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A COMPARATIVE ANALYSIS OF HOUSEHOLD WEALTH PATTERNS IN FRANCE AND THE UNITED STATES

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We find that household wealth is distributed more unequally in the U.S. in 1983 than France in 1986. The Gini coefficient is 0.77 for the U.S. and 0.71 for France. There are also significant differences in the composition of wealth. Owner-occupied housing accounted for half of total assets in France, and only 30 percent in the U.S., while corporate stock and financial securities amounted to 19 percent in the U.S. and 8 percent in France. The debt-equity ratio was 0.13 in France and 0.20 in the U.S. The age-wealth profile in the two countries had the characteristic hump-shape predicted by the life-cycle model, but the profile was much flatter in France and peaked for families aged 50–59 in France, compared to 60–69 in the U.S.

I. INTRODUCTION

Is wealth distributed more equally in France or the U.S.? Are there other differences in the size distribution of household wealth between the two countries? Do wealth accumulation patterns differ? Are life-cycle effects stronger in one than the other? Are there any other identifiable cross-Atlantic differences in wealth accumulation behavior? Are there significant differences in portfolio composition? Are American households more debtridden than corresponding French ones?

This paper will try to shed light on some of these issues and, as such, represents, as far as we are aware, the first systematic attempt at an international comparison of household wealth distribution based on microdata.[1] Analogous work on international comparisons of household income based on national microdatabases has been going on for the last several years and has already produced several important studies.[2] One of the major problems that this work

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[1]Both authors have presented comparative international estimates of household wealth inequality for a number of countries. However, these estimates were based on published data, and no attempt was made to correct the original sources for differences in wealth accounting concepts. See, for example, Kessler and Masson (1987) and Wolff (1991).

[2]A large number of these are based on the Luxembourg Income Study (LIS) database. See, for example, Smeeding, Schmauss, and Allegreza (1985) for a description of the database and Buhman *et al.* (1988) for a recent comparative study.

has had to overcome is differences in concepts of income in the various countries. Similar, and indeed, more formidable problems are encountered in the construction of compatible household balance sheets between two countries, because wealth accounting is more complex than that of income.

Difficulties emerge from two sources. First, the concept of wealth that is used in the national balance sheets differs between countries. Certain assets, such as trust funds, appear in the U.S. wealth accounts but not in the French, and conversely. Moreover, the allocation rules used to categorize household wealth into asset category differs for certain components. For example, checking accounts held by an unincorporated business are counted as part of time deposits in the French accounts, but as part of the value of unincorporated businesses in the U.S. accounts. Second, the actual surveys used for the comparative estimates differ both in terms of asset coverage and degree of underreporting. One of us has discussed at some length the difficulties in comparing estimates of the size distribution of household wealth drawn from different surveys for a single country [see Wolff (1989)]. These difficulties are compounded in international comparisons, because the underlying wealth concepts also differ.

There are five sets of factors that might be responsible for differences in the structure and distribution of wealth in different countries. First, differences in preferences may affect wealth accumulation patterns. They may account for differences in savings rates, bequest behaviour, the types of assets owned, and labor force participation rates. Second, demographic structure may differ between countries. Of particular importance for wealth distribution are the age structure of the population and family size and composition. Third, there are differences in economic environments between countries. These may be manifested in the degree of income inequality, national growth rates, inflation rates, productivity growth, the degree of international openness, and the like.

Fourth, institutional environments may also differ. There are several examples of relevance here. In France, public ownership of firms is considerably more extensive than in the U.S., accounting in part, as will be seen below, for the much smaller weight of corporate stock in the household portfolio in France. In the U.S., private pensions are funded, whereas in France neither private nor public pensions are funded. This will affect both the composition and distribution of wealth in the two countries. Another difference is that in France, there are explicit marriage contracts that define the way in which wealth is to be pooled and divided between husband and wife, whereas, in the U.S., marriage contracts are very unusual. Tax structure and composition, particularly with regard to income, consumption, and inheritance, and inheritance practices will also affect household wealth accumulation patterns.

Fifth, the availability of assets and asset markets differs between countries and affects the type of savings that can be made. For example, transaction costs on housing are much higher in France than the U.S., thus limiting turnover of houses in France. In France, trust funds are not available, whereas in the U.S. they are a source of investment for the wealthy. Retained earnings are much more important in the U.S. than in France, thus increasing the importance of capital gains on stocks as a source of wealth accumulation in the U.S. In the U.S., until recently, Regulation Q provided for a fixed interest rate on savings

accounts and no interest on checking, thus affecting savings in these forms of assets. In France, government treasury bills were not issued until recently, and when they were made available, a large shift was recorded in the household wealth portfolio.

Four sets of comparative results are shown: (i) the composition of the aggregate wealth portfolio; (ii) the size distribution of household wealth; (iii) mean wealth by household income, age of the household head, and family size; and (iv) household portfolio composition by wealth and age group.

The most striking result of the study is that wealth is distributed more equally in France than the U.S. The Gini coefficient for gross wealth is 0.71 for France in 1986 and 0.77 for the nearest corresponding definition of gross wealth for the U.S. in 1983.

We also find significant differences in the aggregate portfolio. The gross value of owner-occupied housing amounted to about half of total assets in France in 1979, and only 30 percent in the U.S. in the same year, while the share of corporate stock and financial securities was 8 percent in the former and 19 percent in the latter. The aggregate debt-equity ratio was 0.13 in France and 0.20 in the U.S. Moreover, the age-wealth profiles in the two countries both have the characteristic hump-shape predicted by the life-cycle model, but the profile is much flatter in France and peaks for families aged 50–59 in France, compared to 60–69 in the U.S.

