

Women, Wealth, and Mobility¹

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Abstract

The share of women among the very wealthy in the United States followed an inverse-U pattern in the last century, peaking in the late 1960s. We argue that the rise and fall of women reflect the relative importance of inherited vs. self-made wealth and may thus be a gauge of inter-generational wealth mobility at the top of the distribution. The implied decline in wealth mobility pre-1970, and rise since, lend further support to the hypothesis that secular trends in income inequality and mobility are driven by technological change. Moreover, greater mobility in the later part of the century allows us to reconcile increasing income concentration with recent evidence that wealth concentration has been stable in the past 25 years.

1 Introduction

To this day, women tend to inherit rather than make large fortunes. While women certainly appear in the top income brackets in the U.S., those who are wealthy by their own devices remain predominantly male. This empirical observation (further discussed below) is useful when combined with a second fact: systematic information on the evolution in the last century of wealth mobility at the top is, to the best of our knowledge, non-existent. Evolution of wealth mobility among the wealthy is of interest since it provides insights into the causes of large swings in the level of wealth and income concentration in the 20th century. In particular, we will argue that the observed patterns are consistent with wealth concentration being driven by technological change rather than social norms or institutional factors.

The empirical thrust of this paper is evidence from estate tax returns, a source of information that has several advantages: it covers the very top, it spans almost the 20th Century, and it records data at the individual level, enabling the computation of the gender wealth distribution and its evolution over time.¹ We argue that the share of women who are wealthy reflects the importance of inherited wealth; and may thus serve as an indicator of inter-generational wealth mobility at the top of the distribution. This indicator has varied substantially over the past 75 years. According to estate tax returns data, in 1925 one quarter of the wealthiest 0.01 percent were women, Figures 1a; and 1b.² This fraction rose rapidly through WWII and then more slowly to peak in 1969, when women neared parity with men. Since then, there has been a marked decline. By 2000, women's share had fallen to one-third – this despite the increased economic emancipation of women commonly observed for the labor market.

The large movements of the gender proxy, have strong implications for changes in wealth mobility at the top. Our proxy indicates that high-wealth mobility decreased

¹For instance, Schmidt and Sevak (2004) used the Panel Study of Income Dynamics to study the gender wealth distribution in the late 1990s (years 1994, 1999 and 2001). The PSID records wealth at the household level, is too small a sample to study the top of the wealth distribution and does not allow for comparisons of over substantial time period.

²This and all subsequent figures based on estate tax returns use shares based on years $t - 2$ to $t + 2$ (when adjacent years are available).

in the period 1925-1969 and increased thereafter. This U-shaped pattern in mobility is consistent with a primary role for technological change in driving secular trends in inequality. While the well documented increase in wage inequality since the 1970s is widely believed to be linked to rapid technological change, e.g., Juhn et al. (1993), Katz and Autor (1999), there has been less focus to date on the potential role of its *absence* for understanding the decline in inequality in the 1930s and 1940s, and continued low levels through the 1950s and 1960s.³ Instead, macro-economic shocks such as the Great Depression, World War II; egalitarian social norms and — their possible expressions — policy measures such as income and estate taxation, anti-trust legislation and the GI bill have been given more weight, e.g., Goldin and Margo (1992), Piketty (2003), Piketty and Saez (2003), Kopczuk and Saez (2004a).

The period in which we see a rise in the share of women follows on the heels of a period of major inventions (electrification and the internal combustion engine) but is itself not one. According to Jovanovic and Rousseau (2003, p. 419): “It seems to us that the periods 1890-1930 and 1971-2001 saw more creative destruction than the period 1930-1970.” Moreover, the IT revolution, with a start date in the early 1970s, coincides with the decline of women in our data. One reason why inventions (as opposed to innovations) are likely to encourage entrepreneurship and generate new fortunes large enough to replace existing ones at the top is that rapid technological change renders existing capital obsolete and favors new firms (Greenwood and Jovanovic, 1999; Hobijn and Jovanovic, 2001). New firms, in turn, tend to be more closely held, owned primarily by the entrepreneurs themselves. Thus, technological change may propel founders of firms that successfully adapt the new technology to the top of the wealth distribution.

As mentioned, estate tax data allows the studying of the top of the distribution. Since the wealth distribution is highly skewed, the top is quantitatively important.⁴ Moreover, as seen in Figures 1a and 1b, the very top is qualitatively different from the rest. Recently, Charles and Hurst (2003) studied intergenerational wealth mobility using a sample representative of the full population (using PSID data) and briefly

³An exception being Galor and Tsiddon (1997).

⁴For instance, the estimated wealth held by those in the Forbes 400 (the top 1/50th of the top 0.01%) peaked at over 3.5% in 2000 and the top 1% of households is estimated to hold as much as 34% of total wealth ((Scholz, 2003; Kopczuk and Saez, 2004a)).

surveyed the small literature on this topic. However, the PSID sample is too small to study the top of the wealth distribution, where most wealth is held, and contains wealth information only for a short period of time. The Survey of Consumer Finances (SCF) is similarly limited time wise but allows for the studying of the top 0.5% of the household wealth distribution. Not captured in surveys, the study of mobility at the top of the wealth distribution has been limited to genealogical studies of named decedents (see Davies and Shorrocks, 2000, who also discuss the limitations of this approach).

This paper’s interpretation of the fraction women in the top wealth group offers a potential explanation for why top shares of wealth have remained constant (Scholz, 2003; Kopczuk and Saez, 2004a), in the face of greater income concentration (Piketty and Saez, 2003). The fall of women among the wealthiest suggests there were wealth mobility – inherited wealth being replaced by self-made fortunes. The rise of self-made wealth may manifest itself in the form of increased labor income, while the relative decline of inherited wealth would correspond to a decline of capital incomes, consistent with Piketty and Saez’s (2003) finding that recent increases in income inequality were driven by labor rather than capital income inequality. We will briefly revisit this interpretation in the concluding section.

We present several pieces of evidence supporting our hypothesis that the share of women reflects the importance of inherited wealth relative to self-made wealth. First, our estate tax data, broken down by gender and marital status, are consistent with the argument that primarily men generate wealth, but that both men and women inherit. These data predict a U-shaped pattern for the role of self-made wealth at the top of the wealth distribution. Second, two sets of “rich lists” provide some direct evidence. Forbes list of the wealthiest 400 Americans; and “A Classification of American Wealth” which chronicles wealthy Americans from 1675 and 1950 (at 25 year intervals). To start, the fraction of those who inherited wealth and fraction women are highly correlated in both sets of lists. Moreover, from its start in 1982 to the present, the Forbes list suggests a sharply diminished role of inherited wealth; while A Classification of American Wealth shows an increasing role for inherited wealth beginning in 1875 through its end year 1950. A comparison of the 1950 list based on A Classification of American Wealth and the 1982 Forbes data suggests that

the decline started prior to the 1980s. Third, this pattern is evident outside the top of the wealth distribution. Using the IPUMS, we find that the fraction of the labor force who are employers (a potential gauge of entrepreneurship) exhibited a U-shaped pattern over the last century.

Although we rely on several data sources, the estate tax data provide the most systematic evidence. The structure of the estate tax may have an impact on how couples allocate assets between them, and thus the observed gender wealth distribution. Therefore, we also investigate the role of changes to the tax treatment of estates. The level and graduation of the estate tax changed a number of times during our study period. Marginal estate tax rates for high wealth individuals were increasing until the mid-1970s (initially from rate hikes, and then from inflation induced bracket creep), after which they remained fairly constant. The introduction of unlimited marital deduction in 1981 might have contributed to the subsequent decline. That said, we doubt that tax considerations entirely account for the rise and decline of the share of women in the top wealth group for several reasons. For instance, the decline appears to begin in the 1970s. Also, while marital deduction is used more extensively in lower wealth categories, women's decline is limited to the top of the wealth distribution. Furthermore, data on the never married, a group whose sex ratio is relatively unaffected by incentives to reallocate wealth between spouses, suggest important variations in the share of entrepreneurs in the predicted U-shaped fashion.

A note on terminology is warranted. We will favor a distinction based on how wealth was primarily obtained: inherited (or bequeathed) or self-made. We will use the terms "rentiers" and "entrepreneurs" to denote those who inherited and made their wealth respectively, unless otherwise specified.

The remainder of the paper proceeds as follows. Section 2 presents the data. Section 3 discusses possible explanations to the observed trends. Section 4 concludes.

2 Data

Our main data source is tabulations based on micro estate tax data collected by the Statistics of Income Division of the IRS. We also refer to the Forbes 400 list of the wealthiest Americans, and the IPUMS. For historical data going back to the 1800s,

we use A Classification of American Wealth, which lists wealthy Americans (from 1675 and 1950, at 25 year intervals), and a list of more than 4,000 U.S. millionaires in 1892 published by the New York Tribune.⁵

The database of estate tax returns contains all of the returns filed since the introduction of the federal estate tax in 1916 through 1945, samples for 1962, 1965, 1969, 1972, 1976 and all years after 1982. Our data cover the period 1925-2000.⁶ The data contain most of the information recorded on the tax returns, including basic demographic characteristic such as age, gender, marital status and state of residence. Although the database itself is confidential, we have obtained very detailed tabulations by finely defined wealth categories, state of residence (not available in 1962 and 1972), marital status (not available in 1965) and gender. We will study both the distribution of decedents and the distribution of the living constructed from estate tax returns. For the latter, we will employ the estate multiplier methodology as in Kopczuk and Saez (2004a), in most cases concentrating on groups within the wealthiest .4%.⁷ The estate multiplier methodology amounts to weighting the population by the inverse of the mortality rate, essentially treating death as a random sampling device.

There are two (not mutually exclusive) ways of viewing the difference between patterns emerging for decedents and estate multiplier weighted data. First, mechanically, estate-multiplier weighting puts greater emphasis on younger individuals. Second, and relatedly, the estate multiplier technique shows values more representative of the whole population not just because of mortality-adjusted weighting, but also because estates of younger decedents are much less likely to be skewed by any tax-motivated planning. For instance, Kopczuk (2005) found that a substantial share of tax-motivated adjustments takes place following the onset of a terminal illness. Since younger individuals are more likely to have died unexpectedly, these types of adjustments are less important for the young.⁸ Lastly, the series for the living allows for

⁵New York Tribune, The Tribune Monthly Supplement, June 1892, vol. IV no. 6.

