The gender wealth gap in France: deciphering the influence of factors

Carole Bonnet (Ined, Drees)[1],
Alice Keogh (Paris 1 University)
Benoît Rapoport (Paris 1 University, Drees)

Preliminary version –Please do not quote

June 1st 2012

Abstract

There exists an extensive literature analyzing the gender wage gap. More recently, many studies have sought to examine the gender pension gap. On the other hand, wealth inequalities are still a relatively unexplored topic (Deere & Doss, 2006), mainly due to lack of adequate data. Unlike income, wealth is often described at the household level, thereby leading to a focus on the distribution across, as opposed to within, households. Nevertheless, wealth is a central aspect of individual wellbeing, and its distribution between genders a relevant topic. Assessing the wealth allotment within couples could contribute to the literature on the intra-household allocation of resources and its influence on bargaining power. Here, we investigate the question of a gender wealth gap in France, relying on adequate data. The 2003 and 2009 French wealth surveys render feasible the task of precisely identifying who owns what within the household (for housing and financial assets). The gross wealth of men is 15% higher than that of women; the gap is noticeably larger for financial assets (roughly 37%) than for main residence (4% to 8%). The results are similar in both surveys. To better identify the contributions of specific factors (demographic, economic…) to the overall wealth gap, we use the semi-parametric decomposition method by DiNardo,Fortin&Lemieux (1996) [aka DFL decomposition]. We show that the gender wealth gap is predominantly explained by the existing differences in the distribution of observed characteristics, in particular those linked to the labour market. Emphasis should be placed, however, on the unexplained part, which is high and negative. This means that the gap ought to be even higher given the observed characteristics: it is reduced by the better "remuneration" that women are awarded for their characteristics. Indeed, women derive more wealth from their characteristics than do men

---

[1] Corresponding author: carole.bonnet@ined.fr
INED, 133 bd Davout, 75980 Paris cedex 20, FRANCE. Tel : +33 (0)1 56 06 22 36

Introduction

An extensive literature analyses the gender pay gap (Kunze, 2008). More recently, numerous studies have sought to examine the gaps in retirement pensions, revealing the links that exist between them and the characteristics of the labour market or the design of pension system (Jefferson, 2009). Conversely, wealth inequality remains a relatively unexplored topic (Deere and Doss, 2006), mainly due to lack of adequate data. Unlike income, wealth is often described at the household level, which generally leads researchers to confine themselves to the study of the distribution *between* households, rather than the distribution *within* household. Nevertheless, an interest in the gender wealth gap (especially so at the household level) is justified for, at least, two reasons. The first motivation relates to the issue of welfare within the population. Wealth is indeed an indicator of well being (Wolff 1998): it usually provides current income and it can help one cope with income shocks, be they due to changes in family structure (divorce, widowhood) or to uncertainties in the labour market. In addition, wealth, in the form of real estate, generally provides the possibility of housing, without incurring the expense of rent. The second reason relates to inequalities within couples and the bargaining power of each spouse. The allocation of assets between spouses may indeed influence the distribution of power within the household. Zagorsky (2003) stresses that savings are cited as a major source of quarrel between spouses, which indicates that financial decisions are discussed between household members. Moreover, the literature on collective household models (Chiappori, 1992)[2], and the differentiated use of wealth by household members, reinforces the interest to be taken in the gender wealth gap.

So far, the lack of data has led the literature to compare the wealth of single individuals (considering gender or marital status) to that of couples (Gornik, 2009). To the best of our knowledge, the article by Sierminska et al. (2010) is the only one, using appropriate data, to analyse the differences within couples; our article follows this research strand. Up to today, there have been no studies focusing on the gender wealth gap in France, and on its potential explanatory factors. In addition, this paper will contribute to the literature by including data on risk aversion as an additional explanatory factor.

We highlight the existence of disparities in wealth between men and women in France. Considering the population as a whole, the gross wealth of men is 15% higher than that of women, in 2009. If we break up wealth into financial assets and real estate (the latter constitutes the largest share of household wealth), we then find that the disparities are much higher for financial assets (about 37%) than for real estate (a gap of only 4% for the main residence). This can be explained by the fact that couples very often own equal shares of their main housing. With regards to the gender wealth gap, the explanation lies in the different characteristics of genders. We therefore regress, using OLS, the wealth total on several variables. We introduce variables describing the career path (such as duration of activity, tenure status or occupation); we are then able to take into account the proximity to the labour market. We also include education variables and variables reflecting the family environment (wealth accumulation is due, for an large share,

---

[2] This literature has been particularly motivated by the fact that men and women can use their income differently and that this could have an impact on the structure of household consumption. For example, Thomas (1990) found that unearned income of the mother has a greater impact on the health of children that the father's income. Therefore, a more equal sharing of wealth may be beneficial in terms of efficiency and not just for the sole purpose of promoting equity.

to family transfers) as well as socio-demographic characteristics (age, marital status,...). We note that being a woman has a significant and positive effect on the amount of assets owned, controlling for other variables. In other words, the gender wealth gap that is observed today is not fully explained by the existing differences in characteristics between genders; the unexplained component can indicate the omission of certain factors or real "discrimination". Consequently, it is natural to question the scope of the explanatory factors, as well as the part that remains unexplained. Indeed, if wealth ownership is to be associated with well being, identifying why women hold less on average than men is particularly important and forms part of the work on inequalities. The identification of the different components involved could then reduce these inequalities. In order to do this, we will decompose the gender wealth gap using various explanatory factors, so as to quantify the effect. For this purpose, we will use the semi-parametric decomposition method, developed by DiNardo, Fortin and Lemieux (1996). This method allows the decomposition of the gap at the mean (as one could do with the usual method of Blinder and Oaxaca) but also at other points of the distribution. In addition, it does not assume a linear relationship between wealth and the various explanatory variables.

The paper is organized as follows: the first part identifies the existing literature, focusing on the determinants that might explain a differentiated accumulation of wealth between genders. The second section presents the data that allow us to distinguish, within the household, the owners of each asset. In the third and fourth part, we describe the methodology, that is to say, the method of semi-parametric decomposition of DiNardo, Fortin and Lemieux (1996) and we present the first results for the gender wealth gap in France in 2003/2004 and 2009/2010.

1. Background and literature review

1.1. Why should the accumulation of wealth differ between men and women ?

The accumulation of wealth can be schematically apprehended in the following simplified equation.

$$W_{t+1} = (1+r)(W_t + A_t + Y_t - C_t)$$

Wealth at time (t+1) depends on wealth at time t, on the rate of return r, on savings in period t $(Y_t - C_t)$ and on transfers received (for example inheritances or donations), which are denoted A_t.

This simplified equation can highlight the reasons explaining why the accumulation of wealth may differ between men and women:

- *Income differences between genders* (Y), which are due to the less favourable career paths of women (more frequent career breaks, lower wages). These differences naturally lead to a greater savings capacity for men (with equal saving rates).

- A *higher risk aversion* may affect portfolio allocation, leading to a more conservative investment behaviour, which may adversely affect the return on assets. The recent literature review of Bertrand (2010) does indeed conclude to the higher risk aversion of women. This conclusion is in accordance with that obtained on French data by Arrondel

et al., 2005. The impact of this difference in risk aversion on the accumulation of wealth seems, however, limited. According to Neelakantan (2010), the fact that women have less risky investment strategies would explain only 10% of the wealth discrepancies[3].

- *Transfers received:* much of the wealth of individuals comes from the inheritances and donations received, especially from ascendants. At first glance, there is no reason to see why this type of flow should differ between men and women. However, other transfers can take place between genders, such as those consequent to marital events (marriage or divorce).

1.2. Existing literature on the gender wealth gap

Lack of suitable data has led researchers to focus on wealth inequalities between married couples and single households. Schmidt and Sevak (2006), using U.S. data (Panel Study of Income Dynamics, PSID), observe that the average net wealth[4] of couples is more than twice that of singles, be they men or women. Part of this gap is explained by differences in socioeconomic characteristics (income, age,...), yet it persists even when these are taken into account. For singles, the observed wealth of men and women is similar; however, including certain individual characteristics leads to the wealth of women falling well below that of men. This result, obtained when considering the entire population, no longer holds when we focus on a sample consisting of younger individuals: the gender differences then become negligible. Possible reasons to explicit this result are a cohort effect or a life-cycle effect (the gender gap widens as individuals get older). Yamakoski and Keister (2006) obtain a similar result, using U.S. data (National Longitudinal Survey of Youth) and focusing on the younger generation of the baby boom (aged 14 to 22 in 1979 and re-interviewed until 2000). The authors, taking into account a number of socio-demographic variables, find only few differences between single men and women. They put more emphasis on the interaction between singles and having children. Those who suffer most in terms of wealth are divorced mothers with children. However, as in other work, the difference in wealth between married couples and single households is very large. Nevertheless, it is important to remember that comparing couples and singles is debatable. It leads one to compare the wealth of households of different sizes. In order to proceed differently, one would need to allocate household wealth to each individual household member, which would require an assumption be made on the allocation key.

More recently, using German data that individualizes wealth within couples (German Socio-Economic Panel, 2002), Sierminska et al. (2010) show that the gender gap in net wealth (within the realm of the general population) averages 30 000 euro, while it stands at around 10 000 euro at the median. This gap is even larger for married individuals, averaging 50 000 euro. Married men hold 56% more wealth than women. Using the semi-parametric decomposition method developed by DiNardo, Fortin and Lemieux (1996), the authors are able to identify the factors

---

[3] Another preference setting of risk behaviour is cautiousness, which enters models of precautionary saving. If women anticipate less stable incomes and they have a higher degree of cautiousness, their precautionary savings will be higher.

[4] Net wealth is equal to total assets (personal property and real estate) held by the individual or the household minus debts.

responsible for these gaps, as well as the share of the gap that remains unexplained. The gender wealth gap stems from the gap in income and in experience on the labour market. This remains true throughout the distribution of wealth, but it is especially so at the median and upper levels. The other factors introduced, such as intergenerational factors (parental characteristics, indicator of inheritance,...) or demographic factors (number of marriages, having children, ...) play little or no part. The article highlights that much of the gender wealth gap remains unexplained. The authors explain that women "derive" more wealth to their characteristics. In other words, the less favourable characteristics of women are an important cause of the wealth gap, yet this gap is reduced by the higher "return" of these characteristics for women.

The existing literature thus concludes that large differences in wealth are to the advantage of men, even though women live longer and, given that they marry older husbands, ought to have more wealth to secure their consumption during retirement (Hurd, 1990).