The remainder of the paper is divided into four parts. The next section (Part II) describes the methodological issues entailed in the construction of compatible wealth accounts between the two countries. Part III provides a description of the microdatabases used in the study. Part IV presents comparative estimates of the size distribution of household wealth, wealth profiles by household characteristics, and portfolio composition in the two countries. Concluding remarks are made in the last section.

II. The Construction of a Consistent Set of Household Balance Sheets

Table 1 shows the original household balance sheets for France and the U.S. in 1979. The accounts are similar in most respects. Both divide real estate into two categories: owner-occupied housing and other real estate, including vacant land. Both sets of accounts have a similar breakdown of financial assets into (i) currency and demand deposits; (ii) time deposits and savings accounts; (iii) bonds; (iv) other financial assets; and (v) corporate stock shares. In both accounting systems, liabilities are separated into mortgage debt and other debt.

However, there are several striking differences in the classification schemes. First, the U.S. accounts include the value of consumer durables and so-called household inventories (clothing and other semi-durables) in the household portfolio. In the French accounts these items are treated as consumption expenditures in the National Income and Product Accounts and therefore are not included in the household balance sheet. Second, in the U.S. accounts, the value of unincorporated businesses is reported as a consolidated entry. In the French accounts, the value of unincorporated business is broken down and recorded by subcom-

TABLE 1

ORIGINAL HOUSEHOLD BALANCE SHEETS FOR FRANCE AND THE UNITED STATES, 1979

	France	United States
I. Assets	FF 7,467	$9,111.1
A. Non-financial assets	5,162	5,261.6
1. Owner-occupied housing	3,751	2,371.4
2. Other real estate[a]	889	719.9
3. Consumer durables	—	925.3
4. Household inventories	—	190.8
5. Unincorporated business		
a. Farm		693.0
b. Non-farm		361.2
c. Equipment	209	
d. Inventories (business)	114	
e. Livestock	54	
f. Intangible assets	145	
B. Financial assets	2,305	3,849.5
1. Currency and demand deposits	452	250.3
2. Time deposits and savings accounts[b]	1,109	1,201.3
3. Corporate, government & other bonds	183	315.6
4. Other financial instruments & credits[c]	33	221.0
5. Corporate stock shares[d]	364	745.9
6. Trust funds	—	229.8
7. Insurance[e]	164	186.0
8. Pension reserves	—	699.6
II. Liabilities	843	1,336.3
1. Mortgage debt	710	856.8
2. Short-term debt[f]	133	479.5
III. Net worth	FF 6,624	$7,774.8

Note: Household balance sheets are valued as of December 31, 1979. Values for the U.S. are in billions of (U.S.) dollars; values for France are in billions of (French) francs. Source for the French data is Kessler and Masson (1987), Table 7.1, p. 143; sources for the U.S. data are Ruggles and Ruggles (1982), Table 2.40, and Wolff and Marley (1989), Table A.1.

[a]Includes the value of vacant land.

[b]For the U.S., this includes certificates of deposits and money market funds.

[c]For France, this includes miscellaneous short-term and long-term credits; for the U.S., this includes security credits, open-market paper, mortgate (assets), and other fixed claims.

[d]For the U.S., this also includes the value of mutual funds, investment club holdings, and call money accounts at stock brokerage firms.

[e]For France, this is the value of the reserves of the insurance system; for the U.S., this is the cash surrender value of life insurance.

[f]For the U.S., this includes credit card debt, installment debt, other consumer debt, and miscellaneous liabilities.

ponent. In particular, the value of equipment owned by the business, business inventories, and livestock (in the case of farms) are valued separately. Moreover, the French accounts include an estimate of the "intangible capital" of a small business, which refers to the "good will" and active list of customers of the enterprise. This component is particularly important for medical and legal practices, whose chief value is the reputation of the owner. Another difference is that

checking accounts and other financial assets owned directly by the company (i.e. in the company's name) are treated as part of the valuation of the unincorporated business in the U.S. accounts, whereas in the French system, they are included in the financial assets of the household sector.[3]

Third, in the U.S., trust funds are an important asset. Trust funds consist of assets which are not directly or legally owned by the family, but whose income is directly for the benefit of an individual or family. In France, this financial instrument does not exist. Indeed, the legal concept of a trust fund appears only in common law countries; this concept is absent from the Napoleonic code. Fourth, the handling of insurance and pensions is different in the two systems. In the French accounts, the full reserves of the insurance system are included in the household balance sheet, whereas in the U.S. only the cash surrender value (CSV) is included. The CSV of life insurance is the equity built up by individuals in full life insurance plans. This equity is very similar to a savings account, except that it is more difficult for an individual to draw against his or her life insurance savings than against a traditional savings account. The reserves in the life insurance system which exceed the CSV are treated as part of the holdings of the corporate sector.[4]

Moreover, in France the pension system is run on a pay-as-you-go basis, so that pension expenditures appear in the household income statement, but there are no reserves in the system. In the U.S., on the other hand, contributions into private pension plans are accumulated in the form of reserves, and these have grown to be substantial in recent years. The U.S. system therefore has an entry for private pension reserves, which has no counterpart in the French balance sheet.[5]

Conformable Accounts. The creation of conformable accounts, shown in Table 2, involved six steps. First, we eliminated consumer durables and household inventories from the U.S. accounts. Second, we created a single unincorporated business category for the two countries. We could not rectify the discrepancy in the treatment of deposits and financial assets held by unincorporated businesses in the two sets of accounts. This difference will bias upward the value of unincorporated businesses in the U.S. accounts relative to the French accounts and bias downward the value of deposits and financial assets in the U.S. relative to France. Third, we created a single category for financial securities, which includes all government bonds, corporate bonds, open market paper, mortgage assets, miscellaneous short-term and long-term credit, and other fixed claims.