⁶A more detailed description of the 1916-1945 data can be found in McCubbin (1990), while the post-1945 studies are described in Johnson (1994). Between 1916-1924 we have no information about marital status.

⁷Due to the varying coverage of the estate tax, this is the largest group for which we can construct shares for all years.

⁸The data for 1976 contains information about the length of terminal illness of decedent. Among

differences in the age profile of wealth for men and women (and can thus account for differences in the length of time a person was wealthy).

Figures 1a and 1b show the evolution of the fraction of women, decedents and living respectively, in the top 1 percent divided in five categories: the wealthiest 0.01% (P99.99-100), the wealthiest 0.10%, those between the top 0.10% and the top 0.40% (P99.60-99.90), and finally those between the top 0.40% and the top 1% (P99-99.6).⁹ As mentioned in the introduction, two major findings emerge. First, both series show that the share of women increased until the 1970s, reaching almost 50% by the end of that period. Second, in the 1980s and 1990s, the share of women in the top categories (P99.99-100) fell precipitously (living), and the decline was limited to the top 0.1%. Similar, but less pronounced patterns are also present for the decedents.

The decline in the later part of the 20th century is confirmed by the the Forbes list of the richest 400 Americans (top 2% of P99.99-100), compiled annually since 1982, Table 2. These data show a similar decline as that evidenced in the estate data: the fraction of women dropped from 18 percent in 1982 to 13 percent in 2003. The level difference (smaller female share in the Forbes data) may partly reflect how wealth is assigned. Forbes attributes wealth to the person mainly responsible for its generation and not its ownership, a method which may introduce a male bias (e.g., only Bill Gates appears on the list, not his spouse). Also, Forbes does not rely on administrative data and it may be that wealthy women are less visible than wealthy men, e.g., from being less activist owners.

The increase in the early part of the century is consistent with information from *A Classification of American Wealth*, Table 3.¹⁰ Following a decline in the first half decedents 40 years or younger, 47% died of illness lasting “hours” or less. For those, over 80, the corresponding number is below 20%.

⁹Wealth thresholds in 2000 (2000 dollars) were 24,415,150, 5,503,678, 2,139,887 and 1,172,896 respectively.

¹⁰*A Classification of American Wealth* (available at http://www.raken.com/american_wealth/index.asp) is “an online book being presently written by Drew Caradine Shouter (pseudonym) who has been studying the subject of wealth accumulation and society in America for many years.” Currently, it is a subscription based product. The website contains lists of wealthy Americans, their biographies, family trees etc. and is compiled based on various historical sources. We are grateful to the author for permission to use some of this information in this paper. Numbers presented in this paper are based on information accessed on 1/27/2006.

of the 19th century, the number of women on this list was increasing between 1850 and 1950.

3 Women, Inheritance and Wealth Mobility

This section probes the hypothesis that the share of women in the top wealth group reflects the relative importance of inherited wealth.

Assume, for the sake of argument, that only men generate wealth but that both men and women inherit, and let us consider the following stylized example. Each man is survived by a spouse and two children, a son and a daughter. Clearly, the gender wealth distribution will depend on how large a fraction of the estate is passed on to the spouse, how long she outlives her husband, and what fraction of the initial wealth passes to the son and daughter respectively. However, holding these parameters constant, the fraction women among the wealthy will reflect the relative importance of inherited vs. self-made wealth (or loosely, rentiers vs. entrepreneurs).

If so, this mechanism would result in a pattern where wealth held by women decreases in times of new wealth accumulation and increases as this wealth is passed down the generations, unless new wealth is created. This may be one reason for the observed rise in wealth held by women in the early part of the century. This explanation would also be consistent with the drop in wealth held by women in P99.99-100 if inherited wealth was increasingly replaced by self-made wealth in the last three decades.

We structure our discussion as follows. First, we discuss the validity of the claim that the wealth of women at the top is disproportionately derived from inheritance. Then, we show evidence pointing to changes in the relative importance of inherited and self-made wealth. Subsequently, we discuss what can be learned about inherited vs. self-made wealth based on never married decedents. Finally, we discuss the marital-gender composition of the estate taxpayers. To do so, we introduce a simple model that highlights mechanisms that could drive changes in the marital composition of the wealthy. We use this model to infer the importance of inherited vs. self-made fortunes and to discuss the implications of other factors that may have been changing over time such as changes in the tax code or norms regarding the allocation of as-

sets between spouses. We also consider alternative hypotheses: the role of changes in marriage market conditions, divorce law liberalization specifically; and the geographic composition of wealth between community and non-community property states.

3.1 Non-estate tax evidence

The Forbes list provides direct evidence of a strong (positive) link between inherited wealth and the share of women; and their parallel decline. In 2004, Forbes estimated the wealth of Margaret Whitman (eBay) at \$1.6 billion, making her the richest self-made woman in the United States. Despite the *Margaret Whitman's* and *Oprah Winfrey's* of the world, an inspection of the Forbes 400 list suggests that family remains the primary route to wealth for women. According to the 2004 list, the wealthiest women in America inherited their wealth. Ms. Whitman's achievements only afforded her the 152nd spot, well short of positions occupied by the widow and the daughter of Sam Walton, the Mars fortune heiress, Cox daughters and others. In fact, all seven women among the 25 richest Americans came to wealth through their families, and, interestingly, the lever was predominantly birth rather than marriage. In contrast, of the 18 top men, 14 were self-made.

Table 2 lists, by year, the number (and share) of women on the list, and specifically those who had inherited their wealth. It is noteworthy that while women make up 45-50% of those who inherited wealth, their share among the self-made is substantially lower (6.6% in 2003). Moreover, the drop in the share of women is mirrored by a drop in the share of individuals who inherited wealth. In 1982, more than one third had inherited, whereas by 2003 this fraction had more than halved.

The importance of inheritance for women's wealth is not new. The list of some 4,000 millionaires in 1892 published by the New York Tribune showed a much greater fraction of women among those who had inherited than those who were self-made, Table 4. A similar pattern emerges from A Classification of American Wealth, Table 3. While the number of observations is small for the early years and the fraction of women varies widely, the last three data points are most relevant for us. In 1900-1950, the fraction of women among those who had inherited wealth was fairly steady and around 60 percent (no women were self-made). Moreover, for the period 1875-1950 these data show a steady increase in the role of inherited wealth, consistent with our

hypothesis that the rise in the share of women in the estate tax data is linked to inherited wealth playing an increasingly important role.¹¹

Further evidence on the importance of entrepreneurs can be obtained from the censuses. Using the IPUMS data, we calculate the fraction of the labor force that is self-employed, and, for some years, employers. These data show that entrepreneurship thus measured indeed declined between 1920-1970 and picked up thereafter, Figure 3.¹²

3.2 Singles

Further evidence on the relative importance of inherited vs. self-made wealth over the last century may be had from the never married (henceforth, singles). Assuming that sons and daughters inherit equally, but that only men make wealth, all single (wealthy) women would have inherited as daughters, and the number of single men in excess of single women would be due to self-made wealth. The evidence from the singles is particularly interesting since arguably the gender composition in this group is relatively invariant to changes in the tax code, marital deduction in particular, see below. Figure 4a (4b) shows the fraction of decedent (living) single men and women respectively for P99.90-100.¹³ Figure 5a (5b) shows the implied fraction of entrepreneurs. Note that the implied fraction of entrepreneurs indeed follows a U-shaped pattern.¹⁴

¹¹The higher fraction of inherited wealth in the more inclusive category (top 400) may be an artifact of the data collection. Inherited wealth may be traceable and therefore relatively more visible in lower wealth categories. Also, the criterion for the source of wealth being due to inheritance is “...whether a person has significantly contributed to the management and development of a business, in which case he will be allocated a specific activity (e.g., banking, manufacturing, oil & gas, etc.),” (personal communication with Drew Caradine Shouter on 1/29/2006). This is likely to lead to underestimation of the number of men among those who inherited.

¹²The details of these calculations are in the appendix.

¹³Single individuals are overall a small fraction and therefore we need define the top category more widely.

¹⁴There were more women than men in 1969 and 1976 and thus the estimate of the fraction of entrepreneurs is negative for these years. While clearly this cannot be the case, treating death as a random sampling device, this is what we would expect to estimate with probability .5 if there were no self-made wealth at all (and thus equally many men and women among the wealthy). Alternatively, there are more women than men among rentiers.

3.3 Married couples

3.3.1 Model

Understanding the evolution of gender composition for married (or widowed) individuals is harder because factors such as the likelihood of the wife dying first, the size of marital bequests or default marital property rules can affect it. Therefore, we estimate a simple descriptive model of the evolution of marital and gender categories in order to shed further light on the importance of various factors. We start by focusing on the population of decedents. We assume that there are two kinds of couples among the wealthy: rentiers and entrepreneurs.

Rentier couples can derive their wealth from either the husband or the wife.¹⁵ We denote by $1 - \alpha$ the number of couples of this kind. We assume that the person who inherited wealth will be subject to the estate tax while the other spouse falls below the threshold, regardless of the order of death. Effectively, we assume that the rentier does not bequeath enough wealth to the surviving spouse for us to observe both in our data. The key assumption is that the rentier sex ratio is constant and more female than the entrepreneur sex ratio. We will assume that there are equally many men and women rentiers, i.e., on average, we observe .5 men and .5 women per rentier couple.¹⁶

Entrepreneurs are the second kind of couples. There are α of such families. We assume that only men are entrepreneurs. What we observe for entrepreneur couples depends on the order of death. If the man dies first, we observe him (as a married male) with frequency one, and his wife as a widow with frequency γ . In principle, γ can be any positive number, but we focus on $\gamma \in [0, 1]$, which would be the case if husbands do not pass all of their wealth to their widows or that widows de-cumulate or pursue tax avoidance strategies.¹⁷

¹⁵If both members of the couple were rentiers, it is equivalent to two couples with one rentier each. Our model cannot distinguish between those two cases. If there are couples with two rentiers, α needs to be reinterpreted accordingly. Implicitly, we assume that the frequency of rentiers marrying each other has not changed over time.

¹⁶Our qualitative conclusions would not be affected by a different but constant sex ratio (with non-zero women).

