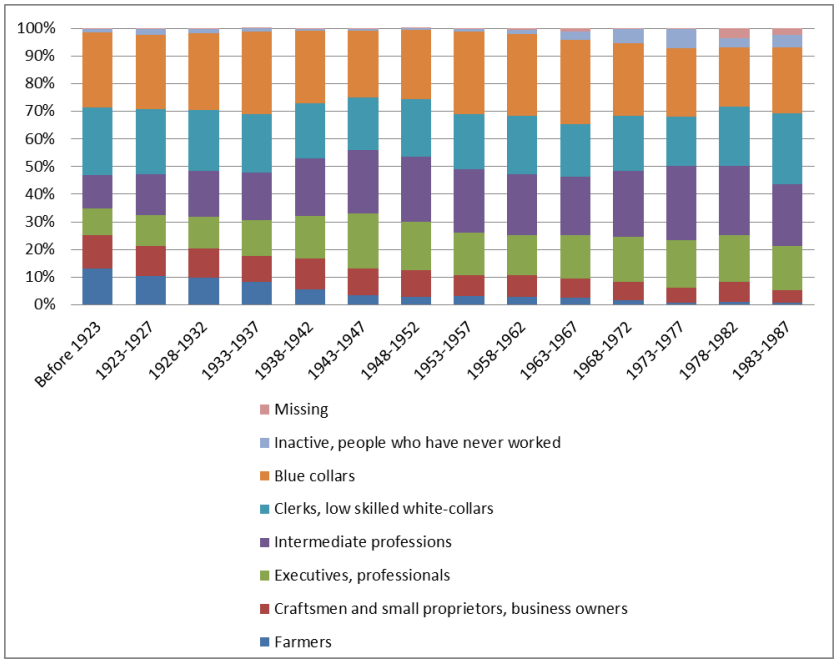
[29] Adding the additional interaction term between occupation of the parents and having received gift or inheritances does not significantly affect the estimates of the correlation (column 5 of Table 5.b) for all age groups and Top wealth percentiles.

Second, the relative effect of parental wealth is increasing across top wealth groups. Third, the intergenerational correlation in homeownership status is increasing for more recent cohorts. Fourth, the effect of parental wealth on the probability to belong to top wealth groups follows an inverted U-shape over the life-cycle. Fifth, the correlation between parental wealth and the probability to belong to the top 5% is fully explained by the receipts of intergenerational transfers and by the occupation of the fathers while for the top 50% education of the reference person and the partner plays an additional role.

The extent to which well-being and economic success are driven by parental resources is a crucial issue. Our result may be viewed as pointing out some elements that could explain recent social unrest observed in France or even the increasing feeling that France is an unfair country.[30] They also suggest that public policies may play a role in enhancing equality of opportunity by promoting education and designing appropriate redistribution schemes.

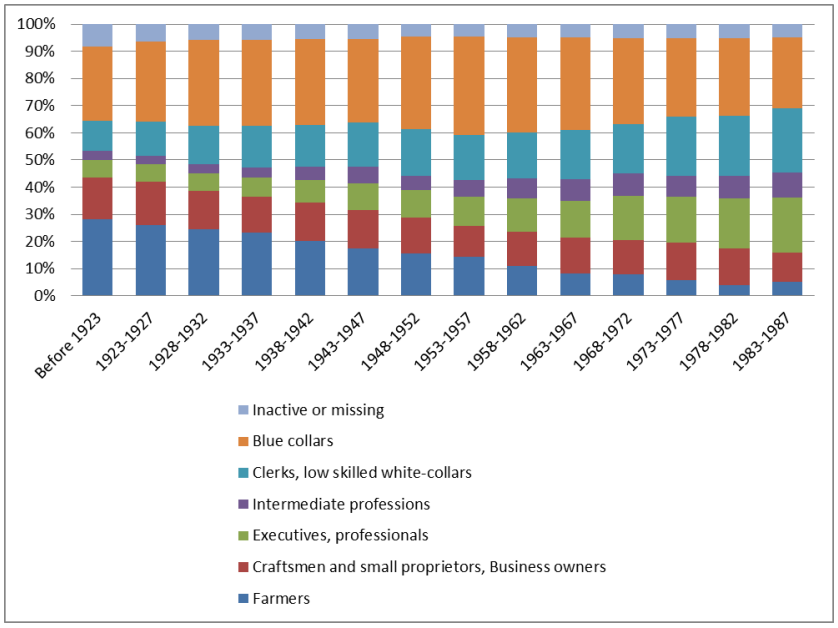
[30] Indeed, according to a regular survey about the perception of inequality in France, the share of individuals who consider that France is a "rather unfair" country has continuously increased from 2000 onwards. It rose from 68% in 2000 to 76% in 2018. Alesina et al. (2018) also document that the French are very skeptical about the fact that all individuals have equal opportunity to success.

Figure 1.a. Main occupation of the reference person by cohort



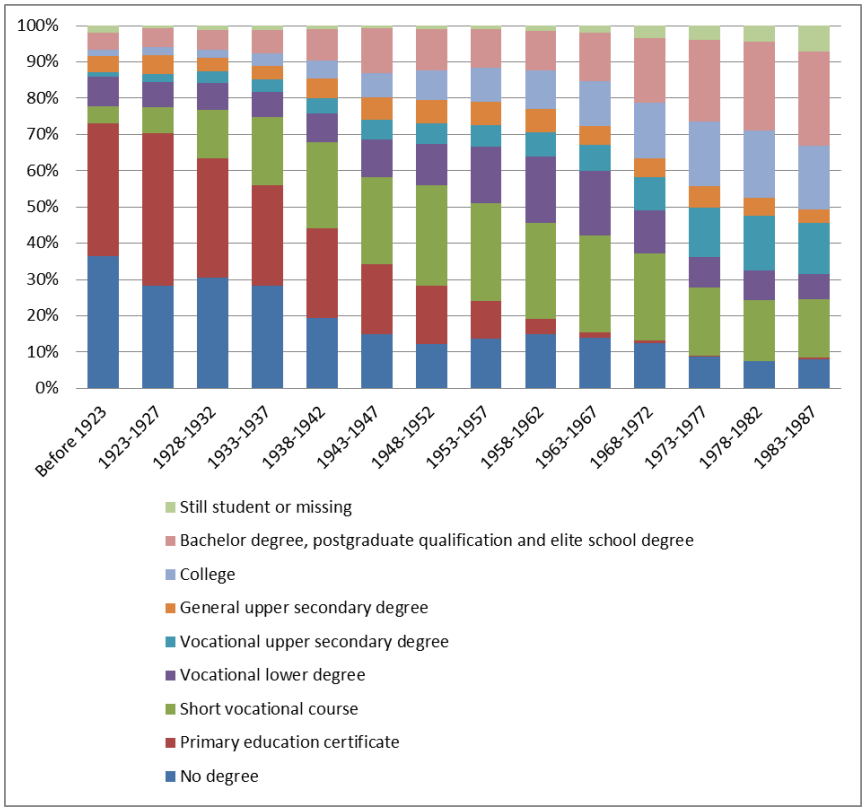
Measure of occupation is based on the standard French classification. It is the main occupation at the time of the survey interview. Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

Figure 1.b. Main occupation of the father of the reference person by cohort of the reference person



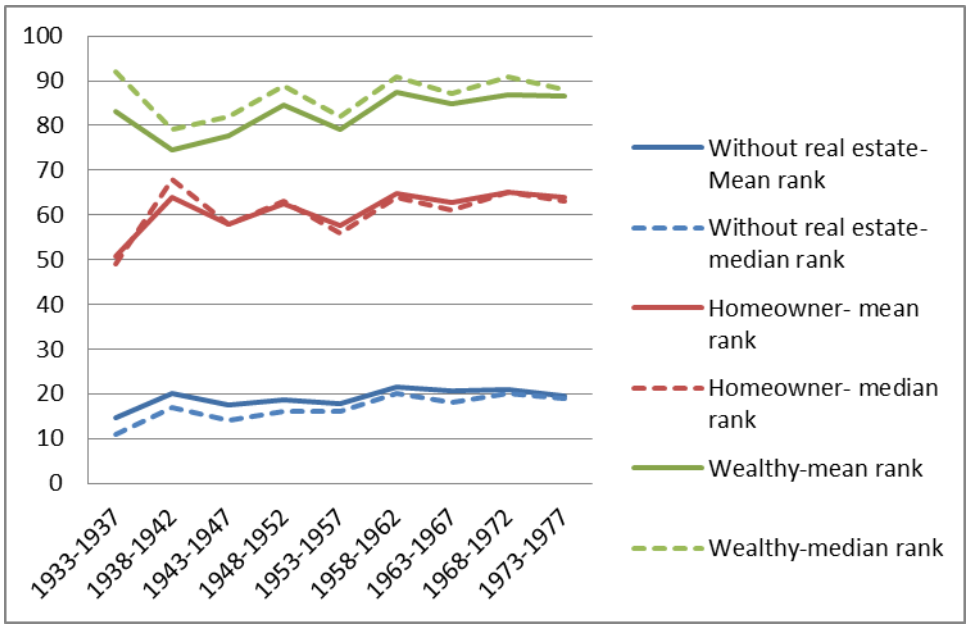
Measure of occupation is based on the standard French classification. It is the main occupation of the father of the reference person during the childhood of the reference person. Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