[3]Another difference is that loans made by a family to the family business are treated as an asset held by the household sector in the U.S. accounts, while in the French system, this loan would not appear in any entry, since the accounts are fully consolidated.

[4]However, quantitatively, the difference between the two is not very great. Over the postwar period in the U.S., the CSV of life insurance plans has typically amounted to about 90 percent of the reserves. See Ruggles and Ruggles (1982) for details.

[5]It should be noted that different economists treat pension reserves differently in the household balance sheets. Ruggles and Ruggles (1982) include only the CSV of pension reserves directly in the household balance sheet, since this is the only portion which is immediately fungible. We, on the other hand, prefer to include the full reserves of the system as part of household wealth, since the reserves of the pension system, like those held in private trust, are accumulated directly for the benefit of households. There are, however, many difficulties in imputing pension reserves to individual households [see Wolff (1987b), for example].

TABLE 2

CONFORMABLE HOUSEHOLD BALANCE SHEETS FOR FRANCE AND THE UNITED STATES, 1979

	Aggregate Totals		Percent of Total Assets	
	France (FF)	U.S.A.($)	France	U.S.A.
I. Assets	7,467	8,015.7	100.0	100.0
A. Non-financial assets	5,162	4,145.5	69.1	51.7
1. Owner-occupied housing	3,751	2,371.4	50.2	29.6
2. Other real estate	889	719.9	11.9	9.0
3. Unincorporated business (total)	522	1,054.2	7.0	13.2
B. Financial assets	2,305	3,870.2	30.9	48.3
1. Currency and demand deposits	452	250.3	6.1	3.1
2. Time deposits and savings account	1,109	1,201.3	14.9	15.0
3. Financial securities	216	579.8	2.9	7.2
4. Corporate stock shares	364	932.5	4.9	11.6
5. Insurance reserves	164	206.7	2.2	2.6
6. Pension reserves		699.6		8.7
II. Liabilities	843	1,336.3	11.3	16.7
1. Mortgage debt	710	856.8	9.5	10.7
2. Short-term debt	133	479.5	1.8	6.0
III. Net worth	6,624	6,679.4	88.7	83.3
Addendum				
a. S-wealth[a]	4,902	4,072.0	74.0	60.9
b. K-wealth[b]	1,722	2,607.4	26.0	39.1
Number of households (1,000s)[c]	18,965	78,364		
Populations (1,000s)[d]	53,606	225,055		
Average household size	2.83	2.87		
Exchange Rate	4.25			
Net worth per household	$82,182	$85,236		
Net worth per capita	$29,075	$29,679		
PPP Conversion Rate[e]	5.12			
Net worth per household	$68,218	$85,236		
Net worth per capita	$24,134	$29,679		
Net worth/disposable income[f]	3.75	4.05		

Note: Unless otherwise indicated, values for the U.S. are in billions of (U.S.) dollars; values for France are in billions of (French) francs.

[a]Life-cycle or S-wealth is defined as the sum of net equity in owner-occupied housing, cash and demand deposits, time and savings deposits, life insurance savings, and pension reserves.

[b]Capital wealth or K-wealth is defined as the sum of financial securities, corporate stock, trust fund equity, and unincorporated business equity less consumer debt and mortgage debt on other (non-home) real estate.

[c]*Source*: U.S. Bureau of the Census (1987), Table 56.

[d]*Source*: Council of Economic Advisers (1987), Table B-30.

[e]*Source*: Ward (1985).

[f]*Source*: Council of Economic Advisers (1987), Table B-26.

Fourth, on the basis of a comparison of Flow of Funds data and the Ruggles and Ruggles (1982) data for 1979, we determined that 81 percent of the holdings of trust accounts consisted of corporate stock shares and the remaining 19 percent of financial securities.[6] We distributed the holdings of trust funds in these proportions over their respective asset components. It should be noted that it was implicitly assumed that U.S. households would have accumulated these assets in the absence of trust funds. The amount of wealth held in trust funds is probably greater than households would have saved in their absence, because of the preferential tax treatment accorded trust funds in the U.S.

Fifth, for consistency, we included the total reserves of the insurance system in the U.S. accounts, rather than their CSV. Sixth, we decided to retain pension reserves in the U.S. accounts. The argument is similar to that of trust funds—namely, that in the absence of a pension system, families would have accumulated these reserves privately. The argument is, perhaps, less tenuous for pensions than trust funds, since, institutionally, most contributions to pension funds are made directly by employers and the funds are controlled and operated by the employer. On the other hand, insofar as the pension reserves are for the direct benefit for individuals, they do represent part of the wealth of the household sector.

Comparative results are also shown in Table 2. Let us first consider differences in the level of wealth per household and per capita in the two countries. In the U.S., average net worth per household was $85, 236; in France, on the basis of the prevailing exchange rate in 1979, it was $82,182, or 4 percent less. The average household size was slightly smaller in France, so that the average net worth per capita was almost identical in the two countries on the basis of exchange rates. However, the purchasing power parity (PPP) conversion rate was greater than the exchange rate in 1979. On a PPP basis, average wealth was about 20 percent lower in France than the U.S. Moreover, the ratio of net worth to disposable income was somewhat higher in the U.S. than in France.