¹⁷ γ could be greater than one reflecting a large inter-spousal bequest and/or wealth effectively controlled by wife, augmented by additional wealth accumulation that could take place following the

If the woman dies first, we observe her with frequency c , which reflects (but is not equal to) her share of property. We will often assume that $c = 0$, i.e., the wife of an entrepreneur is not sufficiently wealthy to appear in the top group. The polar case is that of $c = 1$, i.e., the wife is as wealthy as her husband. We will vary the value of c to represent the strength of the community property rules. Following the death of a wife, the husband may pursue tax avoidance and de-cumulate. To the extent that some wealth was shifted to the wife in order to split an estate for tax purposes, wealth of the husband may be further lowered. We allow for this possibility by assuming that we observe the husband in such cases with frequency σ . To complete the model, we posit that the frequency of a wife dying first is equal to β and is the same for the rentier and entrepreneur families. In sum, we observe various gender/marital combinations with the following frequencies:

Category	with the frequency of	
	(entrepreneur)	(rentier)
married woman	$\beta \left(\alpha \cdot c \right)$	$+ (1 - \alpha)/2$
widowed man	$\beta \left(\alpha \sigma \right)$	$+ (1 - \alpha)/2$
married man	$(1 - \beta) \left(\alpha \right)$	$+ (1 - \alpha)/2$
widowed woman	$(1 - \beta) \left(\alpha \gamma \right)$	$+ (1 - \alpha)/2$

We convert these quantities into shares by dividing them by their sum and match them to the actual shares of these four categories observed in the data. We assume the values for β and c as discussed below and estimate three parameters – σ , γ and α – for each year separately. Because the shares add to one, we have three independent conditions, and this procedure amounts to solving a (quadratic) system of three equations in three unknowns.

Thus, we apply a simple method-of-moments approach where we match predictions of our structural model with three unknown parameters to three independent moment estimates, i.e., the means of three (out of four) dummies for gender/marital status categories.

A closer inspection of these formulae shows that we can readily derive the solution for α by combining the share of married women and the share of married men: these death of the husband (which would introduce into the top groups some wives with “absent husbands”).

shares are equal to the expressions shown in the table that depend only on α and constants divided by the sum of all categories. As a result, by dividing them through each other we obtain a single equation in one unknown, α :

$$\frac{\text{married women}}{\text{married men}} \frac{1 - \beta}{\beta} = \frac{\alpha c + \frac{1-\alpha}{2}}{\alpha + \frac{1-\alpha}{2}}.$$

Intuitively, wealth of the first-to-die may be substantial either because a man is self-made or because a woman shares marital property with a self-made man. Once we know (assume) the marital property sharing rule and the probability of a husband dying first, the number of first-dying women relative to first-dying men reflects the influence of α only.

Denoting the (known) term on the left hand side by r , we can write the solution for α as

$$\alpha = \frac{1 - r}{1 + r - 2c}. \quad (1)$$

The model imposes some simple (though weak) testable predictions: since $\alpha \in [0, 1]$, we must have that $\frac{1-r}{1+r-2c} \in [0, 1]$. This can be shown to be equivalent to $\min\{c, 1\} < r < \max\{c, 1\}$. Making the natural assumption that $c < 1$, it follows that $c < r < 1$. For $c \geq 0$, the necessary condition for this condition to hold is that $r \in (0, 1)$. Knowing the value of β , we can directly verify this condition from the data. If we have extra knowledge about the value of c , we can further tighten this restriction.

While the value of α described above can be derived with no reference to the shares of widows and widowers, the model imposes additional restrictions due to the presence of these groups. We know that γ and σ must be non-negative. Given the solution for α , the equations for widows and widowers are linear in γ and σ , and so is the sum of all four terms. Consequently, the explicit solutions for γ and σ can be easily derived as solutions of linear equations. Whether the values implied by these solutions are positive is testable.

This model highlights that the ratio of the number of married women to the number of married men reflects the relative importance of rentier and entrepreneurs. In other words, the difference between (or the ratio of) wealth observed if the husband dies first and wealth observed when the wife dies first reveals whether wealth was in fact controlled by the husband or by the wife.

There are two confounding factors in the model. First, the frequency of observing married men and married women depends on β , the likelihood that a woman dies first. We cannot estimate β from our model. Therefore, we estimate the actual likelihood using the IPUMS census data for 1920 through 2000 combined with mortality rates from Social Security mortality tables.¹⁸ We assign to each person a mortality rate based on gender and age.¹⁹ To obtain the estimate of the number of couples in which a woman died first we add the mortality rates for all married women and widowed men. Similarly, to obtain the estimate of the number of couples in which a man died first we add the mortality rates for all married men and widowed women. Our estimate of β is the ratio of the first number to the sum of the two. This procedure yields values of β for Census years and we use cubic spline to interpolate values in intermediate years. The estimated value of β was 0.4 in 1920, it was falling until the 1980 Census when it reached its minimum at slightly over 0.27 and it subsequently increased to slightly over 0.30.

Second, exactly how much is controlled by the wife, c , influences the number of married women. Note that equation 1 is decreasing in r as long as $c < 1$ (which we consider the relevant range). In that case, the direction in which α moves with changes in the ratio of married women to married men does not depend on the chosen value of c . A more important concern is the possibility that c evolved over time. There are several reasons why this may have been the case, e.g., the evolution of state marital property rules and reallocation of people across states with different marital property regimes. There were three property regimes during our study period: community property, common law and equitable distribution. Throughout the period, eight states were community property states, meaning that property acquired during marriage is considered marital property.²⁰ The remaining states were common law states where property used to be allocated according to title. However, with greater

¹⁸Described in Bell et al. (1992) and available from www.mortality.org.

¹⁹We also repeat the same procedure using the adjustment for socio-economic differentials as in Kopczuk and Saez (2004a) and adjusting the mortality rate for married spouses for the possibility of dying in the same year (assigning each of them a probability of 1/2 of dying first). These adjustments had a trivial effect on the estimate of β .

²⁰Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, and Washington. Wisconsin changed from equitable distribution to community property in 1986. We do not use data for Wisconsin when we split the sample with respect to the marital property regime.

incidence of divorce, this system was deemed unfair as it exposed many wives to financial hardship. Therefore, a number of states applied the principle of equitable distribution instead, i.e., divorce judges would allocate assets according to fairness.²¹ Equitable distribution was already in place in 25 states in 1970 (Gray, 1998), and by 1994 the remaining eight states had adopted equitable distribution (Weisberg and Appleton, 2002). We code states according to their status in 1970, following Gray (1998, Table 1), where common law states are those that at the time still allocated property according to tile.

In terms of c , it seems reasonable to assume that it is highest in community property states and lowest in common law states, equitable distribution presenting an intermediate case. For estimating our model, a lower value of c is better. To see why, consider the case of $c = 1$. In that case, self-made and inherited fortunes are not distinguishable, i.e., α is not “identifiable.” Also, for values of c close to one, we would expect much greater sensitivity to measurement error.

Model results In view of this, we estimate our model separately for the three marital property states. The results for α are in Figure 6a for all states and Figure 7a for common law states. To smooth the series, we use shares defined based on years $t - 2$ to $t + 2$, if available. The results for α , σ , and γ are in Figures A-1a (all) and A-1b (common law). The figures show a marked decline of the share of entrepreneurs until the 1970s with an increase since. This pattern is much more pronounced in the common law states. One reason to favor the results from the common law states is that our simple model performs worse on other dimensions in equitable distribution and community property states. As discussed, the problem may arise from a c close to one. Another possible complication may be that c varied over the century. Common law states are also the only ones for which non-negativeness restrictions imposed by the model on the values of γ and σ are not rejected.

Living The decline in the share of women in the top group was more pronounced among the living than decedents, and we would therefore be interested in how our model would perform on data for the former. A complication is that the living are

²¹The length of the marriage and the non-market contributions of the financially weaker spouse are among the factors considered.

younger and therefore will have fewer widows and widowers and more married couples. Thus the model as formulated above cannot match the data. A model for the living would have to give higher weight to married individuals, how much higher we do not know. However, among those who are married in the full population, there must be equally many men and women. Thus, the extent to which we observe more married men than married women *at the very top* of the wealth distribution would be driven by α , the share of entrepreneurs (for constant $c \neq 1$). To formalize it, simply note that, in terms of our model, equations for the number of married men and married women remain valid with $\beta = 1$, while equations for widowed men and women are not because they should be multiplied by the unknown survival factors. As before, the solution for α can be derived based on equations for married men and women only. Assuming that $c = 0$, we have that $\alpha = (1 - \hat{r})/(1 + \hat{r})$, where $\hat{r} = \frac{\text{married women}}{\text{married men}}$. Figure 6b shows the estimate of α thus obtained from data for the *living* in all states, and Figure 7b for common law states. An advantage of this approach is that the estimate of the share of entrepreneurs is independent of the constructed value of β . Again, α follows a U-shaped pattern.

3.3.2 Alternative Explanations

So far, we have assumed that the wife's share is a constant over time. There are several reasons why this may not be the case. One possible reason is changes to the tax code. For instance, the graduation of the estate tax may influence how couples allocate resources between them. Another possibility is that the norm for what constitutes a fair distribution of wealth between spouses may have changed over time, for instance in the wake of divorce law liberalization.

Tax changes The tax treatment of estates may affect the gender wealth distribution by influencing allocation of assets between spouses.²² There are two primary factors to consider: the level and graduation of the estate tax; and the maximum marital deduction. The tax treatment of marital transfers changed on several occasions,

²²The estate tax was introduced in 1916 but rates remained low until the 1930s, when they were very sharply increased (peaking at 77%) in a series of tax reforms between 1932 and 1942. Top rates were reduced in the tax reform of 1981 from 70% in 1982 to 55% in 1984 and thereafter. For 2006, the top rate is 46%. An excellent historical overview of estate taxation can be found in Luckey (1995).

including the introduction of 50% marital deduction in 1948, an extension of marital deduction in 1976 to the greater of 50% and \$250,000 and unlimited marital deduction in 1981.²³ For our purposes, the 1981 change is of most interest (we have no data to study the 1948 change, and the 1976 extension did not affect higher wealth categories).