2. Data used

We use the French "Enquête Patrimoine" (Wealth Survey, hereinafter WS), which describes precisely each of the assets held by each individual in a representative sample of households. This periodic survey took place for the first time in 1986. The two samples we use in this paper were collected in late 2003 and late 2009[5], and include around 22 000 and 25 000 individuals respectively[6]. The objective of these surveys is to provide a basis for the analysis of portfolio preferences, inequalities in wealth (and their long-term evolution), as well as studying accumulation behaviour.

Individuals provide detailed information on each of the assets they hold, be they financial, real estate or business related, and on the inheritances and donations both received and made. Wealth Surveys are designed so as to collect wealth information in the truest manner, given the notorious difficulty in collecting wealth data (Juster and Smith, 1997). The surveys follow a two-step approach: individuals must first list all assets that the household owns, before declaring their worth. The data is then aggregated and compared to macroeconomic data (Cordier and Girardot, 2007). For most wealth components, assets are more or less appropriately reported by households. For example, household responses for real estate correspond fairly closely to macroeconomic aggregates. However, the total of financial assets is much lower than that measured by the National Accounts. This should not affect the quality of our results as long as the statements made do not depend on the gender of the holder (only one member of the household is interviewed).

In addition to the information on assets, the survey provides a comprehensive set of explanatory factors, which details the career path, income[7] and family history (including information on children and on the economic situation of parents). A module was introduced in 1998 and

---

[5] To ensure comparability of the two surveys, we exclude the French overseas departments in 2009, as they were not surveyed in 2003.

[6] The 1998 survey is quite similar, so it should be possible to include it for comparison.

[7] Since the 2003 survey, fiscal data has been matched meaning that households' disposable income can be reconstructed in a more reliable manner (individuals are no longer surveyed on this point in details).

maintained thereafter: it provides information on agents' preferences, including risk aversion.

The Wealth Survey is one of the only databases to individualize financial assets. It offers the possibility to distinguish who owns what (and how much) within each household[8]. For real estate, information is reported at the household level, but individuals are asked to specify the owners of the property; they then assess the share held by each of them (including members outside the household) or the amount that each would derive in case of sale. Two definitions of wealth can be used: gross and net of debt. Both include all financial and real estate wealth for each individual. At this stage, results on net wealth will be presented only for 2009[9].

Legal owner vs. actual holder within couples

The data used allow us to assign each euro of assets to either one of the spouses (as well as to each of the other household members, children, parents,... wherever applicable). However, there may be differences between the legal owner and the actual holder. For example, each spouse may lodge savings on a financial product that belongs to only one of them. In case of divorce and if the most common regime applies (the common property marriage agreement[10] - over 80% of married couples in France are under this regime, see Appendix 1), only the assets acquired during marriage will be divided equally between the spouses. This does not render the studying of the distribution of intra household wealth any less relevant. First of all, under the common property marriage agreement, all assets acquired after the marriage are jointly owned, while assets brought to the marriage (and inheritances received by either spouse) remain individual[11]. The survey lets us examine more distinctively such configurations through a qualitative question on the relative level of wealth prior to partnership and through detailed information on inheritances and donations. Moreover, a fraction of married couples are filed under different regimes (such as a prenuptial agreement to separate personal property or the regime of full community of property). In addition, a significant proportion of couples is not married and, in case of separation, will have no obligation to share. Finally, by analogy with income, having more wealth in one's own name can influence the bargaining power within the household.

At this stage, we consider only assets held by either the household reference person or by their spouse (the assets of other members are used only as controls).

3. Methodology

The aim of this study is to identify the sources of the gender wealth gap. In particular, the objective is to isolate the unexplained portion of the gap from what can be explained by observed characteristics. In most cases, this is done using the Oaxaca-Blinder decomposition (OB) (Oaxaca, 1973). Here, this method would be inadequate for two reasons:

---

[8] Some products are jointly held, that is to say held by the reference person and their spouse. In that case, we divide the amount held into two equal shares that are allocated to both partners. It is only relevant for checking accounts and for a small share of life insurance.

[9] On the 2003 survey, work is in progress to reconstitute net wealth.

[10] "Communauté réduite aux acquêts"

[11] Another marriage agreement exists in which all the assets are equally shared between the two spouses : the full community property regime.

- It makes the strong assumption that the relationship between wealth and explanatory variables, especially income, is linear. In contrast, Barsky et al (2002) emphasize the strong nonlinearity of the function relating wealth and earnings (no functional form is, however, specified by the theory).
- It involves a loss of information by narrowing the analysis to the mean. This is an important point, particularly in the case of the distribution of wealth, which is highly asymmetric.

We will use the method developed by DiNardo, Fortin and Lemieux (1996) (DFL), thus following Cobb-Clark and Hildebrand (2006) and Sierminska (2010). It generalizes the OB decomposition to differences between distributions. The goal is to construct counterfactual distributions, which answer the following question: "what would the wealth distribution of women have been had they the same characteristics as men?". The idea underlying the DFL decomposition is to get these counterfactual distributions by reweighting the actual densities. Thus, the gap between the actual observed distribution and the counterfactual distribution of wealth will allow us to identify the contributions of each factor to the overall wealth gap.

Using the results of a simple linear regression, we put forward four groups of factors: variables describing careers (status on the labour market, unemployment spell), education variables, variables describing family history (bequests, occupation and activity of the father and mother,...) and demographic variables (age, number of children, number of siblings, marital status ...).

Career variables essentially describe individuals' capacity to save and, therefore, to accumulate wealth. It is also the case for education variables; however, education might also reflect different preferences and/or different levels of risk aversion, which can influence tradeoffs between consumption and savings. The variables related to family history describe both inheritances and bequests (which may significantly change the level of wealth) as well as parental characteristics that may determine both the preferences and possible support to wealth accumulation, which are not measured by inheritances. Finally, demographic characteristics describe the position in the life cycle (age), some aspects of the proximity to the labour market, savings capacity (number and age of children), the possibility to anticipate future inheritances (number of siblings beneficiaries) and various strategies of accumulation (marital status).

4. The average gender wealth gap cannot be explained by observed characteristics alone

4.1. The gender gap is significant for financial wealth and lower for real estate

All in all, men's financial wealth exceeds that held by women by 38% in 2003 and 37% in 2009 (Table 1). This difference is especially important for securities (stocks and bonds), men holding twice as much as women (Tables A2, Appendix 2[12]). Taking into account both personal assets and real estate, the wealth of men is 12 to 16% higher than that of women. Indeed, real estate follows a more even distribution between gender for married couples, who represent a significant

---

[12] We aggregate the different financial products into six major categories (Current and Savings accounts, Home savings plan, Employee savings plan, Retirement savings, Other retirement savings, Life insurance, Stocks and bonds and Other financial products).

portion of the population: 84% of homes are equality and jointly owned by spouses (Table 2).

Table 1 – Relative gender wealth gap (men with respect to women) computed on mean wealth

2003/2004	Total	Married	Cohabiting	Divorced living alone	Widowed living alone	Single living alone
Securities	1,38***	1,53***	1,32**	1,22	1,65***	1,32
Main home	1,08***	1,07***	1,31***	1,12	1,42***	0,87
Other real estate	1,14**	1,06	1,40	1,18	1,88*	1,39
Total	1,16***	1,15***	1,32***	1,16	1,55***	1,12
Number of observations	15345	9694	1920	988	1173	1570

Source: French wealth survey 2004. All individuals, bar the last upper percentile.
* Significant at the 10% level, **, at the 5% level, ***, at the 1% level – Testing the equality of the ratio to 1

2009/2010	Total	Married	Cohabiting	Divorced living alone	Widowed living alone	Single living alone
Securities	1,37***	1,52***	1,29**	1,53***	2,09***	1,24
Main home	1,04*	1,03	1,02	1,23**	1,41***	1,03
Other real estate	1,12***	1,07	1,09	2,09***	1,37	0,93
Total	1,12***	1,11***	1,07	1,40***	1,57***	1,06
Number of observations	19414	12666	2362	1065	1515	1806

Source: French wealth survey 2009. All individuals, bar the last upper percentile.
* Significant at the 10% level, **, at the 5% level, ***, at the 1% level – Testing the equality of the ratio to 1

Table 2 – Share of housing owned by each member of the couple

Share	Men living in a couple	Women living in a couple
0 %	3,9	8,6
25 %	1,5	1,8
50 %	84,2	84,2
75 %	1,8	1,5
100 %	8,6	3,9

Source: French wealth survey 2004. Only couples that own their housing.
Note: This distribution is computed with the answers to the following questions: "What do you estimate the resale price of this apartment to be today?" and "What is the % share of the reference person?", "… of their spouse?", "…of other household members?", "…of individuals outside the household?"

When differentiating according to marital status (Table 1), we observe that widows and widowers show large discrepancies; the same is true, to a lesser extent, for couples, be they married or cohabiting. This result seems to run counter to what one might expect, given the literature documenting the fact that couples tend to be formed through a process of selective mating (endogamy), which would likely reduce the wealth gap within couples. For widowers, the differences are particularly large with respect to real estate: not only do widowers more often own their housing than do widows, but the average amount of real estate they own is more important. It will be necessary to further this analysis in order to determine if this effect can be related to age, to the different gender characteristics in this category (widowhood does not affect

women and men with identical characteristics) or to bequests made to children.

There is no difference between men and women for single people living alone. This population certainly covers (although it has to be demonstrated) younger people, that is, people at an early stage of their wealth accumulation process. Finally, the results for divorced individuals differ between 2003 and 2009. In 2003, the wealth gap between genders is not significant for this category (and the gaps are limited anyway). In 2009 however, the result is quite different: the gap appears to be very significant and much larger, approaching that between widows and widowers. However, it is important to note that we consider here only the divorced living alone, which might bias our results (the divorced living in a new union are considered cohabitants).

These differences in total wealth are found throughout the distribution of wealth, but in different proportions. Thus, the gap is larger at the bottom (but the amounts are very low) and the top of the distribution (Table 3).

Tableau 3 - Distribution of wealth by gender in 2003 and 2009

	2003/2004					2009/2010			
	Men	Women	Gap	Ratio		Men	Women	Gap	Ratio
p10	548	357	191	1,54	p10	498	377	121	1,32
p25	6 177	3 332	2 845	1,85	p25	5 524	4 089	1 435	1,35
p50	61 984	52 913	9 071	1,17	p50	86 617	80 375	6 242	1,08
p75	118 041	107 607	10 434	1,10	p75	163 854	151 996	11 859	1,08
p90	211 231	187 129	24 102	1,13	p90	283 841	255 378	28 463	1,11
p95	304 347	256 192	48 155	1,19	p95	404 606	352 090	52 516	1,15
Mean	89 284	77 130	12 154	1,16	Moy	120 141	107 595	12 546	1,12

Source: Wealth survey 2004 and 2009. All individuals, bar the last upper percentile.