We next compare aggregate portfolio composition. There are some striking differences. In France, non-financial assets comprised 69 percent of total assets, compared to 52 percent in the U.S. In particular, the (gross) value of owner-occupied housing amounted to about half of total assets in France, and only 30 percent in the U.S. Even more striking is a comparison of the net value of owner-occupied housing as a share of net worth. We first distributed the mortgage debt in each country proportionately between the value of owner-occupied homes and the value of other real estate. Our estimated net equity in owner-occupied housing amounted to 48 percent of net worth in France, and only 26 percent in the U.S. The share of (gross) other real estate in total assets was slightly higher in France than the U.S., 12 percent compared to 9 percent. On the other hand, the value of unincorporated businesses amounted to 13 percent of total assets in the U.S., and only 7 percent in France, though, as discussed above, there is an upward bias in the U.S. figure relative to the French one.

[6]The Flow of Funds "household sector" actually includes holdings of trust funds and estates, as well as those of non-profit organizations, whereas the Ruggles and Ruggles data are exclusively for the household sector. The source for the Flow of Funds data is Board of Governors of the Federal Reserve System (1985), p. 6.

Among financial assets, the major difference between the two countries is in the share of corporate stock in total assets, which amounted to 12 percent in the U.S. and 5 percent in France. Financial securities were also more important in the U.S., comprising 7 percent of total assets, compared to 3 percent in France. However, currency and demand deposits were more important in France, totaling 6 percent of gross wealth, in contrast to 3 percent. Time deposits and savings accounts, as well as insurance reserves, were of similar importance.

Another important difference is in the degree of household indebtedness. In France, total household liabilities amounted to 11 percent of gross assets, compared to 17 percent in the U.S. Alternatively, the debt-equity ratio among households was 0.13 in France and 0.20 in the U.S. In France, mortgage debt comprised 84 percent of total household debt, in comparison to 64 percent in the U.S. Indeed, the ratio of mortgage debt to total assets was about the same in the two countries. The major difference is in short-term debt, which amounted to 7 percent of net worth in the U.S. and only 2 percent in France.

Finally, on the basis of earlier work [Wolff (1981) and Kessler and Masson (1987)], we divided total wealth into two components. The first is what we previously called "life-cycle" or "S-wealth", since its pattern of accumulation seems to be heavily age-dependent, in accord with the so-called "life-cycle model" [see Modigliani and Brumberg (1954)]. This component is defined here as the sum of net equity in owner-occupied housing, cash and demand deposits, time and savings deposits, life insurance savings, and pension reserves. The second is what we called "capital wealth" or "K-wealth," since households appear to accummulate this form of wealth in order to build up large estates and transmit the wealth to succeeding generations. This is defined as the sum of financial securities, corporate stock, trust fund equity, and unincorporated business equity less consumer debt and mortgage debt on other (non-home) real estate. In the U.S., S-wealth comprised three-fifths of household wealth and K-wealth about two-fifths. In contrast, almost three-quarters of the wealth held by French households was in the form of S-wealth, and only one fourth in the form of K-wealth.

III. A Description of the Microdatabases

We use two sources of French data. The first is the 1986 Enquete sur les Actifs Financiers conducted by the Institut National de la Statistique et des Etudes Economiques (INSEE). The sample size of the 1986 INSEE survey is 5,602 families. This survey has a complex survey design, which is stratified by various socio-demographic characteristics. However, there is no special stratification by high income. The other source of data is the 1980 CREP survey of 3,000 households, which is a representative sample.

For the U.S., we use the 1983 Survey of Consumer Finances (SCF), conducted by the Federal Reserve Board. The 1983 SCF has a sample size of 4,262 families. Of these, 3,824 were randomly drawn and thus constitute a representative sample. The remaining 438 families constitute the so-called "high-income supplement". These families were selected on the basis of their income from a special sample created by the Internal Revenue Service from income tax returns. Five thousand

families with adjusted gross income above $80,000 were included in the original sample and sent questionnaries. Of these, 438 responded. Weights were then created by the Federal Reserve Board to combine the two samples [see Avery, Elliehausen, and Kennickell (1988) for details].[7]

All three surveys have a wide range of questions on household assets and liabilities, as well as sources of income. However, the 1986 INSEE survey originally coded the wealth and income information in intervals. This limitation has been partly overcome by INSEE statisticians, who have imputed actual values for gross wealth using the econometric model of simulated residuals [see Gourieroux et al., (1987)]. Unfortunately, the information on household debt and net wealth has not been corrected. We use the 1980 CREP survey whose wealth entries are recorded in francs for specific assets, liabilities, and portfolio composition. This survey is roughly consistent with the national balance sheet totals of that year.[8]

The raw survey data from the 1983 SCF was transformed to conform with the French accounting system.[9] We basically followed the same procedure as for the aggregate data. First, we eliminated automobiles (the only consumer durable reported in the 1983 SCF) from the U.S. data. Second, we created a single category for financial securities, which includes all government bonds, corporate bonds, open market paper, mortgage assets, miscellaneous short-term and long-term credit, and other fixed claims. We also included the "miscellaneous asset" category in the 1983 SCF data.[10]

Third, we allocated 81 percent of trust fund holdings to corporate stock and the remaining 19 percent to financial securities. Fourth, for consistency, we included the total reserves of the insurance system in the U.S. data, rather than their CSV. This was effected by scaling upward each entry for life insurance in the survey data by the ratio of the balance sheet total for life insurance reserves (206.7 billion dollars) to the survey total for the CSV of life insurance.

Fourth, we devised a procedure to distribute the total private pension reserves in the U.S. accounts among households in the survey data. Any procedure is at best problematic. We chose what we thought was the most conservative technique in terms of its effect on the overall distribution of household wealth. Pension wealth, defined as the present value of the expected flow of future pension benefits, was computed for each household. For retirees (r) the procedure is straightforward. Let *PB* be the pension benefit currently being received by the retiree. It is assumed that pension benefits remain fixed in real terms over time

[7]We had originally intended to use the 1986 follow-up survey to the 1983 SCF. In 1986, the same families were re-surveyed for similar information. However, there was some attrition in the sample over the three years, and, consequently, the sampling problems are considerably greater for the 1986 sample. As a result, we decided to use the 1983 data for this study.