The 1981 introduction of unlimited marital deductions made it more advantageous to transfer assets to the surviving spouse at death (as opposed to an inter vivos transfer) – and as shown in Figure 11, marital deductions increased sharply after 1976 (our last year of data available prior to 1981). A priori, we would expect a reduction in spousal inter vivos transfers and transfers to others (inter vivos or at death), and an increase in the net worth (as observed at death) of the married. The initial effect would thus be to make the wealthy more wealthy, more likely to be married and more male. Since, presumably, surviving spouses inherit more, we would expect wealth held at death by widows (widowers) to increase subsequently, partly offsetting the initial “gains” of married men (women).

This is roughly what we find for the decedents, Figure 9a. The share of married men in the top group increases between 1976 and 1982 and the share of widowed women falls. There are weaker but corresponding patterns for married women and widowed men. This is followed by a recovery among widows and widowers and the decline of married decedents. The evidence from the living is weaker, although some of the same patterns are visible. Consistent with the logic that unlimited marital deduction reduces the incentives to reallocate wealth towards the wife inter vivo, we see a gradual increase in married men. However, widows no longer show a recovery post 1982, but a continued gradual decline, a development unlimited marital deduction cannot account for, Figure 10a.²⁴

The estimate of α in the model section decreases in r , the ratio of married women

²³The marital deduction arose as a means of correcting a perceived inequity in the tax treatment of estates between community and non-community property states. In the community property states, half of the community property would be automatically subject to the estate tax while in non-community property states an exclusion would be granted only if the surviving spouse could be shown to have contributed to the acquisition of property. The introduction of marital deduction in 1948 was preceded by the 1942 legislation that attempted to tax community property, unless a reason for exception as in non-community property states could be established (Luckey, 1995). We investigate the relevance of the community property rules in what follows.

²⁴A possible explanation is that widowed women were more likely to remarry.

to married men. Thus, if unlimited marital deduction resulted in a decline in r (relatively more married men), then the rise in α seen in Figure 7a may not reflect greater entrepreneurship but rather tax changes. The effect of marital deduction on the relative number of married men and married women is difficult to assess. By reducing the penalty for holding on to wealth, the incentive to pursue tax avoidance after the 1981 reform likely weakened for both groups. As a result, both the number of married men and the number of married women should have increased. It is unclear whether such an effect, if any, was stronger for men or women. It is certainly possible that married men pursued more aggressive tax avoidance strategies prior to the introduction of unlimited marital deduction and therefore that their reported wealth should increase by more than the wealth of married women.

Lower wealth groups may shed some light on the issue. Less wealthy groups use the marital deduction more extensively, Figure 11, which would suggest that the 1981 changes had a stronger effect on their gender-marital composition. As figure 9b illustrates, the share of married females in the remainder of the top .4% increased between 1976 and 1982,²⁵ with no similar effect for the share of married men, thus suggesting a stronger response for married women than married men. Given these patterns for the lower wealth categories, we suspect that marital deductions cannot fully explain developments at the very top – the rise in married men specifically.

Another factor potentially influencing the gender composition of the estate taxpayers is its graduation. We would expect greater graduation to increase the tendency to split *taxable* estates when marital transfers were taxable (the case prior to 1948, and to some extent until 1982). One way of accomplishing this objective was by sharing wealth more equally while alive. Moreover, absent marital deductions, a couple aiming to maximize wealth holdings of the surviving spouse should tilt assets towards the spouse who is more likely to survive. Both of these factors would result in more women among the wealthy as the graduation of tax rates increased. Effective marginal tax rates for the estate in the top .01% were in fact increasing until the 1970s (driven by rates changes prior to 1945 and falling real value of thresholds due to inflation

²⁵Note that P99.6-P99.99 contains 39 times as many individuals as top .01% so that the presence of individuals moving between P99.6-P99.99 and Top .01% has a minor effect of the gender composition of the larger group.

after that, Figure 10 in Kopczuk and Saez (2004a)) and stabilizing after that until 2001. Therefore, changes in estate taxation could have contributed to an increase in the share of women until the 1970s. Thus, the increase in the share of women in the early part is consistent with a story of increasing graduation of the estate tax leading to more even distribution of assets between spouses.

However, graduation of the tax schedule cannot account for the later decline. While data for decedents were largely consistent with what we would expect from the introduction of unlimited marital deductions, it appears unlikely that marital deductions were the sole driving force behind the fall in women for a number of reasons. First, while there was an increase in married men in the top group, the lower wealth group saw no such increase. Arguably, it is the lower wealth group that was more affected. Second, evidence from the Forbes 400 list reveals a strong link between the importance of inherited wealth and the fraction of women, both declining steadily in the last two decades. Lastly, we should bear in mind the results for singles. Tax considerations have no direct implications for the frequency of observing single males vs. single females. Thus, the fact that evidence from the single population on the share of entrepreneurs shows a similar pattern as that obtained from married couples (and widows and widowers) suggests that changes to the tax code have not been the main factor driving the share of women among the wealthy.

Changing norms It may be that what is considered a fair division of assets between spouses has changed over time. While this might explain the rise in the fraction of women seen in the 1925-1969 period, it is less clear that it can account for the decline since, although the no-fault revolution has been associated with negative economic consequences for women. Assuming that women in the concerned group have more to lose from divorce, their bargaining position would have worsened, which would show up as married women owning a lower share of household wealth. However, the decline of women seems driven not by married women but by widows, thus casting doubt on this explanation.

While difficult to pin down, it may be that the lower wealth categories provide some evidence on what is considered a fair share. The reason is two fold. First, wealth distribution is more skewed than income distribution and therefore we would expect

that at lower wealth categories the bulk of wealth was not inherited (or in other words, more people can save x than inherit x , for reasonably low x). Thus, for a sufficiently low wealth category, self-made wealth will dominate. Second, at lower wealth levels, the wife's entitlement is more likely to be proportional to husband's wealth than at higher wealth levels (where it is more likely to be in terms of an absolute number). For instance, in the much publicized divorce of the Wendts in 1995, the wife claimed 50% of the husband's estimated 100 million dollar wealth but was only awarded 20 million on the ground that this would be sufficient to maintain the standard of living she had grown accustomed to. In other words, the wife's entitlement may only extend to consumption, not savings, and savings increase with household wealth.²⁶ Thus, asset allocation in the lower wealth group may provide some evidence on what is considered a wife's fair share. Changes in the share of women beyond what would be indicated by the share of women in the lower wealth category might then be interpreted as owing to other factors than changes in social norms.

Figure 8 shows the difference between the share of women in P99.6-99.9 and the top 0.01%. The difference follows a U-shaped pattern. In the beginning of the period there were more women in the lower wealth category, but the difference is falling rapidly and by the 1940s, there were relatively more women in the top group. This reverses in the 1970s. Since then, women have held steady in the lower wealth categories and the movement in the difference is driven by the decline in women at the top.

This U-shaped pattern suggests that the rise and decline of women in the top group cannot be accounted for by changes in the norms governing allocation of assets between spouses. The negative values for the 1940 through the 1970s is consistent with inherited wealth being (relatively) more important in the top group (unless wives in the top group received a higher share of wealth generated by the husband's than

²⁶The combination of the practice of awarding assets at divorce (and alimony) based on the notion that the financially weaker spouse (the wife) has a right to maintain the standard of living she has grown accustomed to, and the non-interventionist doctrine of leaving it up to the husbands (spouses after 1981, see *Kirshberg v. Feenstra*, 450 U.S. 455 (1981)) in ongoing marriages to determine what that (joint) standard of living is, see *McGuire v. McGuire*, 59 N.W.2d 336 (Neb. 1953), suggests that a wife has an entitlement to a fixed share of consumption but not necessarily an equal share in savings.

wives in lower groups, which we find implausible).

It is worth noting that a greater share of estates going to daughters may have also contributed to the more rapid rise in the fraction of women in the top wealth group. While equal division of estates became the norm among the less wealthy already in the late 19th century, we know less about the very wealthy and it may be that they continued to favor sons, but at a decreasing rate, well into the 20th century. One piece of evidence against this is our Table 3 that shows that the rise in the fraction of women 1900-1950 is driven by an increasing presence of inherited wealth, not by more women among those who inherit. Similarly, our Table 4 suggest that gender distribution of inherited wealth among the wealthy, while not yet exactly balanced, was already approaching parity at the end of the 19th century.²⁷ Furthermore, we are not aware of any tendency since the 1960s and onwards to increasingly favor sons.

Divorce and remarriage Easier divorce could lead to fewer women in the top wealth category if the upshot were that wealthy men spread their wealth over several wives rather than one. There were two waves of divorce law liberalization in the last century. The first took place in the 1930s and involved a few states and Mexico (a “loophole” in the divorce law recognizing divorces filed for there). The second wave, the so called “no-fault” revolution, took place in the 1970s, following California’s removing fault-grounds for divorce in 1969. Both waves of reforms are visible in our data (not shown). However, had the decline of women among the very wealthy been driven by serial monogamy on the part of men, we would have expected an increase in divorced women in the lower categories, something we do not observe. The rise in divorcées attributable to the later wave is confined to the top group. While it is possible that divorcées do not show up as such because of remarriage, we find it unlikely that remarriage would eliminate traces of increased “polygyny.”

Geographic composition As mentioned, in eight (mostly western) community property states, all wealth accumulated during marriage is owned jointly by husband and wife by default. Women are wealthier in community property states (for some years even wealthier than men), and it is thus conceivable that changes to the demo-

²⁷Fewer than 10% of women were listed as widows on this list, although as explained in the appendix, this is an imperfect classification.

graphic composition of the wealthy affects the gender wealth distribution. A growing share of the wealthy living in community property states may have contributed to the nationwide increase in the share of women in the early period, although the share of women grew in both types of states. However, geographic composition cannot account for the decline of women in the later period since that would have required a decline in the fraction living in community property states, the opposite of what happened, not shown.

4 Summary and Discussion

We propose that the fraction of women may reflect inter-generational wealth mobility: lower in periods of increasing shares of women and higher in periods of declining female shares. Estate tax returns data covering the period 1925-2000 show that the fraction of women among the wealthy rose sharply between 1925-1945 to peak in the 1960s. Since the 1970s, however, there has been a marked decline. In the top 0.01 percent, the fraction of women fell from almost one half to one third. Our hypothesis is also largely consistent with the fact that the fraction of women in the top wealth group moved in opposite direction of income inequality over the study period – if indeed spurts of economic growth coincide with the generation of new fortunes and greater inequality.