Figure 2. Educational attainment of the reference person by cohort



Note: Measure of education attainment based on the standard French classification. It is the highest degree completed at the time of the survey interview. Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

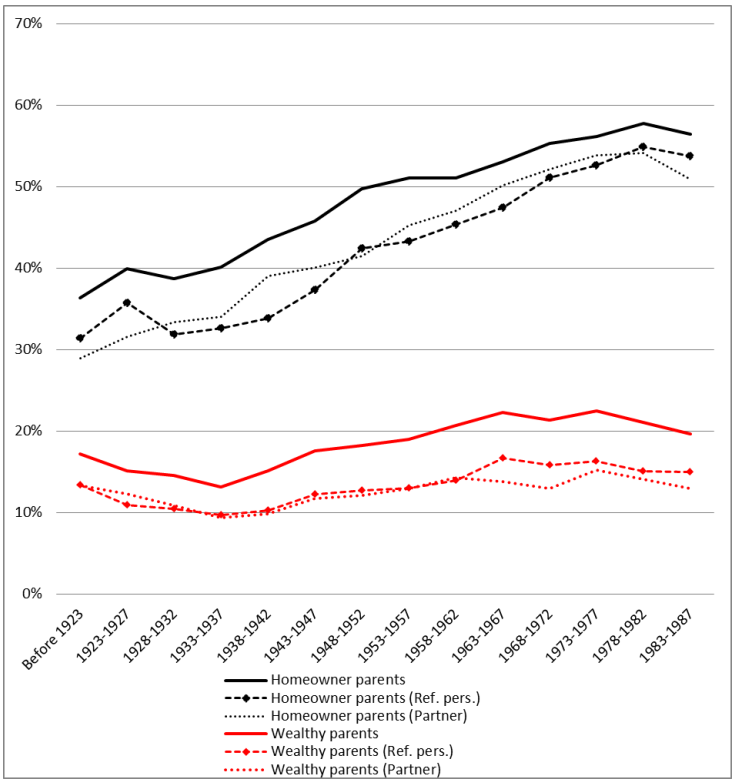
Figure 3. Ranks (mean, median) in the wealth distribution for homeowners/non-homeowners/wealthy households aged 40 to 49



Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

Note: A household is defined as homeowner if it owns its main residence without owning any other real estate property when interviewed. A household is defined as "wealthy" if it owns other real estate properties in addition to its main residence when interviewed.

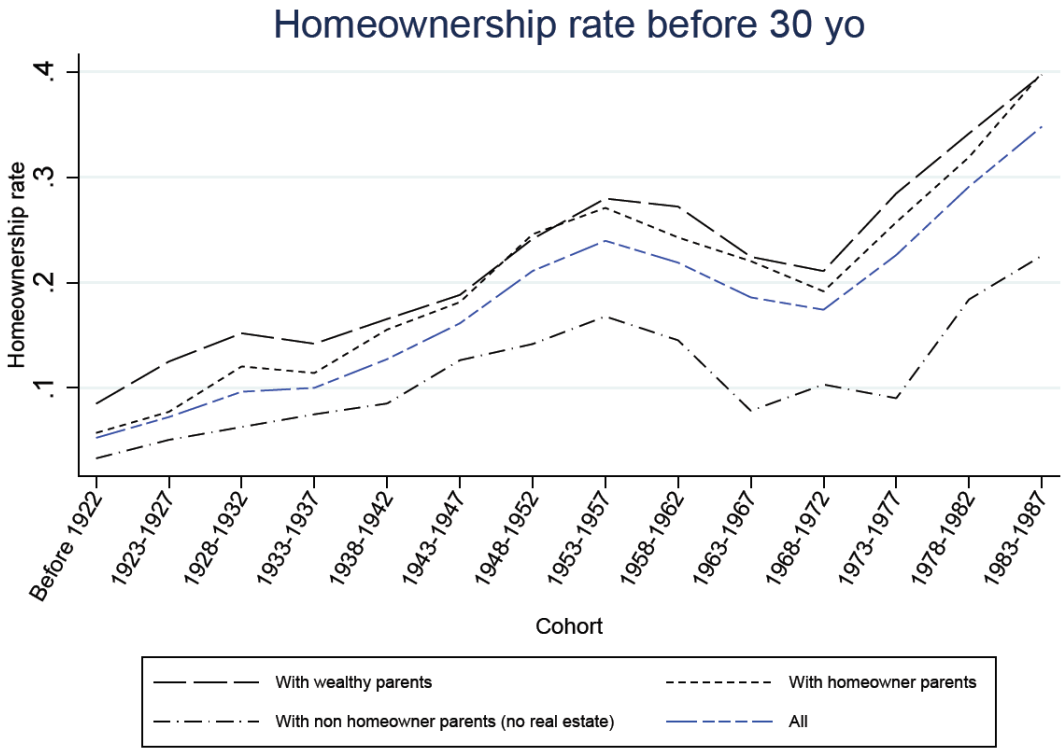
Figure 4. Wealth of the parents during childhood: percentage of homeowner parents and wealthy parents for the reference person and partner across cohorts