[8]See Masson (1988) for more details on the survey structure and design.

[9]Balance sheet totals from the SCF are also roughly consistent with national balance sheet estimates (see Avery, Elliehausen, and Kennickell, 1988, for example). In previous work, the 1983 microdata was aligned to national balance sheet totals in order to estimate the size distribution of household wealth (Wolff, 1987a, and Wolff and Marley, 1989, for example). However, alignment was not performed for this study in order to maintain consistency with 1980 and 1986 French microdata.

[10]Miscellaneous assets in the SCF include money left to friends and relatives, and the cash surrender value of company savings plans, including thirft, profit-sharing, stock options, and ESOPs.

for a particular beneficiary (as was generally true in 1983), then

$$PW_r = \int_0^{LE} PB\, e^{-it}\, dt$$

where LE is the conditional life expectancy and i the (real) discount rate, defined as the 10-year treasury bill rate less the annual rate of increase in the CPI between 1973 and 1983.

For current workers (w), pension coverage and expected pension benefits (EPB) are already provided in the survey data. The expected pension benefit is likely based on the current provisions of the pension plan.[11] We adjusted the expected pension benefit to reflect historical increases in real pension benefits over time, as follows:

$$EPB^* = PB\, e^{g(65-A)}$$

where g is the expected rate of growth of average pension benefits (which we assumed was 2 percent per year), and A is current age. Then, pension wealth is given by,

$$PW_w = \int_0^{LD} EPB^*\, e^{gt}\, e^{-i(t+A^*)}\, dt$$

where $A^* = 65 - A$ is the years to retirement and $LD = LE - 65$.[12] Household pension wealth estimates were then adjusted (scaled down) by the same factor for each household to align with the national balance sheet total for pension reserves ($1,316.4 billion).

IV. Comparative Estimates of the Size Distribution of Household Wealth

On the basis of the 1986 INSEE survey, the overall Gini coefficient for gross household wealth in France is 0.71, the share of the top one percent is 26 percent of total household wealth, and that of the top quintile is 69 percent (see Table 3). In contrast, the Gini coefficient for the concept of gross wealth corresponding most closely to the French concept is 0.77 for the U.S. in 1983. Moreover, the share of the top 1, 5, and 20 percent are considerably higher in the U.S. than France, whereas the share of the second quintile is substantially higher in France. The shares of the bottom three quintiles are quite similar in the two countries. In Table 3 we also show the distribution of net wealth in the U.S. The Gini coefficient for net wealth is 0.81, and the shares of the top 1, 5, and 20 percent are higher than the corresponding shares for gross wealth. Inequality in net wealth is higher than that of gross wealth, because of the inverse correlation of debt with wealth.

[11]Since the survey information is provided directly by respondents, it is difficult to assess what variable the respondent actually had in mind. We chose what we thought to be the most likely interpretation of the question.

[12]See Wolff (1988) for a more extended discussion of the imputation procedures.

TABLE 3

SIZE DISTRIBUTION OF HOUSEHOLD WEALTH IN FRANCE, 1986, AND THE U.S., 1983

	Gini Coeff.	Percent of Total Wealth Held by: Top 1%	Top 5%	Top Quint.	2nd Quint.	3rd Quint.	4th Quint.	Bot. Quint.
A. *France*, 1986[a]								
Gross wealth	0.71	26	43	69	19	9	2	1
B. *U.S.*, 1983[b]								
Gross Wealth	0.77	33	54	78	14	7	2	0
Net Wealth	0.81	36	58	82	12	5	1	0

[a]*Source*: own computations from the 1986 Enquete sur les Actifs Financiers.

[b]*Source*: own computations based on the 1987 Federal Reserve Board tape for the 1983 SCF, which contains imputations for missing values from non-response and corrections of inconsistencies in the data.

Table 4 gives details on individual asset (and liability) holdings. The first column for each country shows the share of each asset (liability) held by the top 5 percent of wealthholders, as ranked by gross wealth. The top five percent of wealthholders owned 49 percent of total assets in the U.S. in 1983 and 34 percent in France in 1980. The top five percent in the U.S. owned correspondingly more of each asset type than in France, though the difference varies among assets. Of particular note is that the top five percent held 83 percent of corporate stock shares in the U.S., and only 48 percent in France. The top group also incurred a much larger share of short-term debt in the U.S. than in France. The top five percent held about a quarter of total S-wealth in the two countries and owned over three-fourths of total K-wealth in the U.S. but only half in France.

The second column shows the percentage of households in each country that owned each asset type. The most important difference is that 63 percent of U.S. households owned their own home, compared to only 46 percent of French households. Ownership rates of financial securities and corporate stock are also substantially higher in the U.S. Ownership rates of other real estate and time deposits are slightly higher in France, and those of unincorporated business and demand deposits slightly greater in the U.S. On the other hand, the proportion of U.S. households holding debt was more than twice that of the French, and more than four times the proportion held short-term debt.

The next column shows the Gini coefficient for each asset (liability) among owners of that asset (liability). Inequality is uniformly greater in the U.S. than in France for each asset type. For corporate stock, the Gini index is 0.90 for the U.S. and only 0.61 for France. Short-term debt is also more unequally distributed in the U.S. than in France, though mortgage debt is more unequal in France. Inequality in the distribution of S-wealth is very similar in the two countries, whereas K-wealth is much more unequal in the U.S. than in France.