Traditionally, inheritance has been the route to wealth for women; the Forbes 400 lists confirm that despite female labor market gains, the primary route to wealth remains inheritance. Thus, the share of women may reflect a U-shaped pattern for “entrepreneurship” over the last century. We have presented several pieces of evidence supporting this hypothesis. First, data from the IPUMS about the fraction of the workforce that are employers show that entrepreneurship, thus measured, indeed followed a U-shaped pattern. Second, data from A Classification of American Wealth show that inherited wealth became increasingly more prominent sometime in the late 19th century. While this series ends in 1950, the Forbes 400 series indicate a decline in both the share of women and the share of inherited wealth since its initial publication in 1982. Third, the U-shaped pattern for entrepreneurship fits the timing of the so called second and third industrial revolutions. Rapid technological change may favor

upstarts in two ways: (i) it makes the existing capital stock obsolete; and (ii) it opens up the opportunity for newcomers to found prospering businesses. Thus, the initial rise in the share of women in the 1925-1969 period may be attributed to the passing down of fortunes generated during the “Gilded Age” (circa 1865-1914). The rise in women continued until the early 1970s, and the decline coincides with the start of the IT revolution.

Jovanovic and co-authors used stock market data on valuation of firms by vintage to identify the two periods of “creative destruction.” The gender wealth distribution provides additional distinct and supportive evidence for the importance of such forces. If founders are primarily men, we would expect rapid technological change to result in the top of the wealth distribution being both more male and less “dynastic,” and the share of women to rise in its aftermath as wealth is passed on – the findings of this paper.

A high share of capital income has been taken as evidence that rentiers are important (Piketty and Saez, 2003; Piketty, 2003). Our approach can complement such findings without relying on the distinction between labor and capital income that may not be meaningful for business owners. Furthermore, it may be affected by changes to corporate structure and taxation. If the question is whether the wealthy are thus because of their own industriousness, the gender wealth composition may shed additional light.

Other factors may have contributed to the development of the share of women among the wealthy. The increase is consistent with a shift of the population towards community property states, increasing graduation of the estate tax, and changing social norms emphasizing economic equality between the sexes. However, these factors are unlikely to have played a role in the subsequent decline. The migration to community property states observed in the later period, would predict a counterfactual increase in the fraction women. The graduation of the tax system did not change much in the later period, and while it is possible that women lost out in terms of intra-household bargaining power in the later part of the century, the fact that women have not lost ground in the lower wealth categories is inconsistent with such an interpretation. Changes in the tax treatment of marital transfers may have played a role in the decline, in particular, the unlimited marital deduction introduced in

1981. However, evidence from the population of singles, a group arguably unaffected by such changes, suggests that this cannot be the sole factor.

Our hypothesis that the share of women reflect the role of inherited wealth among the wealthy, and thus wealth mobility, is primarily a story about the top wealth brackets. For lower wealth brackets, the later decline was absent. There are several possible explanations for this. In lower wealth categories, the wife's entitlement is more likely to be proportional to the husband's assets than at higher wealth levels. Moreover, the wealth needed to enter, say the top 1 percent (corresponding to the richest 2 million adults) was "only" about one million dollars in 2000 (2000 dollars), a net worth well within the reach of a small business owner or professional at the end of her life. Thus, the share of women may have been boosted by women's greater earnings (directly and indirectly in the form of changes in the norms for asset allocation between spouses). Finally, while women declined in the top 0.1 percent of the wealth distribution, women who dropped out of this category were probably still wealthy and likely to show up in neighboring wealth categories. From 1976 to 2000, the wealth thresholds rose more in the higher wealth categories. This was especially true for the top 0.01%, where in 2000 dollars the wealth threshold rose by 13 million, while in wealth categories below the top 0.4 percent, the increase was less than one million. However, this effect can only be modest considering how small the top group is. In sum, the share of women in the lower wealth groups may have been sustained by a larger share of assets being jointly held (by spouses) in lower wealth groups, women's greater earnings, and, to some extent, a trickle-down from higher wealth groups.

Finally, we propose that the findings in this paper offer a potential explanation for why wealth concentration remained constant in the past 25 years despite the surge in income concentration. Figures 2a and 2b show that wealth concentration declined in the 1970s. We speculate that this reflected the erosion of the old wealth and that wealth concentration would have fallen further still if not for the inflow of new fortunes generated by the IT revolution in the 1980s and thereafter. There are primarily two reasons for why old wealth would decline. First, assuming that the old wealth dates from the Gilded Age, dilution from passing down the generations (due to its spread over more people, estate taxation, consumption) would result in a reduction in wealth concentration. Second, the decline in concentration in the 1970s is likely

driven by the stock market which has been connected to the arrival of new technology and the period of “creative destruction” noted by Jovanovic and co-authors. In other words, the arrival of new technology hurt incumbent firms (part of the “old wealth”) disproportionately.

Causes of long term changes in wealth mobility and concentration are hard to study empirically. In this paper we have proposed that the gender wealth composition provides an analytical handle on the issue.

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A Census data

We rely on the IPUMS data for 1920 through 2000 Censuses. For self-employment and entrepreneurship calculations, we define our sample as those between ages 18 and 65 who are in the labor force, excluding those living on farms. We rely on the variable *classwkr* (Class of Worker) to determine self-employment status (this category includes values of self-employed, employer, working on own account, self employed not-incorporated and self-employed incorporated, with different subsets of these available for different Censuses). To classify individuals as employers, we use the “Employer” value for 1920-1940 and “Self-employed, incorporated” for 1970-2000. Unfortunately, there is no guarantee that these values are strictly comparable and therefore the level differences between values up to 1940 and those starting in 1970 for the employer variable should be treated with caution.

For the purpose of computing the probability of a woman dying first, we proceed as follows. We assign to every individual in the IPUMS the mortality rate based on gender, age and year. Our mortality tables were obtained from the Human Mortality Database (www.mortality.org) and rely on the life tables constructed by the Office of the Actuary of the Social Security Administration (see Bell et al., 1992, for a full description of the methodology) and we (potentially) correct them using age-specific but constant socio-economic adjustments as in Kopczuk and Saez (2004b). In the baseline calculation, we weight each married or widowed individual by the mortality risk. The total number of families with one spouse dying in a given year is obtained by adding up these weights, while the total number of such families in which woman was the-first-to-die is obtained by adding up weights for married females and widowed men. Our parameter β is the ratio of the latter to the former. We considered two variations of this procedure. First, we corrected mortality rates using socio-economic mortality differentials as in Kopczuk and Saez (2004b). Second, we linked records for spouses and corrected weights for the possibility of the two spouses dying in the same year by subtracting for each of them a half of the product of mortality rates of both spouses. Both of these adjustments had very minor effect on β and no discernible effect on the estimates, the actual values we are using in the paper are based on the

last approach.²⁸

B Gender and Inheritances

None of the lists of the rich (Forbes, New York Tribune, Classification of American Wealth) specifies gender of the person. For the Classification and Forbes, we identify gender relying on first names. We proceed as follows. The Social Security Administration published (<http://www.ssa.gov/OACT/babynames/>) list of 1000 most popular names for men and women (by decade) starting in 1900, with their frequency. Some of the names show up both as male and female names, we use them if they are much more common (when aggregate over the decades) for one of the genders (specifically, if the ratio exceeds eight). Both Forbes list and the Classification contain indicators for having inherited wealth.

The New York Tribune applies to people alive in 1892 and therefore 20th century lists of names are an imperfect source of information. Furthermore, the list often includes only the first initial. On the other hand, the list often includes titles (e.g., mrs, miss, lady, mme, princess etc.) that are more informative than first names (e.g., the form of Mrs. John Smith is very common). It also includes short descriptions of the source of wealth that in many cases allow for identifying gender (e.g., a person may be referred to as a “daughter,” “widow,” “niece,” or a phrase such as “left her,” “from her” and so on can be used). We use a simple pattern matching algorithm to identify all such cases and classify them as women. We supplement it with matching on first names as described above, with classification based on the titles and description taking precedence (so that we do not mis-classify Mrs. John Smith). We assign individuals an inheritance dummy based on the description, again using pattern matching to identify phrases indicating inheritance.

C Estate tax data

Methodology for constructing estate tax tabulations is identical as in Kopczuk and Saez (2004b). Tabulations for “decedents” use adult deaths as a population basis. We

²⁸We also repeated the same results by education and the results are very similar. However, education measures are available only starting with 1940.

classify states into marital property regimes in 1970 following Gray (1998, Table 1). When splitting the sample by marital property regime, we exclude Wisconsin because this state changed its category in 1986.