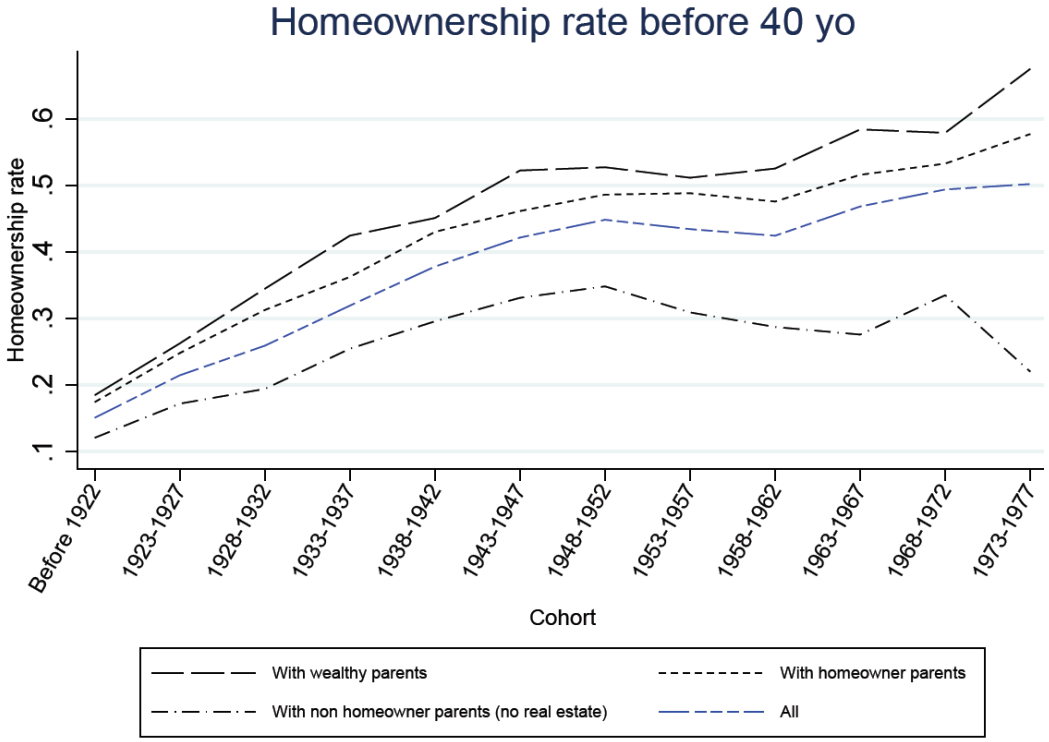


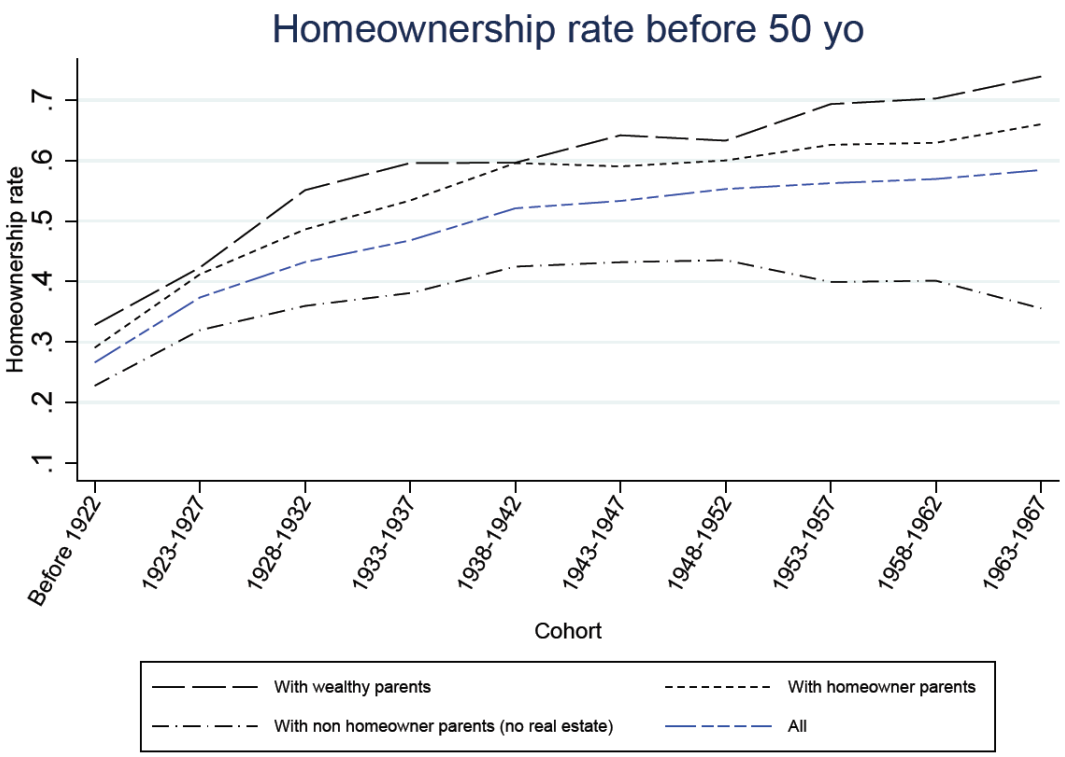
Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

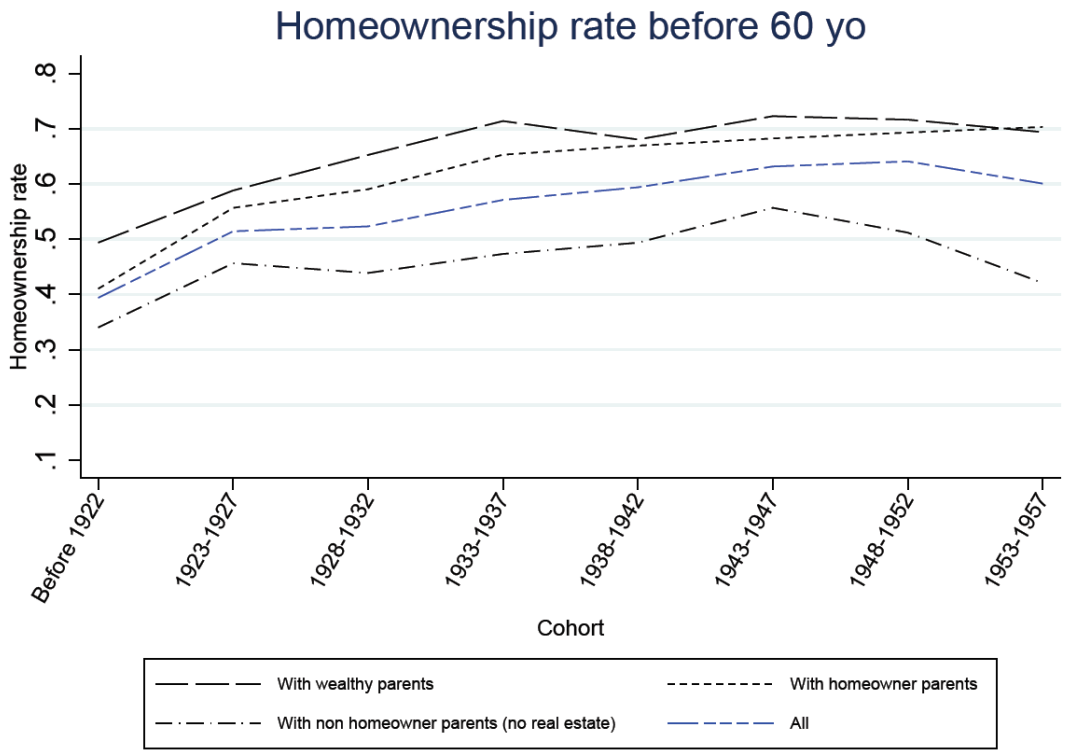
Note: Parents are defined as "homeowner parents" when one of the parents of the reference person or of the partner owned their main residence without owning any other real estate. Parents are defined as "wealthy" parents if at least one of the parents of the reference person or of the partner were owner of other real estate properties in addition to their main residence.

Figure 5. Homeownership rate before a given age, depending on the wealth of the parents by cohort