4.2. The gender wealth gap cannot be explained solely by differences in observed characteristics

The first step is to use the results of a linear regression on the gross value of financial and real estate assets (thus excluding business assets) to select groups of explanatory variables, which will be used later in the decomposition. We can distinguish four main groups of variables:

- Career variables: status on the job market, duration of activity, and length of unemployment spells
- Education variables
- Family history variables: bequests received, occupation and activity of the father and mother, information about grandparents
- Demographic characteristics: age, number of children, marital status, number of siblings,....

At this stage, risk aversion has not yet been introduced into the regression.

Before going any further in the interpretation, we can see that the gender variable has a significant and positive impact on the amount of assets owned, all other things being equal. This means that the observed differences at the mean are due both to differences in characteristics between genders and to an unexplained effect. The latter, which is positive, results in women's wealth being greater than that of men, once having controlled for many variables (income, hours worked, diploma,...). The decomposition analysis below identifies the main factors at play, as well as the magnitude of the unexplained effect.

Research on the determinants of wealth highlights several variables whose influence on the amount of assets owned is important and significant. For example, Lollivier and Verger (1996) indicate that "income, both current and past, is the single most discriminating factor and so is, through occupation, the dichotomy between employees and self-employed. Age explains only about 10% of inequalities. The presence of descendants to whom to bequest is also a powerful factor in wealth accumulation". We find similar results in Cordier, Houdré and Rougerie (2006): "Income, social class, geographic location, age and inheritances or donations received are discriminating factors in the formation of gross household wealth".

• Earning a high income, being a graduate, being self-employed and close to the labour market are synonymous with higher wealth

As was to be expected (Lollivier, Verger, 1996), wealth and income are positively related. Being a graduate also has a positive and significant effect on the amount of assets held: in fact, the higher the degree, the larger the effect. The duration of activity, which reflects the presence on the labour market (at a given age) and thus the benefit of income, also has a positive effect on the amount of wealth, but to a lesser extent. Conversely, the length of unemployment spells has a negative impact on the amount of wealth and so does having experienced a period of inactivity due to illness. Consistent with the results established in the articles cited above, we find that tenure and social class play an important role, and so does the dichotomy employees/self-employed. The latter have, all things being equal, a higher amount of wealth than the former. It is important to note that we here only takes into account private assets, and thus exclude business assets, which are greater amongst self-employed. This is true whether they are in employment or already retired, although retired self-employed have a level of wealth lower than do those in employment, in relation to employees. This can be put in parallel with the fact that the de-accumulation of assets allows self-employed to offset a lower pension level.

• Wealth is greater with age and for married individuals

In the group of the socio-demographic variables, age plays a large and positive role on the amount of assets owned, in line with life-cycle theory[13]. Having brothers and sisters (especially if they are numerous) decreases the amount of one's wealth, be they the eldest or the youngest (due

---

[13] At this stage, we have introduced age in a linear form. We can also follow other specifications, for example the polynomial form. Indeed, in the basic version of the life-cycle theory, wealth increases with age until retirement and then decreases so as to enable individuals to smooth consumption in the face of declining resources related to the transition to retirement. Empirical evidence does not seem to support this type of profile; no de-accumulation effect is observed during retirement.

to the fact that the inheritance is sub-divided into more shares or because it is more difficult for parents of large families to accumulate). Having children living outside the household plays a negative role, perhaps reflecting the pecuniary support provided to them by their parents. Marital status and type of marriage contract are also highly correlated to the amount of wealth. Being married has a positive impact on wealth compared to living alone; in 2003, this influence goes beyond being in a partnership, as cohabiting individuals do not have a significantly different amount of assets than do singles. However, the impact of marital life is significant in 2009, although the coefficient is lower than that of married individuals living under the common property marriage agreement. This result may be related to the spread and popularity of cohabitation amongst couples: cohabitants are more and more alike married couples. Among married individuals, having signed a contract other than the common property agreement (or the full community)[14] induces a higher amount of wealth; this is especially true for couples who entered into a prenuptial agreement specifying the separation of property and who have the highest levels of wealth. At this stage, we can nevertheless assume that the choice of a this particular regime is endogenous: spouses have chosen this type of marriage contract because their wealth, or at least that of one of them, was significant at the time of marriage (for further details, see the analysis of the various types of marriage contracts by Barthez and Laferrere, 1996).

• *The family environment, especially during youth, plays only a small part. However, having received an inheritance or donation significantly increases the amount of assets held.*

We introduce a last group of variables in the regression reflecting the family environment within which individuals grew up or currently live. Variables that capture the occurrence of problems in youth are introduced (money problems, parent's or sibling's death, divorce or separation of parents,...) but they have no significant impact.

Moreover, a significant amount of people's wealth comes from inheritances and bequests. Variables are introduced in order to track them. As expected, having received an inheritance or a donation significantly increases the amount of assets owned. In addition, having grandparents still alive (that is to say, not having inherited from them yet) impacts negatively on the amount of assets held. Finally, even when they are still alive, having parents who are (or were) owners (especially owners of real estate other than their main residence), or who hold (or have held) securities or life-insurance is synonymous with higher wealth. Several interpretations are possible. Holding securities is for example related to income level (Arrondel, 1996) and thus reflects the social class of parents.

Tableau 4 – Factors explaining the level of financial and real estate wealth for French households in 2003 and 2009

	2003/2004	2009/2010
Gender		
Men	Ref.	Ref.
Women	9,852.33***	13,816.93***
	(1,875.399)	(2,380.72)

---

[14] We cannot distinguish in the 2009 survey the full community regime (see Annex 3). Therefore, in both surveys, we aggregate the two regimes (full property and common property marriage agreement).

Career variables		
Taxable income (annual income/10000)	16,368.51***	18,609.07***
	(1,271.734)	(1,874.27)
Total duration of activity (in years)	618.85***	689.91***
	(90.968)	(115.75)
Duration of unemployment	-1,065.43**	-1,633.47***
	(434.232)	(281.02)
Inactivity due to illness (ref.: none)	-12,170.80***	-13,040.98***
	(4,094.120)	(4,427.83)
Situation on the labour market		
In employment Farmer	642.67	47,199.63***
	(7,086.459)	(9,736.80)
In employment Skilled craftsman	12,838.43*	33,354.87***
	(7,430.154)	(8,055.95)
In employment Tradesman	1,211.89	28,449.74**
	(9,132.778)	(12,022.32)
In employment Business owner	31,314.52	87,373.04**
	(20,681.531)	(34,959.05)
In employment Manager	-11,609.77**	4,462.58
	(5,212.334)	(7,028.92)
In employment Professional	12,999.23	31,089.32**
	(14,381.260)	(14,109.03)
In employment Intermediate profession	-18,208.14***	-8,667.09*
	(3,740.085)	(4,714.57)
In employment Employee	-25,214.95***	-16,240.08***
	(3,231.228)	(3,820.07)
In employment Worker	-23,311.76***	-15,347.39***
	(3,379.607)	(3,942.97)
In retirement former Farmer	-25,001.84***	-24,286.89**
	(7,151.417)	(10,088.29)
In retirement former Other self employed	31,164.85***	50,556.60***
	(9,358.807)	(8,418.63)
In retirement former Manager and Intermediate profession	-5,425.16	19,404.00***
	(5,262.196)	(5,808.41)
In retirement former Employee and Worker	-33,394.72***	-21,546.28***
	(3,777.161)	(4,636.87)
Unemployed former Self-employed	-31,396.97***	-10,786.54
	(8,143.014)	(18,263.66)
Unemployed former Manager	-3,725.24	10,643.77
	(12,764.704)	(14,373.17)
Unemployed former Intermediate profession	-18,222.89**	548.77
	(7,875.617)	(11,271.52)
Unemployed former Employee	-7,600.37	-14,725.46***
	(4,922.977)	(5,275.81)
Unemployed former Worker	-18,885.72***	-15,654.98***
	(4,225.181)	(4,970.79)

Other non-working	Ref.	Ref.
Education variables		
Diploma		
Postgraduate	45,664.52***	64,741.56***
	(6,238.896)	(7,100.64)
Elite graduate studies	67,120.81***	90,901.56***
	(8,894.142)	(10,809.73)
Undergraduate	30,693.34***	46,590.53***
	(4,866.911)	(5,806.13)
Vocational college education	28,604.12***	45,050.86***
	(3,442.048)	(4,718.61)
A-levels for vocational education	26,233.72***	35,686.76***
	(3,803.004)	(4,426.48)
A-levels for general education	26,653.05***	44,667.05***
	(3,675.394)	(5,298.38)
A-levels for technical education + Agricultural diploma	48,966.31**	47,105.52***
	(21,185.681)	(9,305.10)
School certificate	16,122.60***	27,272.01***
	(2,320.223)	(2,929.18)
School certificate for vocational education	17,224.13***	27,304.98***
	(3,290.953)	(4,353.71)
Primary school certificate	-2,831.04	935.46
	(2,563.605)	(3,739.15)
No diploma	Ref.	Ref.
Socio-demographic variables		
Age[a]	992.71***	1,605.47***
	(121.200)	(158.06)
Marital status and type of marriage contract		
Married under a separate property agreement	34,605.36***	66,589.09***
	(5,122.612)	(6,412.95)
Married under the common property regime[b]	16,590.11***	22,761.87***
	(2,987.125)	(3,985.81)
Married under another regime	30,925.39***	22,306.21***
	(10,469.831)	(7,340.40)
Cohabiting	4,170.39	14,790.15***
	(3,055.861)	(3,896.39)
Widowed (and living alone)	10,191.35*	14,558.42**
	(5,301.025)	(6,727.93)
Divorced (and living alone)	3,679.90	9,950.28*
	(4,513.617)	(5,372.37)
Single (and living alone)	Ref.	Ref.
Number of siblings and rank		
Eldest of 2	-16,483.99***	-11,312.79**
	(3,861.705)	(4,730.59)