Table 1: Number of observations in the estate tax microdata by year and group

Year	Number of observations				Population size			
	Top 0.01%	.01 – .05	0.05 – 0.10	0.10 – 0.40	Top 0.01%	.01 – .05	0.05 – 0.10	0.10 – 0.40
1925	104	409	512	3066	102	409	511	3064
1926	109	433	541	3239	108	432	540	3238
1927	105	417	521	3122	104	416	520	3120
1928	114	451	564	3378	113	450	563	3376
1929	116	457	571	3425	114	456	570	3422
1930	112	442	552	3309	110	441	551	3308
1931	112	444	555	3324	111	443	554	3322
1932	113	448	560	3218	112	447	559	3352
1933	112	443	554	3320	111	442	553	3318
1934	116	461	575	3446	115	459	574	3444
1935	118	465	582	3485	116	464	581	3484
1936	126	500	624	3740	125	498	623	3738
1937	124	492	615	3683	123	491	614	3682
1938	119	470	587	3519	117	469	586	3518
1939	121	480	599	3593	120	479	598	3590
1940	124	493	615	3689	123	492	614	3686
1941	122	485	605	3628	121	483	604	3626
1942	122	482	602	3611	120	481	601	3608
1943	128	509	635	3806	127	507	634	3804
1944	125	493	616	3695	123	492	615	3692
1945	125	494	617	3701	123	493	616	3698
1962	162	642	802	4808	160	641	801	4806
1965	170	674	843	5052	168	673	842	5050
1969	181	717	896	5029	179	716	895	5372
1972	186	740	925	5544	185	739	924	5542
1976	183	726	907	5438	181	725	906	5436
1982	186	736	914	5439	189	756	945	5670
1983	182	524	61	133	194	775	969	5814
1984	187	703	61	161	196	784	980	5880
1985	196	730	206	292	201	803	1004	6022
1986	204	796	676	3044	203	810	1013	6078
1987	206	814	506	511	205	818	1023	6138
1988	209	819	652	582	209	836	1045	6270
1989	209	819	912	2911	207	829	1036	6218
1990	209	786	826	759	207	829	1036	6218
1991	210	691	489	1661	210	838	1048	6286
1992	212	843	1048	2269	211	842	1053	6316
1993	221	712	463	1992	220	879	1099	6594
1994	222	712	477	2005	221	884	1105	6632
1995	225	882	1110	2649	225	899	1124	6742
1996	226	899	508	2069	225	901	1126	6758
1997	227	901	628	2156	225	901	1127	6762
1998	228	906	1133	3761	228	911	1139	6832
1999	234	931	807	1695	233	933	1166	6996
2000	235	932	829	1315	234	938	1172	7032

Table 2: Forbes 400: 1982-2003

Year	#Women	%Women	# with inheritance			% with inheritance		
			Total	Women	Men	Total	Women	Men
1982	72	0.18	143	64	78	0.36	0.89	0.24
1983	74	0.19	142	67	74	0.36	0.91	0.23
1984	67	0.17	135	60	74	0.34	0.90	0.22
1985	83	0.18	159	75	83	0.34	0.90	0.22
1986	88	0.19	150	76	73	0.32	0.86	0.19
1987	87	0.18	143	73	69	0.29	0.84	0.17
1988	66	0.14	107	52	55	0.23	0.79	0.14
1989	67	0.14	114	51	63	0.24	0.76	0.16
1990	70	0.16	109	51	58	0.24	0.73	0.15
1991	74	0.16	110	51	59	0.24	0.69	0.16
1992	70	0.16	107	49	58	0.24	0.70	0.15
1993	73	0.16	104	49	55	0.23	0.67	0.15
1994	76	0.17	105	50	55	0.23	0.66	0.15
1995	75	0.17	96	46	50	0.21	0.61	0.13
1996	76	0.17	99	47	52	0.22	0.62	0.14
1997	73	0.16	91	42	49	0.20	0.58	0.13
1998	69	0.15	87	40	47	0.19	0.58	0.12
1999	67	0.14	84	37	47	0.18	0.55	0.12
2000	49	0.12	58	24	34	0.14	0.49	0.10
2001	47	0.12	60	25	35	0.15	0.53	0.10
2002	49	0.12	58	26	32	0.14	0.53	0.09
2003	52	0.13	66	30	36	0.16	0.58	0.10

Table 3: Heirs and heiresses among the wealthy, 1800-1950

Year	Obs.	% Inheritance			% Women			$\frac{\text{Heiresses}}{\text{Heirs}+\text{Heiresses}}$		
		All	400	100	All	400	100	All	400	100
1800	151	0.27		0.28	0.17		0.11	0.40		0.33
1825	157	0.23		0.19	0.15		0.12	0.40		0.53
1850	275	0.16		0.12	0.06		0.07	0.27		0.45
1875	441	0.15	0.13	0.08	0.10	0.08	0.08	0.51	0.51	0.75
1900	422	0.22	0.21	0.13	0.15	0.14	0.09	0.60	0.60	0.50
1925	990	0.45	0.37	0.21	0.34	0.27	0.12	0.62	0.62	0.32
1950	735	0.61	0.49	0.28	0.43	0.37	0.22	0.64	0.64	0.52

Note: the first column contains the number of individuals included in the Classification of American Wealth for a given year. Columns marked “400” and “100” correspond to Top 400 and Top 100 individuals from the lists. The table shows the share of those with wealth primarily derived from inheritance, the share of women on the list and the share of women among those with inheritances, respectively.

Source: A Classification of American Wealth, http://www.raken.com/american_wealth/index.asp, accessed January 27th, 2006.

Table 4: 1892 Millionaires

Gender	Inheritance		Total
	No	Yes	
Man	2366	417	2783
Woman	74	348	422
Total	2440	765	3205

Note: The full list includes 4056 individuals, the table relies only on those whose gender we were able to establish. See the appendix for explanation of our algorithm.