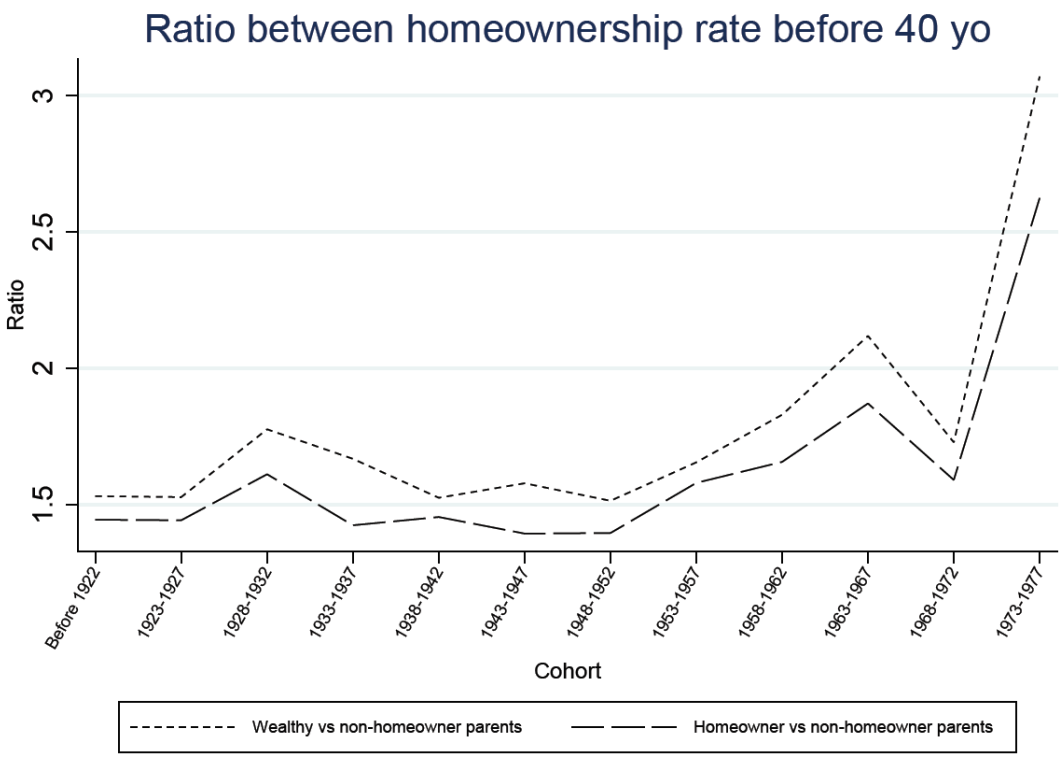


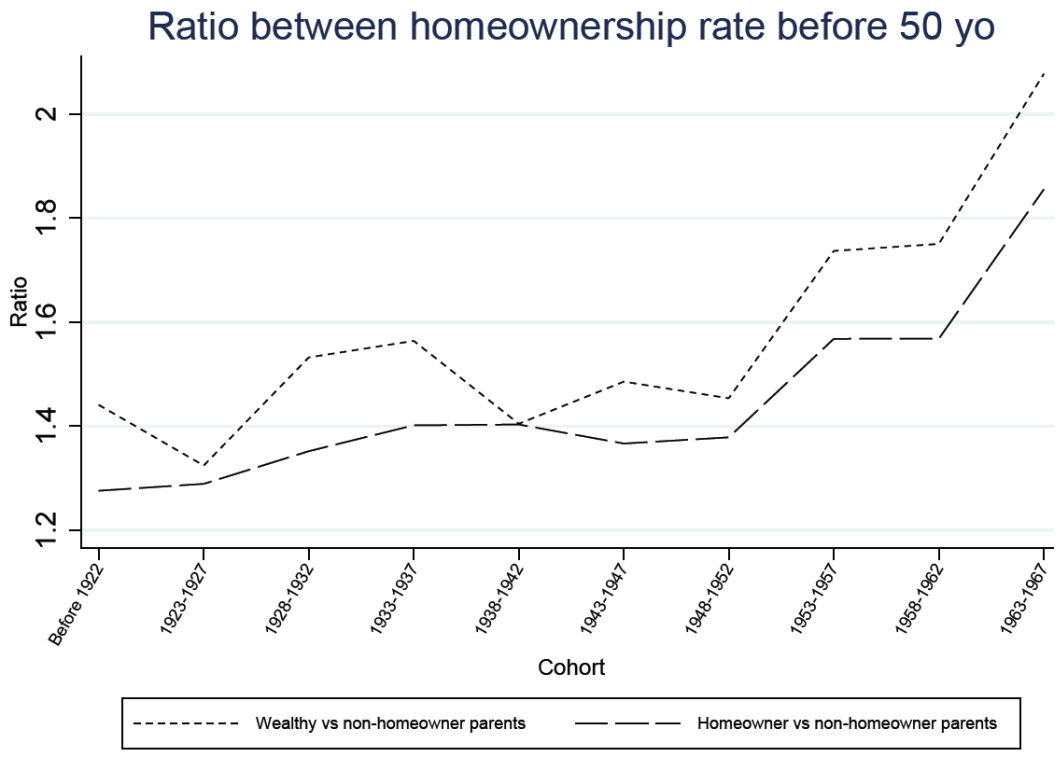


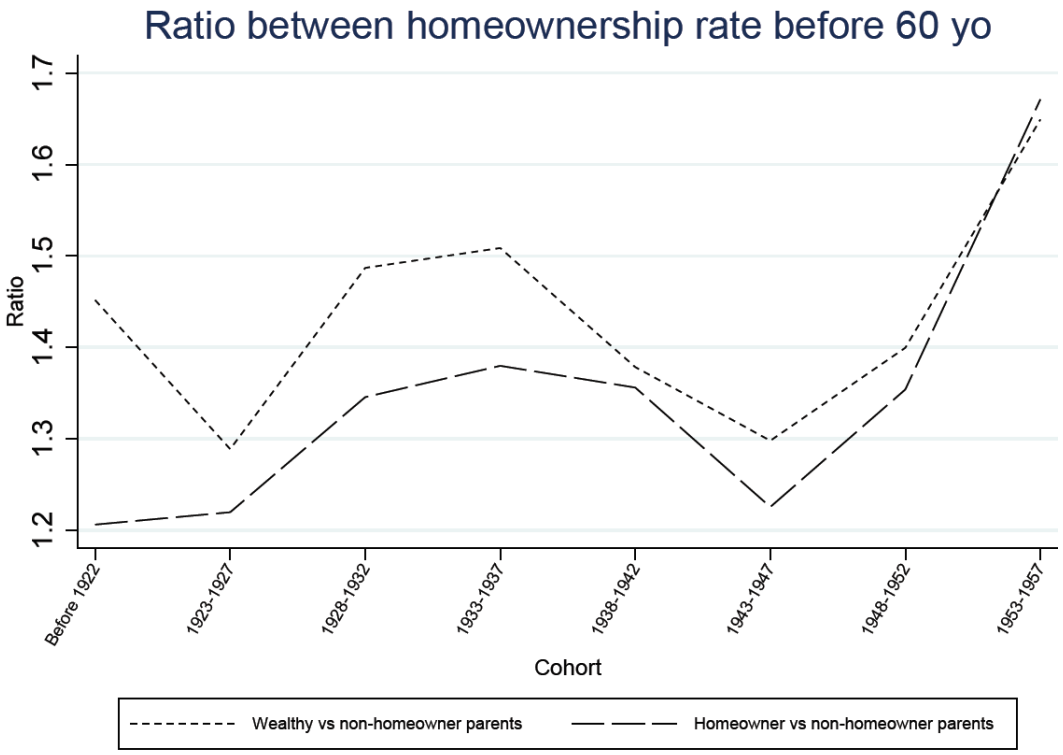
Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

Note: Parents are defined as "homeowner parents" when one of the parents of the reference person or of the partner owned their main residence without owning any other real estate. Parents are defined as "wealthy" parents if at least one of the parents of the reference person or of the partner were owner of other real estate properties in addition to their main residence.

Figure 6. Ratios between homeownership rates



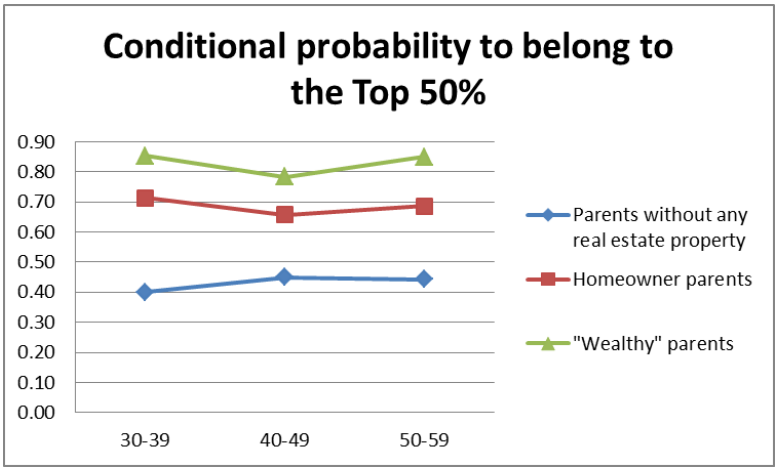


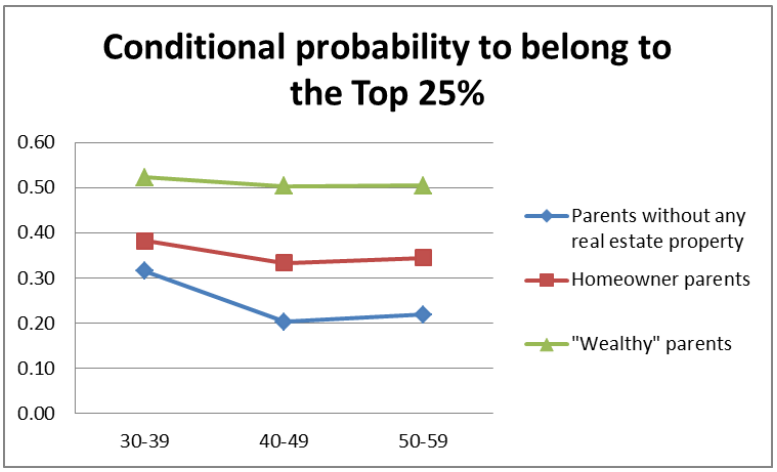


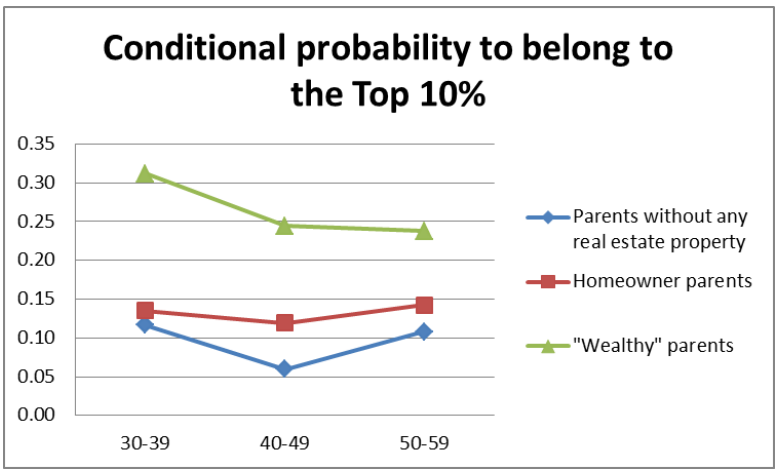
Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

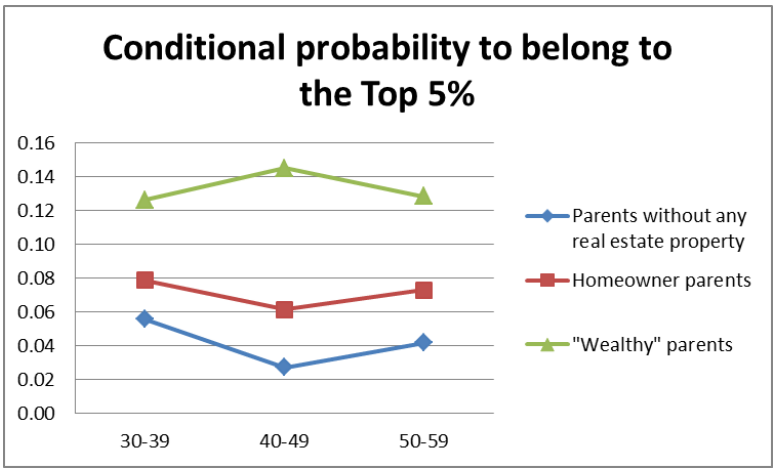
Note: Parents are defined as "homeowner parents" when one of the parents of the reference person or of the partner owned their main residence without owning any other real estate. Parents are defined as "wealthy" parents if at least one of the parents of the reference person or of the partner were owner of other real estate properties in addition to their main residence.