Eldest of 3	-22,226.10***	-12,298.12**
	(3,957.607)	(4,868.85)
Eldest of 4	-21,924.83***	-16,245.50***
	(4,693.782)	(6,054.14)
Eldest of 5 and more	-22,190.94***	-22,939.42***
	(4,889.750)	(5,675.02)
Second of 2	-18,847.00***	-6,609.99
	(3,928.298)	(4,598.84)
Second of 3	-15,086.03***	-14,599.45***
	(3,853.200)	(4,398.44)
Second of 4	-20,853.31***	-16,301.24***
	(3,984.044)	(4,657.64)
Second of 5 and more	-26,786.98***	-18,076.99***
	(3,515.703)	(4,254.06)
Only child	Ref.	Ref.
Geographical area		
Paris region	Ref.	Ref.
Wider Paris area	-16,186.20***	-23,305.06***
	(2,702.523)	(3,447.27)
North of France	-18,448.96***	-16,501.94***
	(3,000.472)	(3,940.22)
East of France	-11,341.30***	-18,329.47***
	(3,216.272)	(4,118.28)
West of France	-6,470.06**	-14,775.15***
	(2,880.536)	(3,709.93)
South-west of France	-13,533.66***	-19,583.36***
	(3,082.243)	(4,073.44)
Centre-east of France	-4,967.45	-6,661.38
	(3,169.379)	(4,090.38)
Mediterranean area	883.87	4,735.26
	(3,191.918)	(4,786.86)
Number of children		
0 to 4 years of age	-307.80	67.99
	(1,419.889)	(1,842.92)
5 to 11 years of age	-1,226.49	4,868.55***
	(1,132.545)	(1,528.77)
Outside the household	-1,593.85**	-1,552.42
	(660.856)	(1,121.89)
Born in France	6,891.32***	3,964.93
	(2,452.030)	(3,627.23)
Family history variables		
Mother's activity (during the youth of the individual being considered)		
Little activity	-1,267.98	-5,422.25*

	(2,488.103)	(2,860.14)
Family help	1,616.22	-1,785.16
	(3,464.216)	(4,157.67)
Self-employed	8,326.50*	-2,905.94
	(4,878.214)	(6,054.11)
Professional	-15,565.44	-24,866.12
	(11,158.299)	(15,938.16)
Manager	-11,387.67**	-19,869.90**
	(5,424.710)	(8,628.80)
Intermediate profession, employee, worker	-5,039.22***	-2,990.16
	(1,931.356)	(2,530.08)
No activity/Other	Ref.	Ref.
Father's activity (during the youth of the individual being considered)		
Self-employed	11,083.73***	11,611.68**
	(3,838.526)	(4,602.77)
Professional	12,638.71	22,967.68**
	(8,945.885)	(10,928.23)
Manager	7,459.33*	14,619.39***
	(4,036.125)	(5,310.19)
Intermediate profession, employee, worker	5,357.25*	4,265.14
	(2,775.693)	(3,637.30)
No activity/Other	Ref.	Ref.
Significant money issues during the youth of the individual being considered		
Yes, often	-507.08	5,179.20
	(7,965.258)	(6,402.67)
Yes, during certain times	-611.16	10,915.55*
	(8,147.002)	(6,579.22)
No, although the family was not very rich	-266.82	8,966.18
	(7,947.016)	(6,221.90)
No, very seldom or never	4,420.03	14,093.52**
	(7,989.652)	(6,389.96)
Doesn't know/No answer	Ref.	Ref.
Significant family events during the youth of the individual being considered		
Death of an ascendant (father, mother) (Ref. = no)	-3,238.83	-890.92
	(2,385.206)	(2,931.68)
Illness, disability, serious accident of the father or mother (Ref. = no)	-1,654.83	-2,748.57
	(2,527.303)	(3,051.94)
Separation or divorce of the parents (Ref. = no)	-3,986.02*	-6,000.52**
	(2,381.194)	(3,058.01)
Premature death of a sibling (Ref. = no)	-2,277.51	-4,070.97
	(3,238.418)	(3,904.28)
Maternal grand-parents still alive (Ref. = no)	-14,998.18***	-12,762.20***

	(1,975.527)	(2,744.83)
Paternal grand-parents still alive (Ref. = no)	-11,726.32***	-9,409.24***
	(2,111.566)	(2,860.25)
Mother still alive (Ref. = no)	4,405.28*	5,567.32**
	(2,323.742)	(2,801.86)
Father still alive (Ref. = no)	-1,873.15	-5,036.24**
	(1,992.889)	(2,555.45)
Parents own their main housing (Ref. = no)	5,783.74***	8,240.86***
	(1,613.635)	(2,193.53)
Parents own other real estate property (Ref. = no)	19,048.09***	23,863.75***
	(3,140.504)	(3,453.87)
Parents own some land (Ref. = no)	1,265.24	-385.55
	(2,373.618)	(2,823.10)
Parents own securities, life-insurance (Ref. = no)	12,082.27***	14,566.79***
	(2,474.443)	(3,028.24
Parents own their work tools or their farm (Ref. = no)	-219.32	2,728.48
	(3,139.509)	(3,662.46)
Has received a donation or inheritance (Ref. = no)	37,637.89***	41,401.73***
	(2,070.267)	(2,562.24)
Constant	-23,659.46**	-76,626.04***
	(10,422.372)	(10,565.77)
Number of observations	15345	19414
R-squared	0.311	0.319

Note: Robust standard deviations between brackets
 *** p<0.01, ** p<0.05, * p<0.1
Sources: French Wealth Surveys 2003-2004 and 2009-2010.
(a) Age: exact age on the day of the interview
(b) The variable "Married under the common property regime" also includes couples married under the default regime and those married under the full community property regime

It is interesting to note that the sign of the effects of different variables, as well as their significance level, is (in almost all cases) the same in 2003 and 2009. The level of the coefficients of many variables is, however, higher in 2009 than in 2003, which reflects the strong growth in average assets over the period (we reasoned in € 2003 in both cases). This sharp increase is not uniform accross population categories.

The share of variance being explained is relatively low, reaching 31%, which is consistent with other works (Lollivier and Verger, 1996, Cordier et al. 2006).

4.3. Decomposition of the gender wealth gap

The method decomposing differences between two populations, developed by DiNardo, Fortin and Lemieux (1996) (DFL), sets out to construct counterfactual distributions, which answer the following question: "what would have been the distribution of men's wealth had they had the same characteristics as women?". These counterfactual distributions are obtained by reweighting

the actual densities.

More specifically, we follow the following decomposition of gender gaps in the distribution of wealth:

$$g^M - g^F = \underbrace{\left(g^M - g^1_{CF}\right)}_{\text{Effect 1}} + \underbrace{\left(g^1_{CF} - g^{12}_{CF}\right)}_{\text{Effect 2}} + \underbrace{\left(g^{12}_{CF} - g^{123}_{CF}\right)}_{\text{Effect 3}} + \underbrace{\left(g^{123}_{CF} - g^{1234}_{CF}\right)}_{\text{Effect 4}} + \underbrace{\left(g^{1234}_{CF} - g^F\right)}_{\text{Residual effect}}$$

g^M is the density of wealth for men ($F = 0$). It is written as follows:

$$g^M = \iiiint \gamma^M \left(w, v_1, v_2, v_3, v_4 \middle| F = 0\right) dv_1 v_2 v_3 v_4$$

Similarly, the density for women is written: $g^F = \iiiint \gamma^F \left(w, v_1, v_2, v_3, v_4 \middle| F = 1\right) dv_1 v_2 v_3 v_4$

These two densities can be estimated using a nonparametric regression (kernel estimator), for example using the Stata command "kdensity".

Each counterfactual is developed by assigning to men the distribution of either group of observable characteristics. Thus, we can rewrite:

$$g^M = \iiiint \gamma^M \left(w, v_1, v_2, v_3, v_4 \middle| F = 0\right) dv_1 v_2 v_3 v_4$$
$$= \iiiint f^M \left(w \middle| v_1, v_2, v_3, v_4, F = 0\right) h_{v_1 \middle| v_2, v_3, v_4} \left(v_1 \middle| v_2, v_3, v_4, F = 0\right)$$
$$h_{v_2 \middle| v_3, v_4} \left(v_2 \middle| v_3, v_4, F = 0\right) h_{v_3 \middle| v_4} \left(v_3 \middle| v_4, F = 0\right) h_{v_4} \left(v_4 \middle| F = 0\right) dv_1 v_2 v_3 v_4$$

If we now consider the first group of variables: the counterfactual is the density calculated by assuming that men have (for these factors only) the distribution of women, everything else remaining unchanged.

$$g^1_{CF} = \iiiint f^M \left(w \middle| v_1, v_2, v_3, v_4, F = 0\right) h_{v_1 \middle| v_2, v_3, v_4} \left(v_1 \middle| v_2, v_3, v_4, F = 1\right)$$
$$h_{v_2 \middle| v_3, v_4} \left(v_2 \middle| v_3, v_4, F = 0\right) h_{v_3 \middle| v_4} \left(v_3 \middle| v_4, F = 0\right) h_{v_4} \left(v_4 \middle| F = 0\right) dv_1 v_2 v_3 v_4$$
$$= \iiiint f^M \left(w, v_1, v_2, v_3, v_4 \middle| F = 0\right) \frac{h_{v_1 \middle| v_2, v_3, v_4} \left(v_1 \middle| v_2, v_3, v_4, F = 1\right)}{h_{v_1 \middle| v_2, v_3, v_4} \left(v_1 \middle| v_2, v_3, v_4, F = 0\right)} dv_1 v_2 v_3 v_4$$
$$= \iiiint f^M \left(w, v_1, v_2, v_3, v_4 \middle| F = 0\right) \psi_{v_1 \middle| v_2, v_3, v_4} dv_1 v_2 v_3 v_4$$

We can therefore estimate the counterfactual by using a kernel estimator and weighting by the term:

$$\psi_{v_1 \middle| v_2, v_3, v_4} = \frac{h_{v_1 \middle| v_2, v_3, v_4} \left(v_1 \middle| v_2, v_3, v_4, F = 1\right)}{h_{v_1 \middle| v_2, v_3, v_4} \left(v_1 \middle| v_2, v_3, v_4, F = 0\right)}$$

This term can be estimated using two probit (or logit) on the variable F.
Indeed,

$$h(v_1|v_2,v_3,v_4,F=i) = \frac{h(v_1,v_2,v_3,v_4,F=i)}{h(v_2,v_3,v_4,F=i)} = \frac{P(F=i|v_1,v_2,v_3,v_4)h(v_1,v_2,v_3,v_4)}{P(F=i|v_2,v_3,v_4)h(v_2,v_3,v_4)}, \ i=0,\ 1$$

Hence

$$\frac{h(v_1|v_2,v_3,v_4,F=1)}{h(v_1|v_2,v_3,v_4,F=0)} = \frac{P(F=1|v_1,v_2,v_3,v_4)P(F=0|v_2,v_3,v_4)}{P(F=0|v_1,v_2,v_3,v_4)P(F=1|v_2,v_3,v_4)}$$

We can therefore estimate the probability of being a woman ($F=1$) using a probit or logit on all the factors 1, 2, 3 and 4 on the one hand, and on factors 2, 3 and 4 on the other hand.