Wealth Patterns by Family Characteristic. In the U.S., mean wealth increases sharply with income quintile, whereas the differences are less pronounced in France (Panel A of Table 5). The ratio of mean (gross) wealth between the top and bottom quintiles is 16.1 for the U.S. but only 4.0 for France.

TABLE 4

CONCENTRATION OF HOUSEHOLD WEALTH BY COMPONENT IN FRANCE AND THE U.S.

	France, 1980[a]			U.S., 1983[b]		
	Percent Of Total Value of Item Held by Top 5%	Owners as A Percent Of Total Households	Gini Coeff. (Computed Only for Owners)	Percent Of Total Value of Item Held by Top 5%	Owners as A Percent Of Total Households	Gini Coeff. (Computed Only for Owners)
I. Assets	34	100	0.71	49	100	0.77
1. Owner-occupied housing	16	46	0.32	21	63	0.43
2. Other real estate	46	22	0.56	63	19	0.75
3. Unincorporated business	48	12	0.49	76	14	0.79
4. Currency and demand deposits	25	90	0.65	34	100	0.74
5. Time deposits and savings accounts	28	80	0.70	33	74	0.77
6. Financial securities	40	4	0.49	65	20	0.83
7. Corporate stock shares	48	10	0.61	83	23	0.90
8. Insurance reserves	—	—	—	19	34	0.69
9. Pension reserves	—	—	—	19	36	0.56
II. Liabilities	18	34	0.61	25	70	0.68
1. Mortgage debt	18	25	0.62	13	37	0.46
2. Short-term debt	16	14	0.58	39	64	0.79
III. Net worth	36	100	0.69	51	100	0.75
Addendum						
1. S-wealth[c]	22	99	0.63	26	98	0.59
2. K-wealth[c]	49	31	0.59	77	37	0.95

Note: The first column for each country shows the share of the total value of each asset (liability) held by the top 5 percent of households *as ranked by gross wealth*; the third column shows the Gini coefficient for each asset (liability) among only owners of that asset (liability).

[a]Source: own computations from the 1980 CREP survey.

[b]Source: own computations from the 1987 Federal Reserve Board tape for the 1983 SCF, which contains imputations for missing values from non-response and corrections of inconsistencies in the data.

[c]See footnotes to Table 2 for definition of life-cycle wealth (S-wealth) and capital wealth (K-wealth).

TABLE 5

THE RATIO OF MEAN WEALTH TO THE OVERALL MEAN BY INCOME QUINTILE, AGE CLASS, AND FAMILY COMPOSITION

	France[a] Gross Wealth	U.S.[b] Gross Wealth	U.S.[b] Net Wealth
A. Income Quintile			
Lowest	0.58	0.19	0.19
Second	0.50	0.35	0.35
Third	0.69	0.54	0.53
Fourth	0.90	0.81	0.75
Highest	2.33	3.05	3.22
B. Age Class			
Under 30	0.31	0.19	0.14
30-39	0.76	0.56	0.51
40-49	1.25	1.23	1.32
50-59	1.53	1.31	1.52
60-69	1.25	1.76	2.12
70 & Over	0.88	1.16	1.43
C. Family Composition[c]			
Single male, no children	0.49	0.36	0.34
Single female, no children	0.50	0.60	0.61
Single female with children	0.49	0.26	0.23
Households, no children	0.50	0.59	0.58
Households, 1 child	0.93	1.08	1.08
Households, 2 children	1.30	1.31	1.32
Households, 3 children	1.28	1.08	1.07
Households, 4 children	1.39	0.88	0.89
Households, 5 children	0.82	1.12	1.13
Households, 6 or more children	0.84	0.51	0.49

[a]Panel A is based on own computations from the 1980 CREP Survey; Panels B and C are based on own computations from the 1986 Enquete sur les Actifs Financiers.

[b]*Source*: own computations from the 1987 Federal Reserve Board tape for the 1983 SCF, which contains imputations for missing values from non-response and corrections of inconsistencies in the data.

[c]Children are defined as the number of children ever born to either spouse.

The age-wealth profiles in the two countries both have the characteristic hump-shape predicted by the life-cycle model, but the profile is much flatter in France and peaks for families aged 50-59 in France, compared to 60-69 in the U.S. (Panel B). Moreover, the mean wealth of the oldest age group (70 and over) is lower than the overall mean in France but greater in the U.S. The pattern is even more accentuated for net wealth in the U.S., because younger families hold proportionately higher debt. Net wealth increases from 14 percent of the overall mean for the youngest age group to a factor of 2.1 for the 60-69 age group and then declines to a factor of 1.4 for the oldest.[13]

Results are also shown for family type (Panel C). Single adult families have particularly low wealth holdings in the two countries. However, what is particularly striking is that the average wealth of female-headed households with

[13]It should be noted that though the wealth measure for the U.S. data includes imputed pension reserves, the U.S. age-wealth profile based on a more traditional, marketable wealth concept (excluding pension reserves, but including pension cash surrender value) is very similar.

children is only one-fourth of the overall average in the U.S. but almost half in France. In France, mean wealth generally increases with the number of children ever born up to four children, and their declines. In contrast, in the U.S., mean wealth increases with the number of children ever born up to two children and then generally declines. The results indicate that larger families, particularly those with two to four children, are relatively better off in France, while small families (one or two children) are relatively better off in the U.S.[14]

Table 6 shows portfolio composition by wealth and age class. For France, the share of owner-occupied housing (gross equity) in total assets rises with wealth, as does the share of securities and corporate stock, while liquid assets (currency and deposits) decline in importance. Investment real estate and unincorporated business equity comprise over half the gross wealth of the third and fourth wealth quintiles, but is negligible for the bottom two quintiles and accounts for 18 percent of the assets of the top quintile. The ratio of debt to gross assets is over half for the bottom quintile, varies between 13 and 15 percent for the middle three quintiles, and is only 7 percent for the top quintile.