Figure 7. Conditional probabilities to belong to the Top wealth percentiles





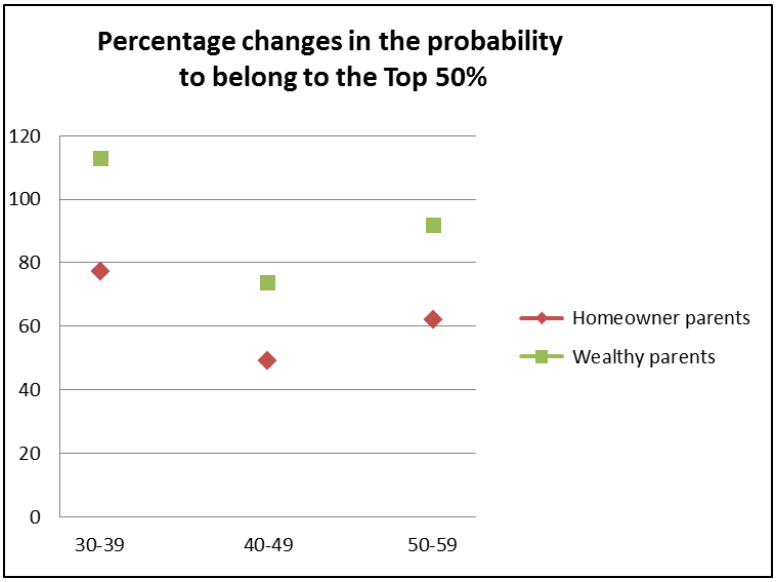


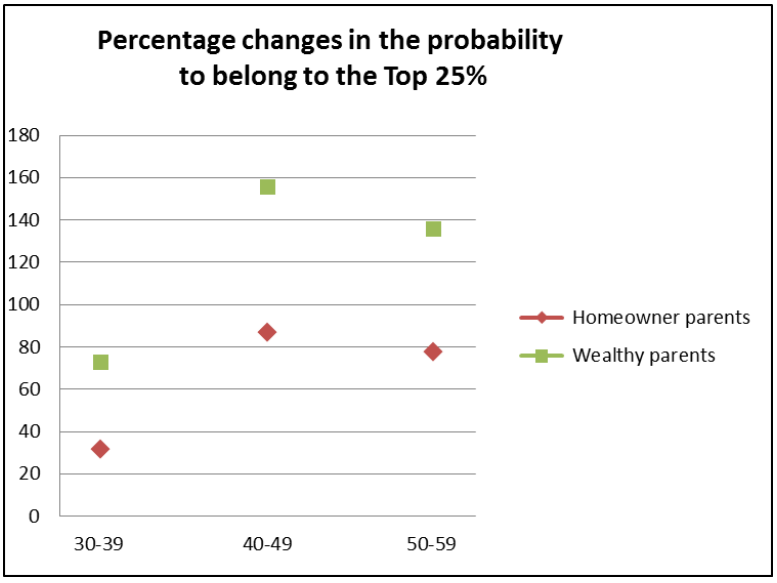


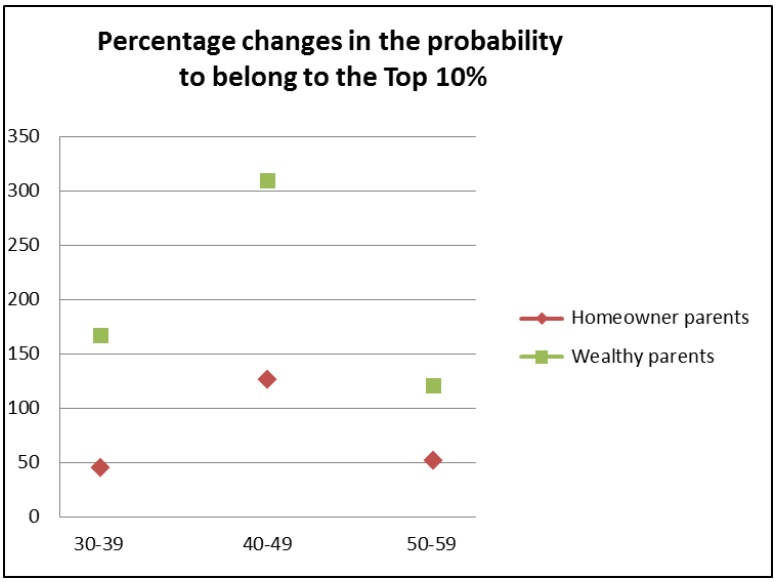
Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

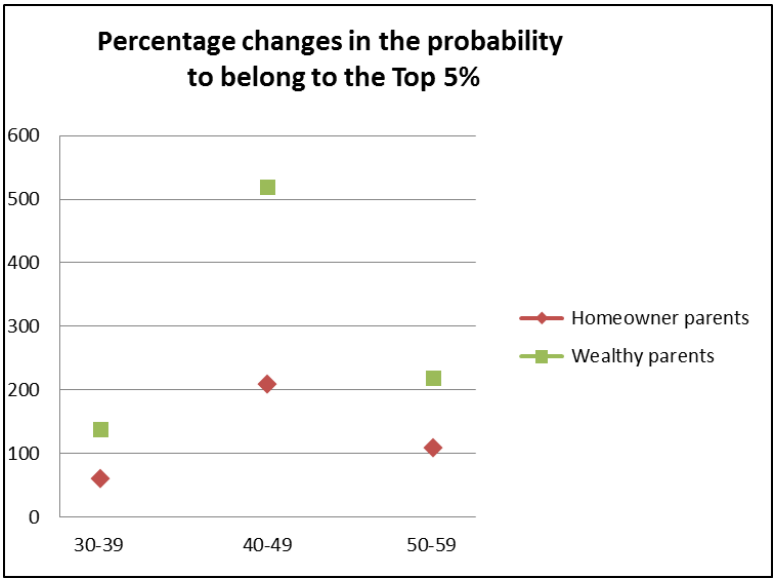
Note: OLS estimates. Dependent variable: Dummy variable equal to one if the household belong to the top wealth distribution (computed within the cohort, by survey). Estimated probabilities for the "other" category not reported. Control variables: household composition (single=yes, female reference person=yes) and birth cohorts.

Figure 8. Percentage changes in the estimated probability to belong to top wealth groups for households with homeowner parents and with wealthy parents compared to households with parents without any real estate property









Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

Note: Percentage changes computed as:

$$\frac{(\textbf{Probability to belong to the Top deciles}/wealthy\ parents)}{(\textbf{Probability to belong to the Top decile}/parents\ without\ any\ real\ estate)} * \mathbf{100}$$

Based on OLS estimates. Dependent variable: Dummy variable equal to one if the household belong to the top wealth distribution (computed within the cohort, by survey). "other" category not reported. Other control variables: household composition (single=yes, female reference person=yes).

Table 1. Sample

Cohorts	Before 1923	1923-1927	1928-1932	1933-1937	1938-1942	1943-1947	1948-1952	1953-1957	1958-1962	1963-1967	1968-1972	1973-1977	1978-1982	1983-1987	Total
Number of observations (unweighted)	3,870	3,382	4,321	4,650	4,707	6,091	6,957	6,925	6,952	5,901	4,915	3,434	2,404	1,464	**65,973**
Sample repartition by cohorts (weighted)	9%	6%	7%	7%	6%	8%	10%	10%	9%	8%	8%	5%	4%	3%	**100%**
Age group of the reference person at the time of the interview by cohorts (%)															
20-30	0%	0%	0%	0%	0%	0%	0%	5%	14%	17%	21%	27%	32%	55%	**9%**
31-40	0%	0%	0%	0%	0%	7%	16%	23%	27%	30%	32%	43%	68%	45%	**18%**
41-50	0%	0%	0%	10%	25%	27%	27%	27%	25%	33%	46%	30%	0%	0%	**20%**
51-60	0%	20%	42%	43%	39%	31%	24%	26%	34%	19%	0%	0%	0%	0%	**21%**
61-70	100%	80%	58%	47%	36%	35%	33%	19%	0%	0%	0%	0%	0%	0%	**31%**
Total	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	***100%***
Parental Wealth Indicator															
Parents without any real estate	44%	43%	45%	45%	40%	35%	31%	29%	27%	23%	21%	20%	20%	22%	***32%***
Homeowner parents	36%	40%	39%	40%	43%	46%	50%	51%	51%	53%	55%	56%	58%	56%	***48%***
Wealthy parents	17%	15%	15%	13%	15%	18%	18%	19%	21%	22%	21%	22%	21%	20%	***18%***
"Other"	2%	2%	2%	1%	1%	1%	1%	1%	2%	2%	2%	2%	2%	2%	***2%***
Total	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	***100%***

Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

Note: Cohort defined based on the year of birth of the reference person in the households.