An estimator of $\psi_{v_1|v_2,v_3,v_4}$ is then:

$$\hat{\psi}_{v_1|v_2,v_3,v_4} = \left(\frac{\hat{\Lambda}_{v_1,v_2,v_3,v_4}}{1-\hat{\Lambda}_{v_1,v_2,v_3,v_4}}\right)\left(\frac{1-\hat{\Lambda}_{v_2,v_3,v_4}}{\hat{\Lambda}_{v_2,v_3,v_4}}\right), \text{ where } \Lambda \text{ is the normal law or the logistic law depending}$$

on whether one uses a probit or a logit.

Similarly, a second counterfactual assigns to men the distribution of women for factors 1 and 2:

$$g_{CF}^{12} = \iiiint f^M\left(w|v_1,v_2,v_3,v_4,F=0\right)h_{v_1|v_2,v_3,v_4}\left(v_1|v_2,v_3,v_4,F=1\right)$$
$$h_{v_2|v_3,v_4}\left(v_2|v_3,v_4,F=1\right)h_{v_3|v_4}\left(v_3|v_4,F=0\right)h_{v_4}\left(v_4|F=0\right)dv_1v_2v_3v_4$$
$$= \iiiint f^M\left(w,v_1,v_2,v_3,v_4|F=0\right)\frac{h_{v_1|v_2,v_3,v_4}\left(v_1|v_2,v_3,v_4,F=1\right)}{h_{v_1|v_2,v_3,v_4}\left(v_1|v_2,v_3,v_4,F=0\right)}\frac{h_{v_2|v_3,v_4}\left(v_2|v_3,v_4,F=1\right)}{h_{v_2|v_3,v_4}\left(v_2|v_3,v_4,F=0\right)}dv_1v_2v_3v_4$$
$$= \iiiint f^M\left(w,v_1,v_2,v_3,v_4|F=0\right)\psi_{v_1|v_2,v_3,v_4}\psi_{v_2|v_3,v_4}dv_1v_2v_3v_4$$

As before, $\psi_{v_2|v_3,v_4}$ is estimated as follows:

$$\hat{\psi}_{v_2|v_3,v_4} = \left(\frac{\hat{\Lambda}_{v_2,v_3,v_4}}{1-\hat{\Lambda}_{v_2,v_3,v_4}}\right)\left(\frac{1-\hat{\Lambda}_{v_3,v_4}}{\hat{\Lambda}_{v_3,v_4}}\right)$$

so that the weight for this counterfactual is

$$\hat{\psi}_{v_1|v_2,v_3,v_4}\hat{\psi}_{v_2|v_3,v_4} = \left(\frac{\hat{\Lambda}_{v_1,v_2,v_3,v_4}}{1-\hat{\Lambda}_{v_1,v_2,v_3,v_4}}\right)\left(\frac{1-\hat{\Lambda}_{v_3,v_4}}{\hat{\Lambda}_{v_3,v_4}}\right)$$

The two other counterfactuals are determined in the same way by weighting them with the following:

$$\hat{\psi}_{v_1|v_2,v_3,v_4}\hat{\psi}_{v_2|v_3,v_4}\hat{\psi}_{v_3|v_4} = \left(\frac{\hat{\Lambda}_{v_1,v_2,v_3,v_4}}{1-\hat{\Lambda}_{v_1,v_2,v_3,v_4}}\right)\left(\frac{1-\hat{\Lambda}_{v_4}}{\hat{\Lambda}_{v_4}}\right)$$

and

$$\hat{\psi}_{v_1|v_2,v_3,v_4}\hat{\psi}_{v_2|v_3,v_4}\hat{\psi}_{v_3|v_4}\hat{\psi}_{v_4} = \left(\frac{\hat{\Lambda}_{v_1,v_2,v_3,v_4}}{1-\hat{\Lambda}_{v_1,v_2,v_3,v_4}}\right)\left(\frac{\hat{P}(F=0)}{\hat{P}(F=1)}\right)$$

$\hat{P}(F=0)$ and $\hat{P}(F=1)$ are estimated by the proportion of men and women respectively.

Thus the gaps between genders at the various points of the distribution (for example, the median) are established as the sum of the gaps of the element in focus against the different counterfactuals.

There are actually 24 (4!) decomposition possibilities: here we started with factor 1 followed by factor 2, then 3, then 4, but we could very well have started with factor 2 followed by factor 1, then 3 then 4. Indeed, the result might depend on the order chosen. Therefore, computations are made for all 24 possibilities and we then consider only the mean of those 24 possible effects.

Standard deviations are calculated by bootstrap on the entire procedure.

Insofar as the medium of the variable whose density is being estimated (wealth) is relatively wide, even when we set aside the last percentile, and because the concentration in the bottom of the distribution is quite sizeable, we transform the wealth variable with a Möbius transformation (Clements et alii, 2003): $z = (x^\alpha - R^\alpha)/(x^\alpha + R^\alpha)$. R is chosen as the median of the wealth distribution and α is determined by optimization. We retrieve the density of the non-processed variable by multiplying the estimated density by the gradient of the transformation. This transformation reduces the skewness of the distribution to be estimated. This method however requires one to work on a positive variable, so that it cannot be applied to net assets.

Results

Tables 5a and 5b present the results of the decomposition of the wealth gap at various points of the distribution following the method of DiNardo, Fortin and Lemieux (1996).

We can see the strong influence of variables characterizing the situation on the labour market and the current income[15] of the individual. At all the examined points of the distribution (p10, p25, median, p75 and p90), the difference between the wealth of men with their own characteristics and that of men with the income distribution and current and past situation on the labour market of women is more important than the gap between men and women. For example, in 2009, it represents € 24 728 versus € 4 911 at the median. This means that were we to "give" men the income and the labour market situation of women, their assets would be lower than those of women, suggesting that women derive more wealth than men from their own characteristics. For the other characteristics being considered, the effects follow the opposite direction. Nevertheless, for the diploma, the influence is generally not statistically different from the gross effect; for

---

[15] It would have been interesting to consider the household's permanent income, instead of current income. Unfortunately, the lack of panel data does not allow this. We should note, however, that in times of crisis, as was the case during the 2009/2010 survey, transitory income may play a role in and of itself, especially so when considering financial wealth.

example, at the median, we have € 2 728 with a standard deviation of € 2 965 compared with the initial gap of € 4 911 with a standard deviation of € 2 295.

The unexplained effect, which measures the gap between the wealth of men who have been attributed all the observed characteristics of women and the wealth of women, can be interpreted as the return on characteristics. The fact that this gap is negative at all points of distribution suggests that women derive more wealth from their characteristics than do men.

Although it subsists at all points of the distribution, this effect is more marked towards the bottom, especially because men in the upper decile or quartile appear to benefit more than women from their demographic characteristics. This could be due to the fact that divorced and widowed men living alone have significantly higher wealth than do divorced and widowed women (Table 1).

Table 5a – Decomposition of the gender wealth gap (2004) following the DFL method

	Wealth gap	Income and labour market situation	Diploma	Intergenerational factors and inheritances	Demographic characteristics	Unexplained effect
p10	234	507	39	-20	-59	-234
St dev.	81	64	24	20	32	79
p25	4 095	8 064	556	-341	-1 024	-3 159
St dev.	1 036	1 044	190	224	451	515
P50	7 138	28 054	2 682	907	-1 219	-23 285
St dev.	1 767	3 575	976	895	1 728	5 688
P75	10 648	25 752	2 428	361	-6 309	-11 584
St dev.	2 454	3 125	1 204	963	2 275	4 226
P90	23 519	38 399	7 859	839	-13 632	-9 946
St dev.	5 438	8 552	4 086	2 489	6 545	11 565

Source: French wealth survey 2003-2004. All individuals, bar the last upper percentile.
Standard deviations determined by bootstrap

Table 5b - Decomposition of the gender wealth gap (2009) following the DFL method

	Wealth gap	Income and labour market situation	Diploma	Intergenerational factors and inheritances	Demographic characteristics	Unexplained effect
p10	149	496	50	25	25	-446
St dev.	*109*	*84*	*40*	*24*	*44*	*105*
p25	4 167	11 248	1 327	-806	-1 352	-6 250
St dev.	*2 356*	*2 061*	*846*	*396*	*809*	*1 262*
P50	4 911	24 728	2 728	-74	-1 786	-20 685
St dev.	*2 295*	*6 269*	*2 965*	*681*	*1 291*	*3 973*
P75	11 310	25 856	4 874	-260	-7 403	-11 756
St dev.	*3 355*	*8 137*	*2 782*	*1 127*	*1 732*	*6 541*
P90	29 614	56 152	1 091	124	-14 658	-13 096
St dev.	*6 275*	*7 988*	*3 115*	*2 482*	*4 366*	*9 181*

Source: French wealth survey 2009-2010. All individuals, bar the last upper percentile.
Standard deviations determined by bootstrap

The 2009/2010 wealth survey is used to calculate the net wealth of individuals by deducting, from gross assets, the capital still outstanding on real estate and other personal loans (in particular consumption loans). These loans are filled out at the household level; thus, it is necessary to attribute them to each household member. In order to do so, we break down the mortgages in proportion to the share of real estate owned (distinguishing between loans used to purchase the main residence and those used to purchase other real estate); we also break down consumer loans by allocating half of the outstanding capital to the reference person and the other half to their spouse. We can then decompose net wealth in the same way as we decomposed gross wealth (Table 6).

Tableau 6 - Decomposition of the gender wealth gap (2009) following the DFL method – Net wealth

	Wealth gap	Income and labour market situation	Diploma	Intergenerational factors and inheritances	Demographic characteristics	Unexplained effect
p10	164	780	14	41	-14	-657
St dev.	207	161	96	43	78	238
p25	1643	4476	479	14	-534	-2792
St dev.	609	689	326	159	242	472
P50	6734	29853	4531	534	-1410	-26773
St dev.	2280	6137	2611	1133	1319	5661
P75	11662	27567	4736	-27	-6488	-14126
St dev.	3385	9394	3876	1235	1714	7632
P90	23488	50891	958	602	-15987	-12976
St dev.	6215	6556	2483	2002	4582	9528

Source: French wealth survey 2009-2010. All individuals, bar the last upper percentile.
Standard deviations determined by bootstrap

Comparing[16] Table 6 with the decomposition of gross assets shows that the results are quite close: there is a strong effect of income and labour market situation. Nevertheless, the conclusions with respect to the greater benefits derived by women still hold.