The U.S. pattern is quite different than the French. For the U.S., the share of owner-occupied housing in gross assets increases from 6 percent for the first wealth quintile to 73 percent for the third, and then falls off sharply to 21 percent for the top quintile. Financial securities and corporate stock are quite small as a proportion of total assets for the bottom four wealth quintiles, but comprise 22 percent of gross wealth for the top quintile. As in France, liquid assets decline in importance as wealth increases. In contrast to the French results, the share of other real estate and unincorporated business equity rises with wealth level, while the debt ratio falls systematically with wealth, from a high of 96 percent for the lowest quintile to 10 percent for the highest.

There is relatively little variation in portfolio composition with age in the French data, except for debt, which declines sharply with age as a percentage of gross household wealth. In contrast, for the U.S., there are systematic differences by age group. Gross equity in owner-occupied housing as a share of total assets falls with age, while the proportion of financial securities and stock shares increases with age. The share of investment real estate and unincorpoated business equity rises with age until the 40–49 age group and then declines. As in France, the debt-to-asset ratio decreases sharply with age.

V. Concluding Remarks

The major finding of this study is that wealth is distributed more unequally in the U.S. than in France. The differences are considerable. When we use the most comparable measure of household wealth for the two countries, the estimated Gini coefficient for France is 0.71 and that for the U.S. is 0.77. The share of the top 1, 5, and 20 percent are considerably higher in the U.S. than France, whereas the share of the second quintile is substantially higher in France. The shares of the bottom three quintiles are quite similar in the two countries. Thus, the difference in the two distributions lies within the top 40 percent and can be traced to its greater skewness among American households.

[14]Results for net wealth are very similar to those for gross wealth.

TABLE 6

PORTFOLIO COMPOSITION BY INCOME, WEALTH, AND AGE CLASS

(Percent of Gross Wealth)

	Gross Equity Owner-Occupied Housing	Other Real Estate and Unincorporated Business	Currency, Demand and Time Deposits	Financial Securities and Corporate Stock	Total Debt
A. *France*, 1980[a]					
1. Overall	46.0	29.0	17.6	7.5	8.9
2. Gross Wealth Quintile					
Lowest	3.8	0.6	96.5	0.0	50.5
Second	4.2	1.9	91.7	2.3	13.1
Third	12.8	55.2	29.4	2.6	14.5
Fourth	20.2	57.8	17.5	4.5	14.8
Highest	57.9	18.8	14.2	9.0	6.5
3. Age Class					
Under 30	35.6	31.8	25.1	7.6	28.1
30-39	42.1	37.2	16.4	4.3	24.7
40-49	48.2	31.7	15.7	4.4	11.0
50-59	48.5	26.9	18.4	6.3	5.4
60-69	47.3	27.6	15.7	9.4	1.3
70 & Over	43.7	22.3	19.7	14.3	1.5
B. *U.S.*, 1983[b]					
1. Overall	31.3	35.0	15.9	17.9	13.6
2. Gross Wealth Quintile					
Lowest	6.2	3.1	81.7	9.1	96.4
Second	53.9	7.5	32.5	6.2	31.8
Third	73.4	7.3	15.7	3.6	29.3
Fourth	62.1	12.9	19.5	5.5	23.9
Highest	21.3	42.3	14.7	21.7	9.6
3. Age Class					
Under 30	49.1	27.2	14.7	9.0	44.5
30-39	47.7	31.3	12.1	8.9	31.6
40-49	33.3	40.4	10.1	16.2	19.3
50-59	30.8	37.0	15.0	17.2	10.0
60-69	23.2	37.8	18.7	20.2	4.9
70 & Over	24.0	23.3	25.0	27.6	1.8

[a]*Source*: own computations from the 1980 CREP Survey.

[b]*Source*: own computations from the 1987 Federal Reserve Board tape for the 1983 SCF, which contains imputations for missing values from non-response and corrections of inconsistencies in the data. For consistency with the French data, pension and life insurance reserves are excluded from the household portfolio in these tabulations.

This result is consistent with the finding that French households have a substantially higher proportion of their wealth in the form of owner-occupied housing, and, more generally, in the form of S-wealth. S-wealth, particularly housing, is more equally distributed within countries than K-wealth (especially corporate stock). This result is also consistent with a finding recently reported by Yotopoulos (1989) of greater income inequality in the U.S. than France. On

the basis of 1972–73 data for the U.S. and 1978–79 data for France, the Gini coefficient for income is 0.39 for the U.S. and 0.31 for France, and the share of the top quintile is 44 percent for the former and 38 percent for the latter.

However, there are two other possible explanations of the higher wealth concentration in the U.S. The first is that there are differences in the degree of underreporting of assets in the two surveys. In other words, if holdings of particular assets by households are not accurately reported, this will bias measured inequality from survey data. We were able to check the possible bias for the U.S. survey data by aligning the 1983 SCF to national balance sheet total [see Wolff (1987a) for details]. This was accomplished by first comparing household balance sheet totals derived from the SCF with national balance sheet data based on the Federal Reserve Board's Flow of Funds. For assets with significant underreporting, alignment was performed by using a proportional adjustment factor for each of the underreported items in the balance sheet (that is, "blowing up" the reported asset values so that the total equalled the national balance sheet figure). Measured inequality falls by all indices, mainly due to the substantial upward adjustment of the value of demand deposits, time deposits, and insurance savings. However, wealth inequality in the U.S. (a Gini coefficient of 0.73) is still greater than in France, though the differences are not as pronounced. However, it should be stressed that a similar adjustment on the French data could have lowered its measured wealth inequality by a similar degree.