Figure 1a: Fraction of females among decedents



Figure 1b: Fraction of females in the population



Figure 2a: Wealth and Income Inequality, top 0.01%

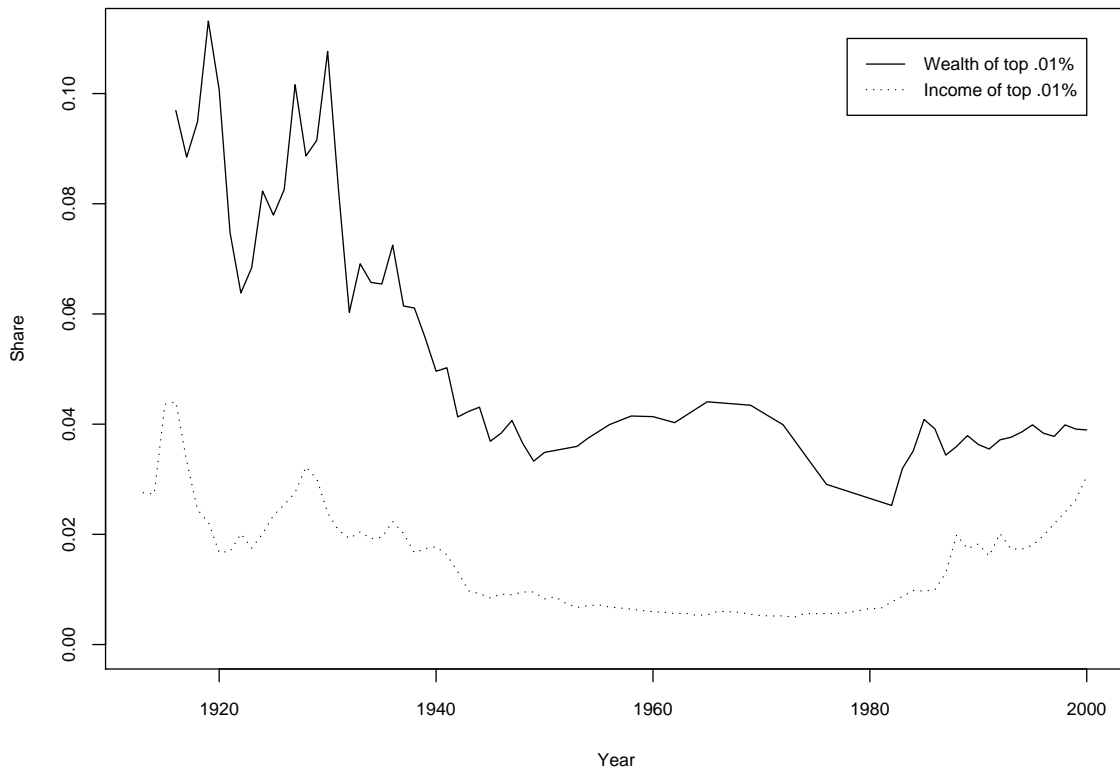


Figure 2b: Wealth and Income Inequality, top 1%



Figure 3: Entrepreneurship measured by self-employment or employers in IPUMS

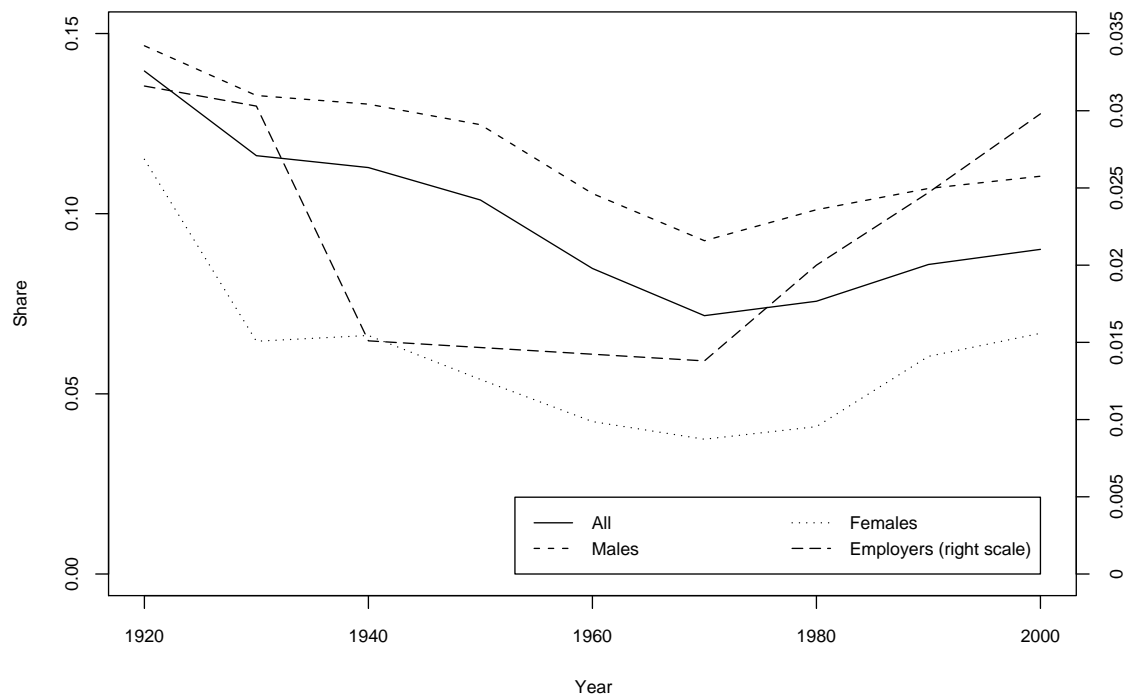


Figure 4a: Single men and women in top 0.1%, decedent

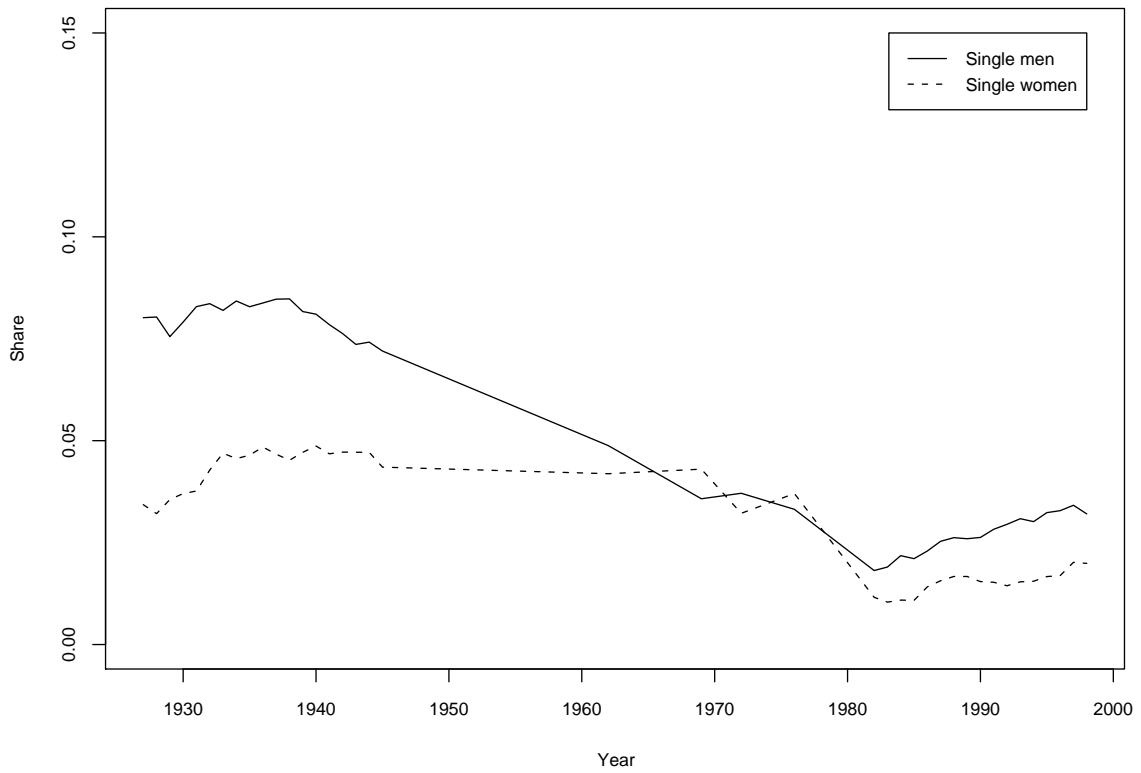


Figure 4b: Single men and women in top 0.1%, living

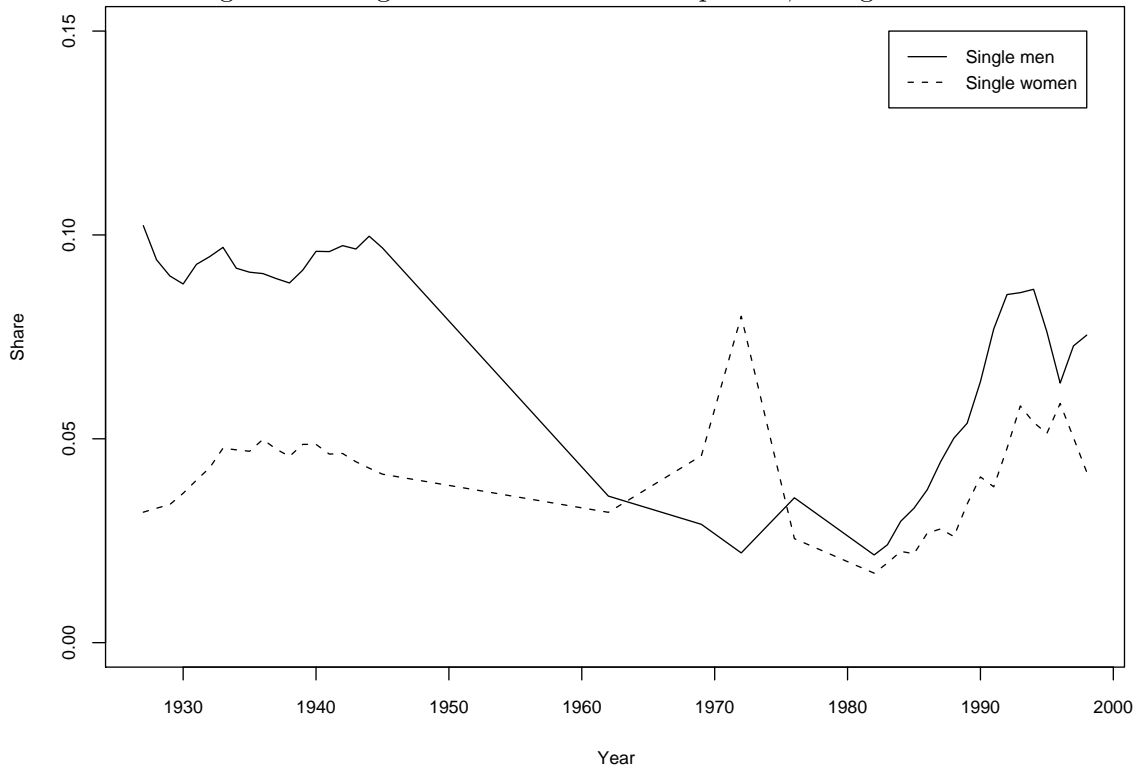


Figure 5a: Share of entrepreneurs implied by single men and women, decedent

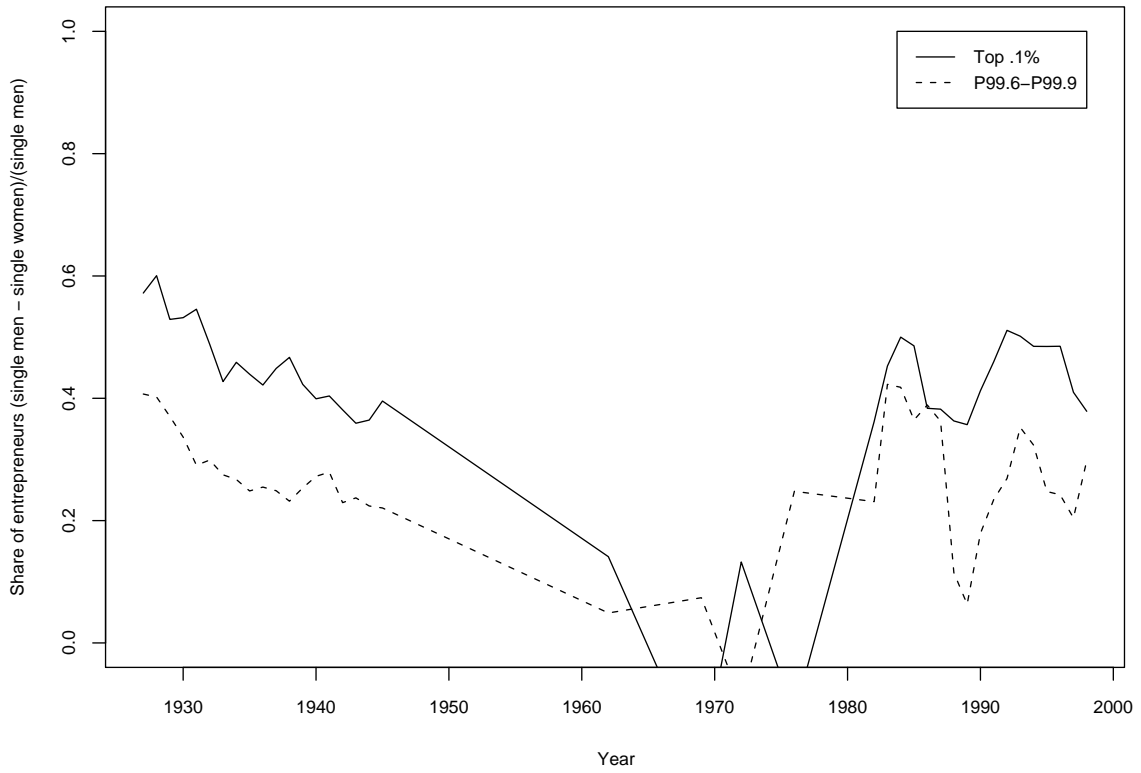


Figure 5b: Share of entrepreneurs implied by single men and women, living

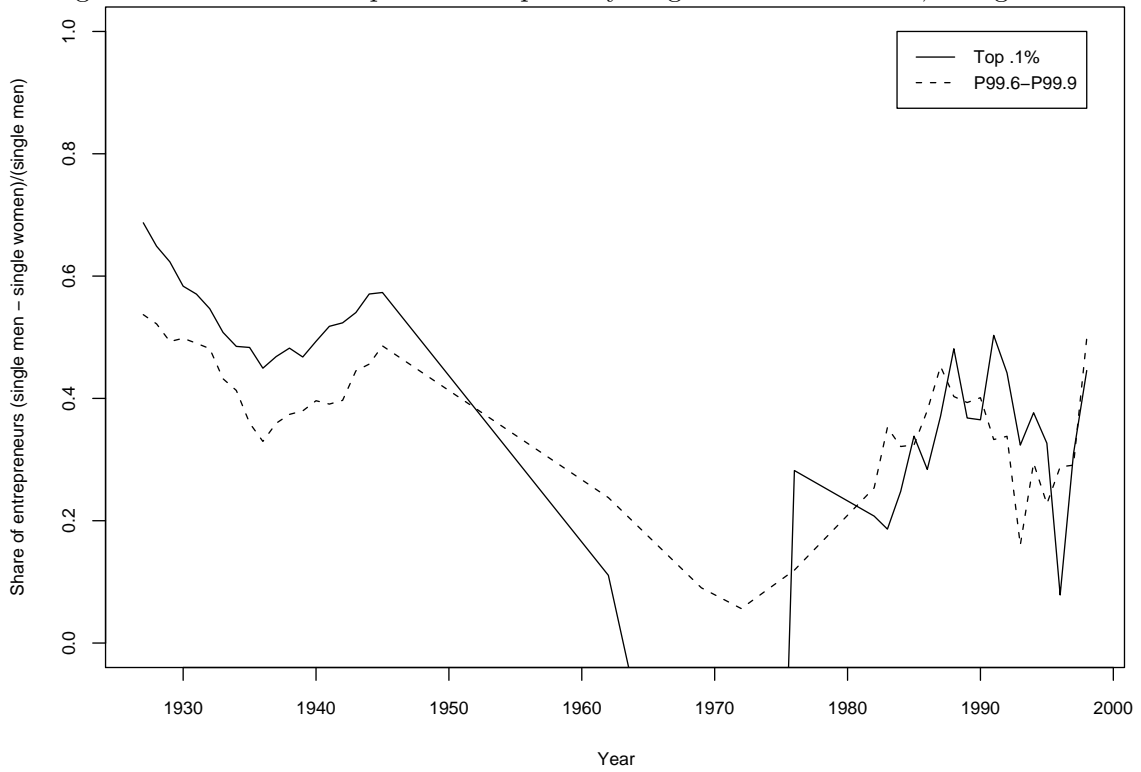


Figure 6a: Share of entrepreneurs implied by married men and women, all states, decedents