Conclusion

The Wealth Surveys, dating from 2003/2004 and 2009/2010, reveal significant differences in the assets held by men and women. On average, men own about 15% more wealth than women. The differences are, for a large part, due to financial assets – a finding that also holds for married couples and those living with a partner. OLS estimates show, however, that, all other things being equal (that is to say once having controlled for income, employment status and work experience, qualifications and household composition), women hold more wealth than men. Using a semi-

---

[16] We cannot fully compare the results: because net worth takes negative values, it is not possible to use the Möbius transformation ahead of the decomposition. However, comparing gross wealth shows that the results (with or without prior Möbius transformation) are quite close; the transformation gives better results towards the bottom of the distribution.

parametric decomposition of differences, such as the one developed by DiNardo, Fortin and Lemieux (1996), we are able to show that the differences, at all points of the distribution (p10, p25, median, p75 and p90), are mainly due to composition effects following observed characteristics, in particular income, labour market situation and experience. Indeed, were we to attribute to men the same distribution as to women for these particular characteristics, the wealth gaps would be even greater. The reverse is true for the other characteristics (diploma, intergenerational and demographic variables), although the effects are more modest. These results, as well as the estimated residual differences, suggest that women derive more wealth from their characteristics than do men; the latter do have, however, more wealth on average (and at other points of the distribution) because they have, on average, "better" characteristics than women. It remains to be understood why women achieve higher wealth returns from their characteristics. In particular, reviewing portfolio behaviour and including measures of risk aversion (which are available in the 2009 survey) could help us determine whether it is the way women save that is, in and of itself, more efficient. Moreover, a closer examination of the role of marital status could illustrate whether gaining more wealth, for given characteristics, is due to the fact that women tend to form partnerships with men who have "better" characteristics and, consequently, higher wealth.

References

Arrondel L., 1996, « Patrimoine des ménages : toujours le logement, mais aussi les actifs de précaution », *Economie et statistique*, n° 296 -297, 1996.

Arrondel L., Masson A., Verger D., 2005, « Mesurer les préférences individuelles à l'égard du risque », *Economie et Statistiques*, n° 374-375.

Barsky R., Bound J., Charles K., Lupton J., 2002, "Accounting for the Black-White Wealth Gap: A Nonparametric Approach", Journal of the American Statistical Association, Vol. 97, No. 459, pp. 663-673

Barthez A.., Laferrère A., 1996, « Contrats de mariage et régimes matrimoniaux », Economie et Statistique, n° 296-297.

Bertrand M., 2010, "New Perspectives on Gender", Handbook of Labor Economics, Volume 4b, p. 1545-1591.

Cobb-Clark D., Hildebrand V., 2006, "The wealth of Mexican Americans", Journal of Human *Resources* Vol. 41.

Chiappori, P.-A., 1992, "Collective Labor Supply and Welfare." *Journal of Political Economy*, 100, p. 437-467.

Clements A.E., Hurn, A.S. et Lindsay K.A., "Improving the reliability of nonparametric regression estimates with mapping schemes."

Cordier M., Houdré C., Rougerie C., 2006, « Les inégalités de patrimoine des ménages entre 1992 et 2004 », Les revenus et le patrimoine des ménages, Insee.

Cordier M., Girardot P., 2007, Comparaison et recalage des montants de l'enquête Patrimoine sur la comptabilité nationale. WP DSDS, INSEE No.F0702

Deere C., Doss C., 2006, "The gender asset gap: What do we know and why does it matter?", *Feminist Economics* No.1-2, Vol. 12.

DiNardo, J., Fortin, N., Lemieux, T., 1996, "Labour market institutions and the distribution of wages, 1973-1992: a semi-parametric approach", *Econometrica* Vol. 64.

Gornick C., Sierminska, E., Smeeding, T. M. (2009), "The Income and Wealth Packages of Older Women in Cross-National Perspective", *Journal of Gerontology: Social Sciences*, 64B(3): 402-414

Guichard-Claudic Y., Testenoire A. et D. Trancart, 2009, « Distances et proximité conjugales en situation d'homogamie et d'hétérogamie », Chap. 8, in *Entre travail et famille: des arrangements de couples aux pratiques des employeurs*, INED-La découverte, Paris, 500 p.

Jefferson T., 2009, 'Women and Retirement Pensions: A Research Review', *Feminist Economics*, 15: 4, 115 — 145

Juster T., Smith, J., 2007, "Improving the quality of economic data: lessons from the HRS and AHEAD," *Journal of American Statistical Association* No.440, Vol. 92

Kunze A., 2008, "Gender wage gap studies: Consistency and decomposition" in: *Empirical Economics*, 35 (1), 63-76

Lollivier S., Verger D., 1996, « Patrimoine des ménages : déterminants et disparités », Économie et Statistique, n° 296-297.

Neelakantan U., 2010, Estimation and impact of gender differences in risk tolerance, *Economic Inquiry* No.1, Vol. 48.

Oaxaca R., 1973, Male-female wage differentials in urban labour markets. *International Economic Review* No.14.

Sierminska E., Frick J., Grabka M., 2010, Examining the gender wage gap. *Oxford Economic Papers* No.62.

Schmidt L., Sevak P., 2006, Gender, marriage, and asset accumulation in the United States. *Feminist Economics* No.1-2, Vol. 12.

Thomas D., 1990, Intra-Household Resource Allocation: An Inferential Approach.*Journal of Human Resources* No.4, Vol. 25.

Wolff E., 1998, "Recent Trends in the Size Distribution of Household Wealth." Journal of Economic Perspectives 12(3): 131-50.

Yamokoski A., Keister L., 2006, "The Wealth of Single Females: Marital Status and Parenthood in the Asset Accumulation of Young Baby Boomers in the United States", *Feminist Economics* No.1-2, Vol. 12.

Zagorsky J., 2003, Husbands' and Wives' View of the Family Finance, *The Journal of Socio-Economics* 32 (2).

Appendix 1 - Type of marriage contracts

In the 2003 survey, married couples were asked about the possibility of having subscribed a marriage contract. If the answer was yes, they were asked which type of contract they had filed under. One of the possible answers corresponds to the statutory default (community of acquests regime), which may seem surprising. In fact, Barthez and Laferrère (1996) indicate that, although reporting errors cannot be excluded, there also are regimes that are very close to the default regime but have a particular clause. In the 2009 survey, the question asked is different. Indeed, the question is no longer asked in two stages (contract or not + which type); instead, individuals were asked directly about the type of marriage contract they had filed under.

The results obtained with the 1991 and 2003 surveys can be compared. The vast majority of married couples fall under the community of acquests (respectively 88.5% and 85.5% for 1991 and 2003); it is the one that applies to all spouses who have not explicitly subscribed a marriage contract and represents the most common scenario (respectively 84% and 83.5%). "Each spouse retains the personal assets acquired before marriage or which they will inherit during the union. All other acquisitions of either one of the spouses are joint property of the couple; each spouse is deemed to be entitled to half in crucial moments such as divorce and transfers to children"(Barthez and Laferrère, 1996, p. 134).

Table A1.1. - Type of marital regime, 2003-2004 survey

Type de regime	At the time of marriage	At the time of interview
Amongst couples who subscribed a contract at the time of marriage (16,5%)		
Total	**100,0**	**100,0**
Default regime (community of acquests)	32,8	29,6
Separation of assets	52,4	51,4
Full community	11,2	13,8
Other	3,6	5,3
Amongst couples who did not subscribe a contract at the time of marriage (83,5%)		
Total	100,0	100,0
Default regime (community of acquests)	100,0	96,5
Separation of assets	0,0	0,6
Full community	0,0	2,2
Other	0,0	0,6

Source: Wealth survey 2003-2004
Field: couples married at the time of survey

The share of married couples who fall under the statutory regime has somewhat decreased compared to the 1991/1992 survey, in favour of the regime of separation of assets. In the early 90s, 6.4% opted for the separation of assets, 3.4% for the full community and 1.8% for another type of contract.

The 2009 survey shows significant dissimilarities. The share of married couples falling under the statutory regime is lower (72%) and the full community regime much more frequent (Table

A1.2). At this stage, we have no satisfactory explanation to provide; it likely is a failure to report due to a misunderstanding of the difference between the two community regimes (full and reduced to acquests). Indeed, if we consider only (in the 2009 survey) those who married before 2004, we observe that the distribution of marital contracts differs very little from that observed on all households, yet it differs markedly from the one measured in 2003/2004, which should not be the case (unless we assume that deaths between the two surveys are sufficient to distort significantly the distribution). For this reason, we choose to consider together the two community regimes.

Tableau A1.2 - Type of marital regime, 2009-2010 survey

Contract subscribed at the time of marriage	At the time of marriage	At the time of the interview
Total	**100,0**	**100,0**
Default regime (community of acquests)	72,0	70,4
Separation of assets	9,7	10,0
Full community	16,7	17,8
Other	1,6	1,7

Source: Wealth survey 2009-2010
Field: couples married at the time of survey

Appendix 2 – Decomposition of the financial wealth of men and women in 2003 and 2009

Table A2.1 – Decomposition of the financial wealth of men (2003/2004)

	Married	Cohabiting	Divorced*	Widowers*	Singles	Total
Savings account	4 908	3 453	5 665	13 562	4 835	4 971
Home savings plan	3 233	2 670	2 477	2 819	3 393	3 113
Income savings	1 369	725	1356	1 454	726	1 204
Stocks and bonds	4 210	1 413	3941	6 750	5 357	3 974
Life insurance	5 587	2 524	3278	9 404	3 017	4 831
Pension savings	901	288	603 7	539	1 033	797
Other products	547	179	205	733	990	527
Total financial wealth	20 754	11 251	17 526	35 262	19 352	19 417
Real estate wealth (main residence)	60 735	33 318	50 601	74 149	26 854	52 758
Other real estate wealth	15 111	9615	14 220	22 489	11 027	14 004
Total wealth	99 849	55 751	84 467	137 961	61 306	89 284
Number of observations	4 847	960	358	195	716	7076

Source: Wealth survey 2003/2004. Reference person and their spouse. All households, bar the last upper percentile.
* and living alone

Table A2.2 – Decomposition of the financial wealth of women (2003/2004)

	Married	Cohabiting	Divorced*	Widowers*	Singles	Total
Savings account	4 362	3 002	4 166	7 117	4 230	4 507
Home savings plan	2 488	2 218	2 676	2 321	3 082	2 503
Income savings	527	381	635	30	443	445
Stocks and bonds	1 975	1 270	1 794	4 160	2 837	2 231
Life insurance	3 396	1 224	3 680	6 262	3 501	3 509
Pension savings	633	299	739	1 330	339	658
Other products	206	117	680	137	242	225
Total financial wealth	13 588	8 510	14 370	21 357	14 675	14 078
Real estate wealth (main residence)	56 878	25 365	45 172	52 266	30 960	48 790
Other real estate wealth	14 292	6 873	12 046	11 965	7 916	12 243
Total wealth	86 893	42 392	72 537	88 871	54 586	77 130
Number of observations	4847	960	630	978	854	8269

Source: as Table A2.1

Table A2.3 – Decomposition of the financial wealth of men (2009/2010)