Table 2. Intergenerational correlation: probability to be homeowner according to the wealth of the parents

	Probability of being homeowner before :			
	30 y.o.	40 y.o.	50 y.o.	60 y.o.
Constant	0.40 ***	0.45 ***	0.58 ***	0.70 ***
Homeowners parents	0.14 ***	0.27 ***	0.22 ***	0.18 ***
Wealthy parents	0.13 **	0.35 ***	0.29 ***	0.19 ***
Cohort*homeowner parents				
Before 1923	-0.12 ***	-0.21 ***	-0.16 ***	-0.11 ***
1923-1927	-0.11 **	-0.19 ***	-0.13 ***	-0.09 **
1928-1932	-0.07	-0.15 ***	-0.11 **	-0.06
1933-1937	-0.09 *	-0.18 ***	-0.11 ***	-0.07 *
1938-1942	-0.06	-0.16 ***	-0.09 **	-0.06
1943-1947	-0.08 *	-0.19 ***	-0.12 ***	-0.08 **
1948-1952	-0.05	-0.16 ***	-0.09 **	-0.04
1953-1957	-0.05	-0.13 ***	-0.06	(Ref.)
1958-1962	-0.05	-0.14 ***	-0.06	
1963-1967	-0.02	-0.08 *	(Ref.)	
1968-1972	-0.07	-0.14 ***		
1973-1977	0.02	(Ref.)		
1978-1982	-0.04			
1983-1987	(Ref.)			
Cohort*wealthy parents				
Before 1923	-0.08	-0.27 ***	-0.19 ***	-0.05
1923-1927	-0.05	-0.24 ***	-0.18 ***	-0.07
1928-1932	-0.01	-0.19 ***	-0.11 **	0.02
1933-1937	-0.04	-0.20 ***	-0.13 **	-0.02
1938-1942	-0.03	-0.21 ***	-0.14 ***	-0.03
1943-1947	-0.07	-0.22 ***	-0.17 ***	-0.08
1948-1952	-0.04	-0.20 ***	-0.15 ***	-0.06
1953-1957	-0.03	-0.18 ***	-0.06	(Ref.)
1958-1962	-0.03	-0.17 ***	-0.09	
1963-1967	0.01	-0.11 *	(Ref.)	
1968-1972	-0.04	-0.16 ***		
1973-1977	0.08	(Ref.)		
1978-1982	-0.02			
1983-1987	(Ref.)			
Other controls				
Parents without real estate	(Ref.)	(Ref.)	(Ref.)	(Ref.)
Parents "other" category	YES	YES	YES	YES
Single*cohort	YES	YES	YES	YES
Female ref. pers. *cohort	YES	YES	YES	YES
Cohort	YES	YES	YES	YES
# obs	61,051	50,439	37,527	24,389

Note: OLS estimates. Dependent variable: Homeownership status of the household is equal to one when the household owns the main residence from the age it has been acquired to the age the household is surveyed. "Homeowner parents" is equal to one if at least either the parents of the reference person or the partner were holding their main residence without owning any other real estate, "wealthy" parents" is equal to one if the at least one of the parents who owned their main residence also owned other real estate properties. Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

Table 3. Estimated intergenerational wealth correlation: probability to be homeowner before a given age and parental wealth

	Before 30 y.o				Before 40 y.o				Before 50 y.o				Before 60 y.o			
	Homeowner parents		Wealthy parents		Homeowner parents		Wealthy parents		Homeowner parents		Wealthy parents		Homeowner parents		Wealthy parents	
	Corr.	*P. value*	Corr.	*P. value*	Corr.	P. value	Corr.	P. value	Corr.	P. value	Corr.	P. value	Corr.	P. value	Corr.	P. value
Before 1923	0.03	*0.00*	0.06	*0.00*	0.06	*0.00*	0.08	*0.00*	0.07	*0.00*	0.11	*0.00*	0.07	*0.00*	0.14	*0.00*
1923-1927	0.04	*0.00*	0.08	*0.00*	0.08	*0.00*	0.11	*0.00*	0.09	*0.00*	0.12	*0.00*	0.09	*0.00*	0.12	*0.00*
1928-1932	0.08	*0.00*	0.12	*0.00*	0.12	*0.00*	0.16	*0.00*	0.11	*0.00*	0.19	*0.00*	0.12	*0.00*	0.21	*0.00*
1933-1937	0.06	*0.00*	0.09	*0.00*	0.09	*0.00*	0.15	*0.00*	0.11	*0.00*	0.17	*0.00*	0.11	*0.00*	0.17	*0.00*
1938-1942	0.08	*0.00*	0.10	*0.00*	0.11	*0.00*	0.14	*0.00*	0.13	*0.00*	0.15	*0.00*	0.11	*0.00*	0.16	*0.00*
1943-1947	0.06	*0.00*	0.07	*0.00*	0.08	*0.00*	0.13	*0.00*	0.10	*0.00*	0.13	*0.00*	0.09	*0.00*	0.11	*0.00*
1948-1952	0.10	*0.00*	0.10	*0.00*	0.11	*0.00*	0.15	*0.00*	0.13	*0.00*	0.15	*0.00*	0.14	*0.00*	0.13	*0.00*
1953-1957	0.10	*0.00*	0.10	*0.00*	0.14	*0.00*	0.17	*0.00*	0.16	*0.00*	0.23	*0.00*	0.18	*0.00*	0.19	*0.00*
1958-1962	0.09	*0.00*	0.10	*0.00*	0.13	*0.00*	0.18	*0.00*	0.16	*0.00*	0.21	*0.00*				
1963-1967	0.13	*0.00*	0.15	*0.00*	0.19	*0.00*	0.24	*0.00*	0.22	*0.00*	0.29	*0.00*				
1968-1972	0.07	*0.00*	0.09	*0.00*	0.13	*0.00*	0.19	*0.00*								
1973-1977	0.16	*0.00*	0.21	*0.00*	0.27	*0.00*	0.35	*0.00*								
1978-1982	0.11	*0.00*	0.12	*0.01*												
1983-1987	0.14	*0.00*	0.13	*0.02*												

Note: OLS estimates (detailed results available in Table 2). The intergenerational correlation is the sum of the estimates of intergenerational correlation for the reference cohort plus the interaction term between the wealth group of the parents and the cohort specific effect.

Table 4. Intergenerational correlation: Probability to be in the Top wealth distribution and parental wealth

		Probability to belong to the:			
Age group		**Top 50%**	**Top 25%**	**Top 10%**	**Top 5%**
30-39	Homeowner parents	0.31 ***	0.08 **	0.02	0.03
	"Wealthy"parents	0.45 ***	0.22 ***	0.20 ***	0.07 ***
40-49	Homeowner parents	0.21 ***	0.14 ***	0.06 ***	0.04 ***
	"Wealthy"parents	0.33 ***	0.31 ***	0.18 ***	0.12 ***
50-59	Homeowner parents	0.24 ***	0.13 ***	0.03	0.03 **
	"Wealthy"parents	0.41 ***	0.29 ***	0.13 ***	0.09 ***

Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

Note: Dependent variable: Dummy variable equal to one if the household belong to the top wealth distribution (computed within the cohort, by survey). Estimated coefficients for the "other" parents category not reported. Other control variables: cohorts and household composition (single=yes, female reference person=yes), and interactions between cohorts and household composition variables. Detailed results in Appendix C (OLS estimates). The reference group is parents with no real estate property.

Table 5.a. Intergenerational correlation accounting for inheritances and human capital: Probability to be homeowner

		Baseline	Additional controls			
		(1)	(2)	(3)	(4)	(5)
		Probability to be homeowner before				
30 y.o.	Homeowner parents	0.14 ***	0.13 ***	0.14 ***	0.10 **	0.10 **
	"Wealthy"parents	0.13 ***	0.09	0.12 *	0.0735	0.07
40 y.o.	Homeowner parents	0.27 ***	0.24 ***	0.22 ***	0.20 ***	0.19 ***
	"Wealthy"parents	0.35 ***	0.30 ***	0.27 ***	0.24 ***	0.22 ***
50 y.o.	Homeowner parents	0.22 ***	0.20 ***	0.18 ***	0.17 ***	0.16 ***
	"Wealthy"parents	0.29 ***	0.25 ***	0.20 ***	0.19 ***	0.17 ***
60 y.o.	Homeowner parents	0.18 ***	0.15 ***	0.12 ***	0.12 ***	0.11 ***
	"Wealthy"parents	0.19 ***	0.14 ***	0.08 *	0.07	0.05
Controls for : cohort, gender, single		YES	YES	YES	YES	YES
Additional controls for:						
- Gifts and inheritances received		NO	YES	YES	YES	YES
- Occupation of the father (ref.pers and partner)		NO	NO	YES	YES	YES
- Occupation of the father (ref.pers and partner)'		NO	NO	NO	NO	YES
- Education (ref.pers. and partner)		NO	NO	NO	YES	YES

Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

Note: OLS estimates. Dependent variable: Homeownership status of the household is equal to one when the household owns the main residence from the age it has been acquired to the age the household is surveyed. "Homeowner parents" is equal to one if at least the parents of the reference person or the partner were holding their main residence all of them were without any other real estate, "Wealthy" parents" is equals to one if the at least one of the parents was owning other real estate properties in addition to the main residence.