Figure 6b: Share of entrepreneurs implied by married men and women, all states, living



Figure 7a: Share of entrepreneurs implied by married men and women, common law states, decedents



Figure 7b: Share of entrepreneurs implied by married men and women, common law states, living

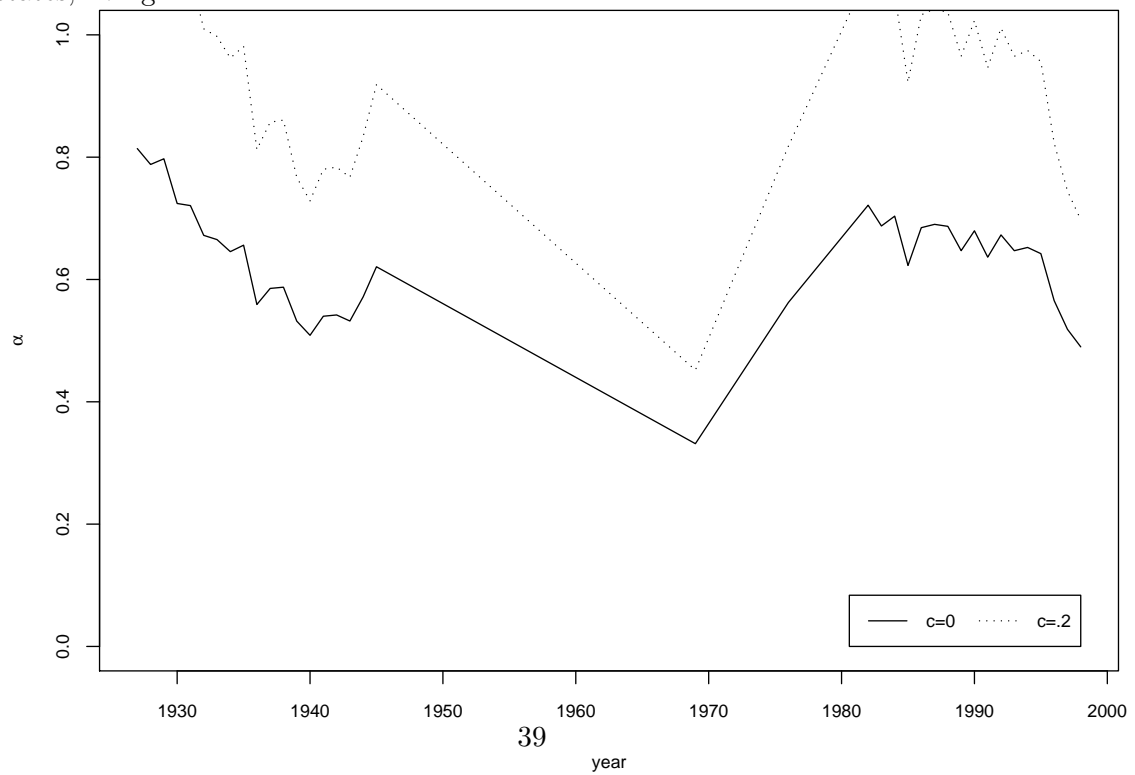


Figure 8: Difference between share of women in P99.6-99.9 and top 0.01%



Figure 9a: Marital-gender categories in the top 0.01%, decedents



Figure 9b: Marital-gender categories in the 0.01-0.4% category, decedents



Figure 10a: Marital-gender categories in the top 0.01%, living



Figure 10b: Marital-gender categories in the 0.01-0.4% category, living



Figure 11: Share of marital deduction in net worth above the exemption, by wealth category

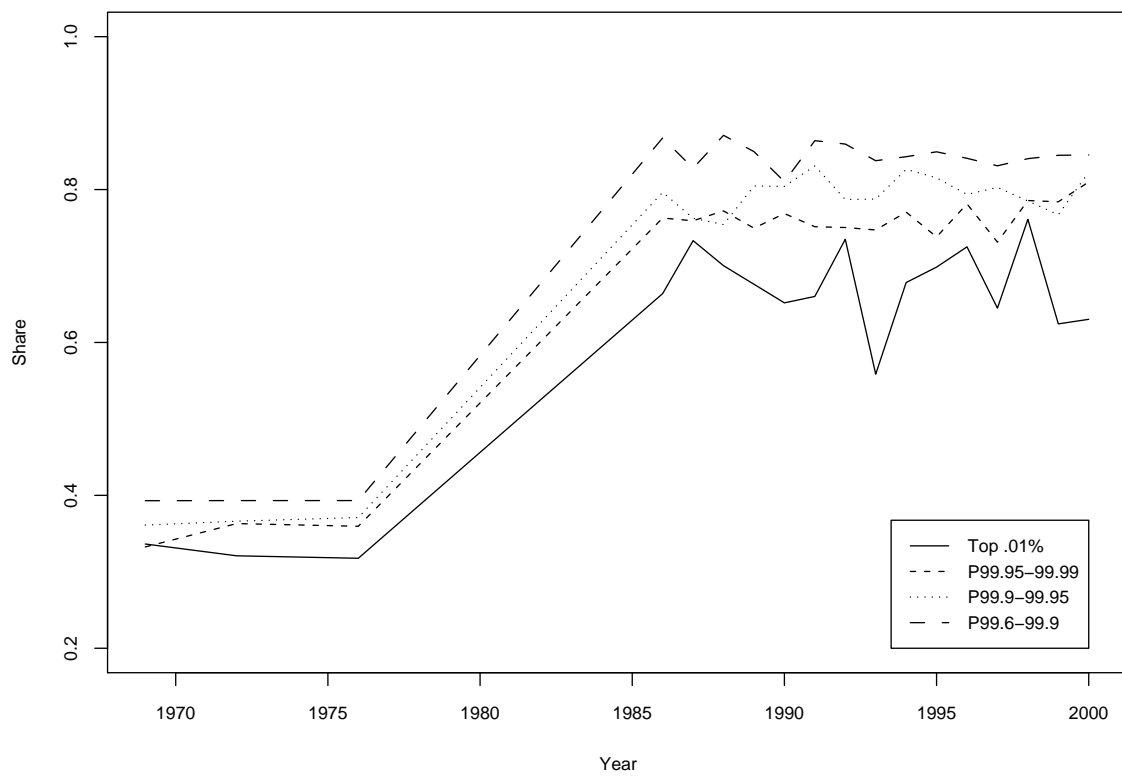


Figure A-1a: Model estimates, all states

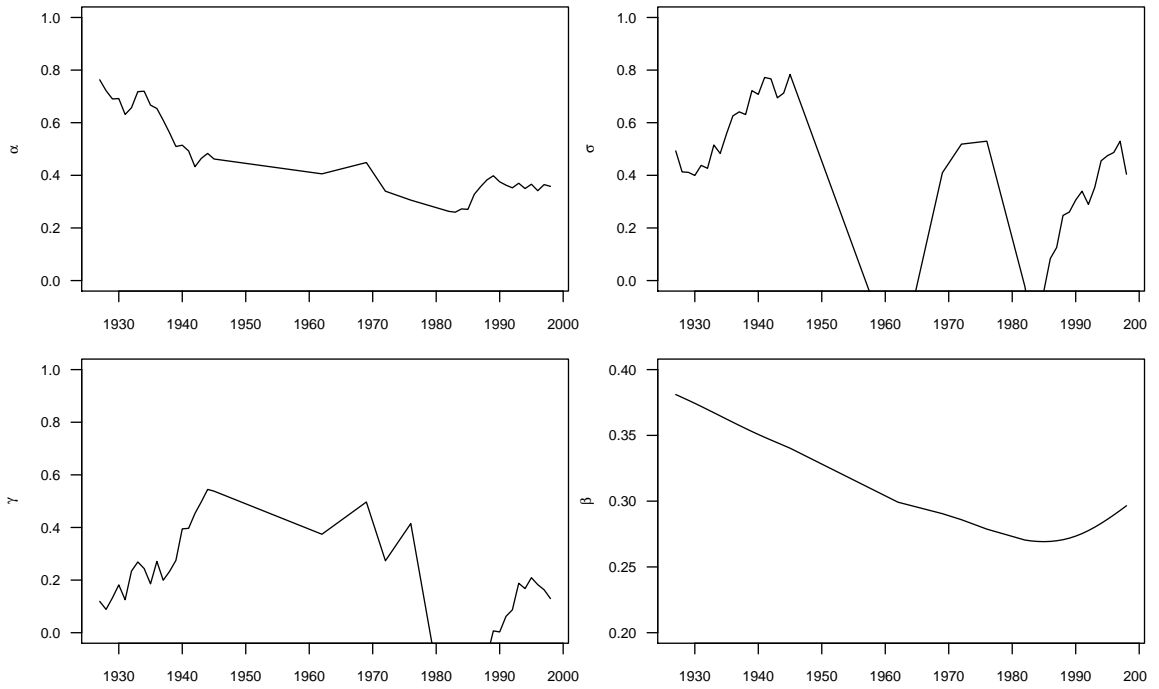


Figure A-1b: Model estimates, common law states