	Married	Cohabiting	Divorced*	Widowers*	Singles	Total
Savings account	8108	4453	8816	19578	7883	7851
Home savings plan	2869	2122	2380	3897	2709	2720
Stocks and bonds	9135	4568	8248	17224	5883	8072
Life insurance	13105	3237	10547	31063	11075	11508
Pension savings	1219	471	635	1210	837	996
Other products	2471	1750	3182	3379	579	2138
Total financial wealth	36907	16601	33809	76351	28966	33286
Total wealth	166375	93985	162575	228247	96809	145160
Number of observations	7699	1489	492	335	1152	11167

Source: Wealth survey 2009/2010. Reference person and their spouse. All households, bar the last upper percentile.
* and living alone

Table A2.4 – Decomposition of the financial wealth of women (2009/2010)

	Married	Cohabiting	Divorced*	Widowers*	Singles	Total
Savings account	6813	4367	7044	11510	7251	7130
Home savings plan	2299	2074	2110	2174	3027	2324
Stocks and bonds	4048	1857	3415	6318	3332	3867
Life insurance	7774	3056	5720	15267	7636	7854
Pension savings	915	331	605	859	446	732
Other products	643	241	408	683	650	568
Total financial wealth	22493	11927	19302	36810	22343	22474
Total wealth	146489	85478	110645	144116	88289	126442
Number of observations	7706	1487	808	1430	1384	12815

Source: as Table A2.4

Appendix 3

Tableau A3.1 – Factors explaining the level of financial and real estate wealth of French households in 2003 – separate estimations for men and women

	Men	Women
Career variables		
Taxable income (annual income/10000)	17,160.03***	17,894.08***
	(1,647.764)	(1,882.367)
Total duration of activity (in years)	1,845.02***	492.21***
	(219.408)	(110.424)
Duration of unemployment	-868.03	-746.76
	(600.079)	(598.159)
Inactivity due to illness (ref.: none)	-9,583.74	-7,098.76
	(7,105.979)	(5,243.298)
Situation on the labour market		
In employment Farmer	26,762.69**	-23,654.91**
	(10,825.209)	(9,181.462)
In employment Skilled craftsman	23,439.71**	23,746.99*
	(10,461.587)	(13,605.646)
In employment Tradesman	14,151.43	27.41
	(15,484.199)	(9,586.625)
In employment Business owner	42,054.40*	7,142.77
	(24,649.232)	(31,621.683)
In employment Manager	-7,108.17	-3,107.41
	(8,243.094)	(8,094.385)
In employment Professional	11,298.64	32,035.61
	(18,535.526)	(23,512.936)
In employment Intermediate profession	-5,366.26	-20,341.93***
	(7,387.472)	(4,923.836)
In employment Employee	-14,536.84**	-25,444.79***
	(7,076.294)	(3,875.400)
In employment Worker	-12,322.83*	-24,786.79***
	(6,839.998)	(4,584.173)
In retirement former Farmer	22,826.03*	-48,959.54***
	(12,681.551)	(7,961.123)
In retirement former Other self employed	51,146.44***	33,511.24**
	(12,566.551)	(15,369.457)
In retirement former Manager and Intermediate profession	15,259.86*	-6,645.09
	(8,631.501)	(7,785.259)
In retirement former Employee and Worker	-15,553.00**	-32,249.48***
	(7,867.672)	(4,547.125)
Unemployed former Self-employed	-15,007.58	-31,118.08**
	(11,121.149)	(12,614.069)
Unemployed former Manager	11,944.97	-7,855.40
	(16,524.674)	(21,383.032)

Unemployed former Intermediate profession	6,539.17	-27,680.38***
	(13,830.361)	(8,727.283)
Unemployed former Employee	-3,744.38	-5,701.09
	(10,782.064)	(5,601.732)
Unemployed former Worker	-10,207.31	-12,880.90*
	(7,100.233)	(7,107.951)
Other non-working	Réf	Réf
Education variables		
Diploma		
Postgraduate	56,012.47***	41,432.42***
	(9,287.161)	(8,544.194)
Elite graduate studies	74,758.88***	65,087.01***
	(11,040.820)	(14,406.884)
Undergraduate	41,904.13***	29,559.16***
	(9,101.683)	(5,685.633)
Vocational college education	33,249.64***	29,248.88***
	(5,360.980)	(4,479.289)
A-levels for vocational education	25,117.07***	28,986.74***
	(5,921.058)	(4,761.467)
A-levels for general education	27,013.20***	29,100.44***
	(5,687.615)	(4,965.039)
A-levels for technical education + Agricultural diploma	48,860.22	45,561.96*
	(31,021.854)	(24,433.673)
School certificate	11,730.21***	20,187.70***
	(3,200.671)	(3,327.416)
School certificate for vocational education	14,397.37***	19,222.79***
	(5,345.833)	(4,204.115)
Primary school certificate	-4,381.16	-2,057.48
	(4,016.634)	(3,267.903)
No diploma	réf	Réf.
Socio-demographic variables		
Age[a]	10.42	1,110.79***
	(245.348)	(149.322)
Marital status and type of marriage contract		
Married under separation of property regime	16,739.35**	48,065.56***
	(8,095.391)	(6,452.777)
Married under the community regime[b]	-436.03	30,321.34***
	(4,657.633)	(3,816.286)
Married under another regime	16,979.01	40,805.89***
	(17,206.516)	(12,077.100)
Cohabiting	-831.69	7,936.44**
	(4,570.566)	(3,992.837)
Widowhood (and living alone)	28,816.34**	12,029.61*
	(12,010.784)	(6,226.154)

Divorce (and living alone)	1,295.64	6,766.75
	(7,169.532)	(5,720.231)
Single (and living alone)	Réf	Réf
Number of siblings and rank		
Eldest of 2	-18,424.59***	-14,288.49***
	(5,617.630)	(5,289.626)
Eldest of 3	-20,822.51***	-24,005.20***
	(5,940.187)	(5,170.971)
Eldest of 4	-21,032.72***	-24,430.99***
	(6,974.163)	(6,256.034)
Eldest of 5 and more	-25,654.45***	-20,754.99***
	(7,407.252)	(6,371.629)
Second of 2	-19,594.23***	-18,756.21***
	(5,881.487)	(5,201.445)
Second of 3	-11,768.72**	-18,572.99***
	(5,846.318)	(5,017.115)
Second of 4	-17,568.87***	-23,176.84***
	(5,784.279)	(5,440.977)
Second of 5 and more	-27,163.25***	-25,766.45***
	(5,216.469)	(4,710.832)
Only child	réf	réf
Geographical area		
Paris region	Réf.	Réf.
Wider Paris area	-16,573.98***	-15,461.49***
	(4,082.399)	(3,561.789)
North of France	-16,911.38***	-18,486.37***
	(4,618.524)	(3,858.857)
East of France	-12,710.28***	-9,758.41**
	(4,821.839)	(4,282.097)
West of France	-4,620.93	-7,248.83*
	(4,296.050)	(3,806.000)
South-west of France	-5,404.16	-19,861.84***
	(4,666.204)	(4,039.349)
Centre-east of France	-4,276.96	-4,482.07
	(4,832.769)	(4,126.785)
Mediterranean area	2,695.09	-110.50
	(4,969.125)	(4,080.930)
Number of children		
0 to 4 years of age	4,007.42*	-1,960.23
	(2,304.829)	(1,702.761)
5 to 11 years of age	-1,500.00	-82.72
	(1,767.090)	(1,455.223)
Outside the household	-2,633.96**	-1,152.78
	(1,107.289)	(789.559)
Born in France	3,917.14	8,047.18***

	(3,934.308)	(3,059.785)
Family history variables		
Mother's activity (during the youth of the individual being considered)		
Little activity	690.54	-3,979.71
	(4,045.965)	(2,968.882)
Family help	-4,515.69	5,951.49
	(5,372.193)	(4,290.623)
Self-employed	2,647.29	14,321.83**
	(6,927.101)	(6,619.546)
Professional	14,901.81	-29,401.72**
	(22,135.367)	(11,962.293)
Manager	-7,557.83	-14,899.51**
	(9,109.915)	(6,263.849)
Intermediate profession, employee, worker	-5,035.12*	-4,303.97
	(2,830.955)	(2,645.750)
No activity/Other	Réf.	Réf.
Father's activity (during the youth of the individual being considered)		
Self-employed	14,357.06**	5,681.64
	(5,843.351)	(5,086.411)
Professional	-5,697.15	23,304.90**
	(16,185.740)	(10,641.414)
Manager	4,202.67	9,206.89*
	(6,162.157)	(5,349.145)
Intermediate profession, employee, worker	6,842.48	2,324.85
	(4,396.887)	(3,679.390)
No activity/Other	Réf.	Réf.
Significant money issues during the youth of the individual being considered		
Yes, often	-16,566.01	2,832.53
	(11,678.693)	(9,372.016)
Yes, during certain times	-16,984.17	2,320.11
	(11,993.492)	(9,699.632)
No, although the family was not very rich	-18,285.52	5,117.96
	(11,686.935)	(9,329.079)
No, very seldom or never	-14,118.45	9,688.22
	(11,806.212)	(9,324.245)
Doesn't know/No answer	Réf.	Réf.
Significant family events during the youth of the individual being considered		
Death of an ascendant (father, mother) (Ref. = no)	-2,880.27	-2,182.79
	(3,309.947)	(3,396.305)
Illness, disability, serious accident of the father or mother (Ref. = no)	-1,570.92	176.11
	(3,698.934)	(3,420.800)

Separation or divorce A of the parents (Ref. = no)	-4,009.37	-3,930.57
	(3,774.554)	(2,960.559)
Premature death of a sibling (Ref. = no)	1,988.16	-4,355.92
	(5,134.547)	(4,039.360)
Maternal grand-parents still alive (Ref. = no)	-13,833.78***	-14,142.35***
	(3,049.028)	(2,544.049)
Paternal grand-parents still alive (Ref. = no)	-7,592.14**	-13,497.77***
	(3,573.347)	(2,475.037)
Mother still alive (Ref. = no)	5,342.17	3,724.78
	(3,293.904)	(3,299.246)
Father still alive (Ref. = no)	-1,027.44	-648.38
	(2,947.735)	(2,687.949)
Parents own their main housing (Ref. = no)	5,777.72**	5,936.78***
	(2,454.507)	(2,118.042)
Parents own other real estate property (Ref. = no)	24,282.43***	14,601.28***
	(4,636.870)	(4,194.443)
Parents own some land (Ref. = no)	2,065.67	-17.42
	(3,524.865)	(3,113.193)
Parents own securities, life-insurance (Ref. = no)	13,329.43***	11,667.49***
	(3,726.498)	(3,253.188)
Parents own their work tools or their farm (Ref. = no)	3,146.94	-2,452.25
	(4,547.910)	(4,198.701)
Has received a donation or inheritance (Ref. = no)	35,232.65***	38,863.32***
	(3,181.259)	(2,669.296)
Constant	3,494.02	-31,140.04**
	(16,188.796)	(13,013.166)
Number of observations	7,076	8,269
R-squared	0.350	0.284