Table 5.b. Intergenerational correlation accounting for inheritances and human capital: Probability to be belong to top wealth percentiles

		Baseline	Additional controls			
Age group	**Intergenerational correlation**	(1)	(2)	(3)	(4)	(5)
		Probability to belong to the Top 50%				
30-39	Homeowner parents	0.31 ***	0.29 ***	0.30 ***	0.24 ***	0.24 ***
	Wealthy parents	0.45 ***	0.39 ***	0.41 ***	0.29 ***	0.30 ***
40-49	Homeowner parents	0.21 ***	0.18 ***	0.16 ***	0.13 ***	0.12 ***
	Wealthy parents	0.33 ***	0.27 ***	0.26 ***	0.21 ***	0.20 ***
50-59	Homeowner parents	0.24 ***	0.22 ***	0.18 ***	0.16 ***	0.15 ***
	Wealthy parents	0.41 ***	0.33 ***	0.23 ***	0.22 ***	0.20 ***
		Probability to belong to the Top 25%				
30-39	Homeowner parents	0.08 **	0.06	0.07 **	0.03	0.04
	Wealthy parents	0.22 ***	0.17 ***	0.18 ***	0.10 *	0.10
40-49	Homeowner parents	0.14 ***	0.11 ***	0.09	0.07 **	0.07 **
	Wealthy parents	0.31 ***	0.25 ***	0.20 ***	0.16 ***	0.16 ***
50-59	Homeowner parents	0.13 ***	0.11 ***	0.07 **	0.05 *	0.06 *
	Wealthy parents	0.29 ***	0.22 ***	0.13 ***	0.10 ***	0.11 ***
		Probability to belong to the Top 10%				
30-39	Homeowner parents	0.02	0.01	0.00	-0.02	-0.02
	Wealthy parents	0.20 ***	0.16 ***	0.14 ***	0.10 **	0.10 **
40-49	Homeowner parents	0.06 ***	0.04 **	0.02	0.02	0.02
	Wealthy parents	0.18 ***	0.14 ***	0.10 ***	0.08 ***	0.08 ***
50-59	Homeowner parents	0.03	0.02	-0.01	-0.01	-0.01
	Wealthy parents	0.13 ***	0.09 ***	0.03	0.02	0.03
		Probability to belong to the Top 5%				
30-39	Homeowner parents	0.03	0.02	0.01	-0.01	-0.01
	Wealthy parents	0.07 ***	0.05 *	0.03	0.00	0.02
40-49	Homeowner parents	0.04 ***	0.03 ***	0.01	0.01	0.02 *
	Wealthy parents	0.12 ***	0.10 ***	0.06 ***	0.06 ***	0.05 ***
50-59	Homeowner parents	0.03 **	0.03 *	0.01	0.01	0.01
	Wealthy parents	0.09 ***	0.07 ***	0.04 *	0.03	0.03
Controls for : cohort, gender, single		YES	YES	YES	YES	YES
Additional controls for:						
- Gifts and inheritances received		NO	YES	YES	YES	YES
- Occupation of the father (ref.pers and partner)		NO	NO	YES	YES	YES
- Education (ref.pers. and partner)		NO	NO	NO	YES	YES
- Occupation of the father (ref.pers and partner)* Gifts and inheritances		NO	NO	NO	NO	YES
- Education (ref.pers. and partner)		NO	NO	NO	YES	YES

Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

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A. APPENDIX

Occupations: Our measure of occupation is based on the standard French classification. It is the main occupation at the time of the survey interview. The question is asked to the reference person and his spouse.

Education attainment: It is the highest degree completed at the time of the survey interview. The question is asked to the reference person and his spouse. Measure of education attainment based on the standard French classification. We use the following translation for French diploma (see https://publication.enseignementsup-recherche.gouv.fr/eesr/10EN/EESR10EN_Annexe_8-levels_of_educational_attainment.php)

Primary education certificate	Short vocational course	Vocational lower degree	Vocational upper secondary degree	General upper secondary degree	College	Bachelor degree, postgraduate qualification and elite school degree
CEP	CAP	BEPC	Bac technique/Brevet professionnel	Bac general	Bac to Bac +2	Bac +3 and higher

Table A.1. Sample composition by age groups

Age at the time of the survey (ref.pers.)	Share of couples	Share of male ref pers within couples	Share of men within singles
20-30	54.0%	89.2%	47.5%
31-40	69.3%	89.0%	45.0%
41-50	66.2%	89.8%	43.2%
51-60	64.8%	89.1%	39.5%
61-70	57.5%	91.5%	32.4%

Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017. Cohorts born before 1987.

Table A2. Age of purchase of the main residence and share of homeowner parents

Age of purchase of the main residence	Share of homeowner parents
20-30	88.0%
31-40	85.2%
41-50	75.9%
51-60	66.2%
61-70	60.4%

Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

Table A3. Ranks distribution for households with no real estate property, homeowners and "wealthy" households by cohorts and age groups

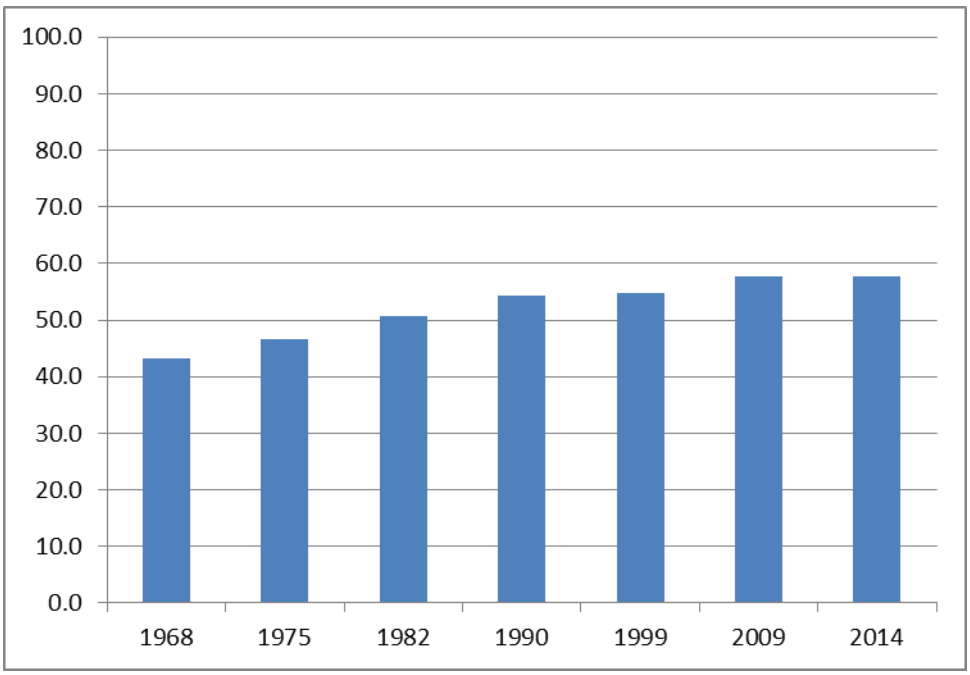
		Without any real estate property				Homeowner				"Wealthy"			
		Mean	Median	p25	p75	Mean	Median	p25	p75	Mean	Median	p25	p75
	1943-1947	24	22	11	31	59	57	40	77	75	75	65	88
	1948-1952	27	26	11	39	72	74	61	87	86	89	77	97
	1953-1957	23	21	11	32	66	66	51	82	81	87	72	98
	1958-1962	35	31	16	49	76	77	66	88	86	89	80	96
Age 30-39	1963-1967	26	24	12	34	68	68	55	82	79	86	70	93
	1968-1972	30	28	13	45	77	78	66	88	91	94	90	98
	1973-1977	26	25	14	36	68	67	56	80	86	89	79	94
	1978-1982	31	26	14	43	76	78	66	88	90	94	85	98
	1983-1987	26	25	13	36	68	68	56	80	85	89	79	94
	1933-1937	15	11	5	20	51	49	34	73	83	92	67	94
	1938-1942	20	17	7	28	64	68	48	81	75	79	60	93
	1943-1947	17	14	9	20	58	58	40	77	78	82	68	93
	1948-1952	19	16	8	25	63	63	47	78	84	89	78	96
Age 40-49	1953-1957	18	16	8	23	58	56	42	74	79	82	68	94
	1958-1962	21	20	10	28	65	64	50	79	87	91	78	98
	1963-1967	21	18	10	27	63	61	48	76	85	87	79	94
	1968-1972	21	20	10	29	65	65	51	78	87	91	81	96
	1973-1977	20	19	9	28	64	63	51	77	87	88	82	96
	1923-1927	37	26	21	52	63	65	53	79	77	77	64	89
	1928-1932	15	12	6	18	52	51	37	66	79	85	68	94
	1933-1937	17	13	7	19	58	57	40	78	74	76	60	91
	1938-1942	16	12	7	21	50	49	33	64	76	80	65	94
Age 50-59	1943-1947	15	12	6	18	55	52	37	71	79	84	69	93
	1948-1952	17	15	7	22	58	57	41	74	83	87	74	94
	1953-1957	14	13	6	18	56	54	39	71	82	85	73	94
	1958-1962	18	17	8	25	60	58	45	73	83	88	76	95
	1963-1967	19	17	10	25	61	60	48	75	83	87	76	94

Source: French Wealth survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014 and 2017.

Note: A household is defined as homeowner if it owns its main residence without owning any other real estate property when interviewed. A household is defined as "wealthy" if it owns other real estate properties in addition to its main residence when interviewed. Category "other" not reported.

Appendix B.

Table B.1. Homeownership rate in France 1968-2014 (%)



Source: INSEE, available at: https://www.insee.fr/fr/statistiques/3642600#tableau-figure1

APPENDIX C: DETAILED RESULTS

C.1. Probability to belong to the top 50%

	Probability to belong to the Top 50% between:		
	30-39 y.o.	40-49 y.o.	50-59 y.o.
Constant	0.40	0.45 ***	0.44 ***
Homeowner parents	0.31 ***	0.21 ***	0.24 ***
Wealthy parents	0.45 ***	0.33 ***	0.41 ***
Cohort*homeowner parents			
Before 1923			
1923-1927			
1928-1932			-0.07
1933-1937			-0.15 **
1938-1942		-0.07	-0.11 *
1943-1947		-0.07	-0.12 **
1948-1952	-0.14 **	-0.14 ***	-0.04
1953-1957	-0.19 ***	-0.08	-0.15 ***
1958-1962	-0.23 ***	-0.03	-0.06
1963-1967	-0.10 *	0.03	(Ref.)
1968-1972	-0.09	-0.03	
1973-1977	-0.09	(Ref.)	
1978-1982	-0.14 **		
1983-1987	(Ref.)		
cohort*wealthy parents			
Before 1923			
1923-1927			
1928-1932			-0.15 *
1933-1937			-0.24 ***
1938-1942		-0.08	-0.14 **
1943-1947		-0.07	-0.03
1948-1952	-0.18 **	-0.11 *	0.00
1953-1957	-0.30 ***	0.02	-0.10 *
1958-1962	-0.24 ***	-0.04	-0.07
1963-1967	-0.08	0.08	(Ref.)
1968-1972	-0.09	-0.04	
1973-1977	-0.06	(Ref.)	
1978-1982	-0.16 **		
1983-1987	(Ref.)		
Other controls			
Parents without real estate	(Ref.)	(Ref.)	(Ref.)
"other " Parents	YES	YES	YES
Single*cohort	YES	YES	YES
Female ref. pers. *cohort	YES	YES	YES
Cohort	YES	YES	YES
# obs	10,473	12,825	13,055

C.2. Probability to belong to the top 25%

	Probability to belong to the Top 25% between:		
	30-39 y.o.	40-49 y.o.	50-59 y.o.
Constant	0.30 ***	0.20 ***	0.21 ***
Homeowner parents	0.08 **	0.14 ***	0.13 ***
Wealthy parents	0.22 ***	0.31 ***	0.29 ***
Cohort*homeowner parents			
Before 1923			
1923-1927			
1928-1932			0.00
1933-1937			-0.04
1938-1942		-0.09	-0.06
1943-1947		-0.08 *	-0.10 ***
1948-1952	-0.03	-0.09 **	-0.03
1953-1957	-0.02	-0.05	-0.07 *
1958-1962	-0.07	-0.05	0.00
1963-1967	0.06	-0.01	(Ref.)
1968-1972	0.02	-0.04	
1973-1977	0.05	(Ref.)	
1978-1982	0.04		
1983-1987	(Ref.)		
cohort*wealthy parents			
Before 1923			
1923-1927			
1928-1932			-0.03
1933-1937			-0.12 *
1938-1942		-0.15 *	-0.03
1943-1947		-0.12 *	0.04
1948-1952	0.04	-0.13 **	0.08
1953-1957	-0.12 *	0.02	-0.01
1958-1962	-0.09	0.03	0.07
1963-1967	0.12 *	0.06	(Ref.)
1968-1972	0.04	0.02	
1973-1977	0.11	(Ref.)	
1978-1982	0.06		
1983-1987	(Ref.)		
Other controls			
Parents without real estate	(Ref.)	(Ref.)	(Ref.)
"other " Parents	YES	YES	YES
Single*cohort	YES	YES	YES
Female ref. pers. *cohort	YES	YES	YES
Cohort	YES	YES	YES
# obs	10,473	12,825	13,055

C.3. Probability to belong to the top 10%

	Probability to belong to the Top 10% between:		
	30-39 y.o.	40-49 y.o.	50-59 y.o.
Constant	0.12 ***	0.06 ***	0.11 ***
Homeowner parents	0.02	0.06 ***	0.03
Wealthy parents	0.20 ***	0.18 ***	0.13 ***
Cohort*homeowner parents			
Before 1923			
1923-1927			
1928-1932			0.02
1933-1937			-0.03
1938-1942		-0.04	-0.02
1943-1947		-0.05	-0.01
1948-1952	0.01	-0.07 **	0.03
1953-1957	0.00	-0.01	-0.03
1958-1962	-0.06 *	-0.04 **	0.03
1963-1967	0.03	-0.02	(Ref.)
1968-1972	0.03	0.00	
1973-1977	0.03	(Ref.)	
1978-1982	0.02		
1983-1987	(Ref.)		
cohort*wealthy parents			
Before 1923			
1923-1927			
1928-1932			0.02
1933-1937			-0.06
1938-1942		-0.03	0.03
1943-1947		-0.08 *	0.09 *
1948-1952	-0.09	-0.09 **	0.10 ***
1953-1957	-0.12 **	0.02	0.06
1958-1962	-0.11 **	0.04	0.05
1963-1967	0.00	0.03	(Ref.)
1968-1972	-0.05	0.01	
1973-1977	0.00	(Ref.)	
1978-1982	-0.04		
1983-1987	(Ref.)		
Other controls			
Parents without real estate	(Ref.)	(Ref.)	(Ref.)
"other " Parents	YES	YES	YES
Single*cohort	YES	YES	YES
Female ref. pers. *cohort	YES	YES	YES
Cohort	YES	YES	YES
# obs	10,473	12,825	13,055

C.4. Probability to belong to the top 5%

	Probability to belong to the Top 5% between:		
	30-39 y.o.	40-49 y.o.	50-59 y.o.
Constant	0.05 ***	0.02 ***	0.04 **
Homeowner parents	0.03	0.04 ***	0.03 **
Wealthy parents	0.07 ***	0.12 ***	0.09 ***
Cohort*homeowner parents			
Before 1923			
1923-1927			
1928-1932			0.01
1933-1937			-0.02
1938-1942		-0.03	-0.05 *
1943-1947		-0.04	-0.02
1948-1952	-0.02	-0.06 ***	0.00
1953-1957	-0.02	-0.02	-0.02
1958-1962	-0.07 ***	-0.03 *	0.01
1963-1967	0.01	-0.02	(Ref.)
1968-1972	0.01	-0.01	
1973-1977	0.00	(Ref.)	
1978-1982	0.01		
1983-1987	(Ref.)		
cohort*wealthy parents			
Before 1923			
1923-1927			
1928-1932			0.01
1933-1937			-0.03
1938-1942		-0.01	0.02
1943-1947		-0.04	0.04
1948-1952	-0.03	-0.06 *	0.06 *
1953-1957	-0.05	-0.01	0.04
1958-1962	-0.03	0.01	0.01
1963-1967	0.03	-0.01	
1968-1972	0.02	0.01	
1973-1977	0.08 **	(Ref.)	
1978-1982	0.03		
1983-1987	(Ref.)		
Other controls			
Parents without real estate	(Ref.)	(Ref.)	(Ref.)
"other " Parents	YES	YES	YES
Single*cohort	YES	YES	YES
Female ref. pers. *cohort	YES	YES	YES
Cohort	YES	YES	YES
# obs	10,473	12,825	13,055