Note: Robust standard deviations between brackets
 *** p<0.01, ** p<0.05, * p<0.1
Source: French Wealth Surveys 2003-2004
(a) Age: exact age on the day of the interview
(b) The variable "Married under the community regime" also includes couples married under the legal regime (community of acquests) and those married under the full community regime

Tableau A3.2 – Factors explaining the level of financial and real estate wealth for French households in 2009 – separate estimations for men and women

	Men	Women
Career variables		
Taxable income (annual income/10000)	19,219.01***	19,221.81***
	(2,387.62)	(2,859.92)
Total duration of activity (in years)	1,507.97***	511.94***
	(229.42)	(135.72)
Duration of unemployment	-2,171.98***	-1,224.00***
	(600.80)	(268.46)

Inactivity due to illness (ref.: none)	-1,271.96	-17,251.34***
	(7,229.85)	(5,972.14)
Situation on the labour market		
In employment Farmer	57,301.29***	30,820.30**
	(13,804.66)	(12,857.56)
In employment Skilled craftsman	45,996.44***	19,020.72
	(10,635.69)	(13,176.19)
In employment Tradesman	49,019.74***	8,758.72
	(16,776.15)	(14,487.86)
In employment Business owner	89,939.17**	101,110.68**
	(45,284.18)	(42,538.91)
In employment Manager	9,209.17	10,423.94
	(10,624.22)	(9,577.37)
In employment Professional	54,190.42***	15,990.91
	(20,576.45)	(17,757.95)
In employment Intermediate profession	8,433.95	-18,921.46***
	(7,891.32)	(6,107.27)
In employment Employee	-15,184.30**	-14,641.75***
	(7,273.26)	(4,612.51)
In employment Worker	-7,016.81	-16,823.65***
	(6,895.29)	(5,579.92)
In retirement former Farmer	-1,145.24	-37,704.09***
	(18,183.08)	(9,336.07)
In retirement former Other self employed	56,502.09***	50,247.28***
	(13,105.97)	(11,270.34)
In retirement former Manager and Intermediate profession	20,437.04**	28,499.97***
	(8,877.61)	(8,287.84)
In retirement former Employee and Worker	-26,658.22***	-12,122.64**
	(8,392.61)	(5,391.41)
Unemployed former Self-employed	1,994.51	-44,290.68***
	(23,265.28)	(17,158.02)
Unemployed former Manager	33,905.12	-4,919.98
	(21,109.16)	(19,189.37)
Unemployed former Intermediate profession	4,305.81	266.56
	(20,818.07)	(12,070.35)
Unemployed former Employee	-26,945.53**	-13,190.72**
	(11,739.42)	(5,715.45)
Unemployed former Worker	-5,711.63	-16,843.87**
	(7,873.63)	(7,235.41)
Other non-working	Réf	Réf
Education variables		
Diploma		
Postgraduate	62,985.79***	68,469.01***
	(10,158.58)	(9,862.09)
Elite graduate studies	97,632.97***	71,501.62***

	(13,983.29)	(14,922.21)
Undergraduate	33,223.41***	57,841.90***
	(8,515.52)	(7,997.61)
Vocational college education	33,613.65***	55,947.20***
	(7,444.88)	(6,124.42)
A-levels for vocational education	28,602.62***	41,157.84***
	(6,622.63)	(5,769.05)
A-levels for general education	48,934.59***	44,966.75***
	(9,755.52)	(6,167.67)
A-levels for technical education + Agricultural diploma	50,639.56***	36,818.27**
	(12,011.81)	(14,788.81)
School certificate	21,311.72***	29,654.65***
	(4,390.08)	(3,858.07)
School certificate for vocational education	18,708.04***	31,986.30***
	(7,116.45)	(5,485.33)
Primary school certificate	-7,177.86	4,623.71
	(6,551.85)	(4,456.23)
No diploma	réf	Réf.
Socio-demographic variables		
Age[a]	1,350.23***	1,547.93***
	(287.59)	(189.02)
Marital status and type of marriage contract		
Married under a separate property agreement	44,523.12***	82,671.24***
	(9,729.25)	(8,475.31)
Married under the community regime[b]	2,434.48	38,813.16***
	(6,565.81)	(4,591.49)
Married under another regime	4,101.76	34,646.41***
	(10,479.78)	(10,325.86)
Cohabiting	6,467.69	20,885.73***
	(5,826.52)	(4,996.14)
Widowed (and living alone)	38,867.40***	13,038.38*
	(14,190.90)	(7,510.41)
Divorced (and living alone)	19,704.40**	5,208.65
	(9,294.95)	(6,048.04)
Single (and living alone)	Réf	Réf
Number of siblings and rank		
Eldest of 2	-11,513.41	-12,233.43**
	(7,764.40)	(5,537.32)
Eldest of 3	-18,095.17**	-9,858.71
	(7,610.48)	(6,283.79)
Eldest of 4	-25,536.04**	-10,025.24
	(10,022.24)	(7,251.30)
Eldest of 5 and more	-29,602.05***	-17,766.73**
	(8,738.78)	(7,223.60)
Second of 2	-10,684.94	-4,297.64

	(7,483.75)	(5,581.10)
Second of 3	-14,649.41**	-15,548.88***
	(7,216.35)	(5,257.71)
Second of 4	-18,860.13**	-16,166.36***
	(7,674.69)	(5,420.03)
Second of 5 and more	-24,751.15***	-13,703.33***
	(6,831.13)	(5,261.32)
Only child	réf	réf
Geographical area		
Paris region	Réf.	Réf.
Wider Paris area	-24,815.02***	-21,047.94***
	(5,378.46)	(4,397.28)
North of France	-17,931.15***	-14,752.57***
	(6,245.35)	(4,954.30)
East of France	-24,350.85***	-13,215.02**
	(6,200.71)	(5,393.70)
West of France	-14,612.67**	-13,844.84***
	(5,700.75)	(4,808.30)
South-west of France	-18,450.75***	-20,813.35***
	(6,185.26)	(5,160.35)
Centre-east of France	-9,175.09	-4,846.29
	(6,320.17)	(5,228.94)
Mediterranean area	7,884.26	3,360.71
	(7,966.28)	(5,612.15)
Number of children		
0 to 4 years of age	2,420.04	-1,163.37
	(2,952.68)	(2,288.94)
5 to 11 years of age	6,194.46***	4,370.74**
	(2,379.94)	(1,925.16)
Outside the household	-2,107.90	-1,865.16
	(1,962.22)	(1,204.87)
Born in France	7,803.83	-703.11
	(5,666.68)	(4,411.03)
Family history variables		
Mother's activity (during the youth of the individual being considered)		
Little activity	-13,462.99***	1,549.85
	(4,213.55)	(3,827.94)
Family help	-1,007.62	-1,693.08
	(6,546.54)	(5,161.62)
Self-employed	-874.55	-4,328.41
	(9,278.21)	(7,709.30)
Professional	-21,162.13	-27,739.36
	(24,628.45)	(19,090.71)

Manager	-19,070.77	-18,724.62**
	(14,904.75)	(9,360.87)
Intermediate profession, employee, worker	-5,079.27	-571.08
	(3,944.88)	(3,183.89)
No activity/Other	Réf.	Réf.
Father's activity (during the youth of the individual being considered)		
Self-employed	8,788.53	12,182.95**
	(7,260.21)	(5,851.97)
Professional	1,890.70	40,371.41***
	(16,910.10)	(14,225.17)
Manager	9,483.65	17,301.16**
	(7,881.68)	(7,129.06)
Intermediate profession, employee, worker	924.02	5,647.69
	(5,822.05)	(4,568.97)
No activity/Other	Réf.	Réf.
Significant money issues during the youth of the individual being considered		
Yes, often	5,026.26	1,489.63
	(9,876.01)	(8,149.83)
Yes, during certain times	10,745.72	5,146.02
	(10,073.76)	(8,504.73)
No, although the family was not very rich	8,932.85	3,120.87
	(9,615.11)	(7,944.90)
No, very seldom or never	13,248.53	9,062.59
	(9,934.91)	(8,157.96)
Doesn't know/No answer	Réf.	Réf.
Significant family events during the youth of the individual being considered		
Death of an ascendant (father, mother) (Ref. = no)	1,840.85	-3,623.84
	(4,536.87)	(3,751.15)
Illness, disability, serious accident of the father or mother (Ref. = no)	3,316.18	-6,139.62
	(4,817.40)	(3,741.89)
Separation or divorce A of the parents (Ref. = no)	-7,998.25*	-3,381.54
	(4,829.79)	(3,813.79)
Premature death of a sibling (Ref. = no)	-2,850.86	-5,215.23
	(5,836.33)	(5,249.32)
Maternal grand-parents still alive (Ref. = no)	-9,174.35**	-13,951.78***
	(4,186.47)	(3,495.93)
Paternal grand-parents still alive (Ref. = no)	-8,299.60**	-8,102.74**
	(4,209.34)	(3,792.63)
Mother still alive (Ref. = no)	11,553.22***	-691.81
	(4,311.03)	(3,555.56)
Father still alive (Ref. = no)	-7,495.21*	-2,685.99
	(3,865.65)	(3,339.81)
Parents own their main housing (Ref. = no)	10,484.55***	6,949.49**

	(3,483.57)	(2,761.95)
Parents own other real estate property (Ref. = no)	25,238.24***	21,921.67***
	(5,179.56)	(4,467.72)
Parents own some land (Ref. = no)	3,335.82	-4,620.83
	(4,196.43)	(3,674.86)
Parents own securities, life-insurance (Ref. = no)	14,672.05***	15,135.85***
	(4,428.45)	(4,026.97)
Parents own their work tools or their farm (Ref. = no)	-386.97	6,104.84
	(5,636.35)	(4,736.34)
Has received a donation or inheritance (Ref. = no)	40,553.33***	40,742.16***
	(3,877.52)	(3,340.46)
Constant	-76,479.01***	-61,920.53***
	(17,275.63)	(13,389.38)
Number of observations	9089	10325
R-squared	0.359	0.296

Note: Robust standard deviations between brackets

 *** p<0.01, ** p<0.05, * p<0.1

Source: French Wealth Surveys 2009-2010.

(a) Age: exact age on the day of the interview

(b) The variable "Married under the community regime" also includes couples married under the legal regime (common property regime) and those married under the full community property regime