A second possibility stems from the fact that the sampling frames differ between the 1983 SCF and the 1986 Enquete sur les Actifs Financiers. In particular, the U.S. data have a special component of high-income households, which does not exist in the French data. It is well known that the better the coverage of high income household, the greater is the measured wealth inequality from such a survey. Thus, part of the reason for the finding of greater wealth inequality in the U.S. than in France may be the greater coverage of wealthy families in the U.S. data. We were able to check for this. When the high-income supplement was excluded from the 1983 SCF (that is, the sample was restricted to the 3,824 families in the representative sample), measured wealth inequality showed a modest decline. The Gini coefficient fell from 0.77 to 0.75, the share of the top 1 percent from 33 to 31 percent, that of the top 5 percent from 58 to 55 percent, and that of the top quintile from 82 to 80 percent. Thus, even when the high-income supplement was excluded, measured wealth inequality was still greater for the U.S. than for France.[15]

There are other noteworthy differences in the distribution of household wealth in two countries. Inequality in the distribution of S-wealth is very similar in the two countries, whereas K-wealth is much more unequal in the U.S. than in France. This corresponds to the fact that the top groups in the U.S. hold a much larger share of total wealth and of individual asset types. In fact, in France,

[15]Another possibility is that the computational technique used to compute the Gini coefficients differed for the two datasets. The U.S. calculation is based on 250 intervals, whereas the French calculation used individual wealth observations (5,602 intervals). Thus, the finer gradation of the French data should, if anything, have biased upward the French Gini coefficient relative to the American.

the wealth of the top wealth quintile is dominated by housing, whereas in the U.S., it is dominated by K-wealth.

Larger families, particularly those with two to four children ever born, are relatively better off in France, while small families (one or two children) are relatively better off in the U.S. The different relation between children and wealth holdings in the two countries may be due to differences in their respective housing markets. In France, where housing costs are high and the housing market is relatively static, families are likely to adjust family size to their available housing. Since housing dominates household wealth in France, we expect that richer families will have more children, and household wealth will be positively correlated with the number of children. In the U.S., on the other hand, where housing costs are relatively low and the housing market is fluid, we expect that house size will be adapted to the number of children. Moreover, since housing is a much smaller component of household wealth, rearing costs are likely to dominate the positive effect of family size on housing wealth. Since rearing costs rise with the number of children, household savings will fall, and we would expect a negative overall relation between wealth and family size in the U.S.

In summary, there appear to be three important differences in wealth accumulation patterns between the two countries. First, the upper income and wealth groups have greater wealth and a higher proportion of their assets in the form of capital assets in the U.S. than in France. Second, whereas the age-wealth profiles in the two countries both have the characteristic hump-shape, wealth differences between age groups in terms of both level and composition are substantially greater in the U.S. than in France. Third, the relation between wealth, marital status, and family size differs greatly in the two countries.

There are two other issues of some note that may affect the comparison of household wealth in the two countries that have not been considered here. The first is the valuation of the public sector, including government assets, the public ownership of firms, and national debt, in the household portfolio. Since public ownership of firms is much more extensive in France, while government debt is considerably greater in the U.S., this factor may affect comparisons of both average wealth and the size distribution of wealth in the two countries. The second is the valuation of both public and private pensions. In France, both public and private pensions are distributed very much like lifetime income and are therefore considerably more equal than (fungible) wealth. In the U.S., this is true for public pensions, but private pensions are distributed more unequally than both lifetime income and fungible wealth. The inclusion of both public and private pension wealth in the household portfolio may thus also affect wealth comparisons between the two countries.

References

Avery, R. B., Elliehausen, G. E., and Kennickell, A. B., Measuring Wealth with Survey Data: An Evaluation of the 1983 Survey of Consumer Finances, *Review of Income and Wealth*, 34 (4), 339-370, 1988.

Board of Governors of the Federal Reserve System, *Financial Assets and Liabilities Year-End*, 1961-84, Washington, D.C., October, 1985.

Buhman, B., Rainwater, L., Schmaus, G., and Smeeding, T. M., Equivalence Scales, Well-Being, Inequality, and Poverty: Sensitivity Estimates Across Ten Countries using the Luxembourg Income Study (LIS) Database, *Review of Income and Wealth*, 34 (2), 115-142, 1988.

Council of Economic Advisers, *Economic Report of the President*, 1987, U.S. Government Printing Office, Washington, D.C., 1987.

Gourieroux, C., Montfort, A., Renault, E. and Trognon, A., Simulated Residuals, *Journal of Econometrics*, 34, 201-252, 1987.

Kessler, D., and Masson, A., Personal Wealth Distribution in France: Cross-Sectional Evidence and Extensions, in Wolff, E. (ed.), *International Comparisons of the Distribution of Household Wealth*, Oxford University Press, Oxford, 1987.

Masson, A., Permanent Income, Age, and the Distribution of Wealth, *Annales d'Economie et de Statistique*, No. 9, Janvier/Mars, 1988.

Modigliani, F. and Brumberg, R., Utility Analysis and the Consumption Function: An Interpretation of Cross-Section Data, in Kurihara, K. (ed.), *Post-Keynesian Economics*, Rutgers University Press, New Brunswick, N. J., 1954.

Ruggles, R. and Ruggles, N., Integrated Economic Accounts for the United States, 1947-1980, *Survey of Current Business*, 62, 1-53, 1982.

Smeeding, T. M., Schmaus, G., and Allegreza, S., An Introduction to LIS—the Luxembourg Income Study, LIS-CEPS Working Paper No. 1, Walferdange, Luxembourg, June, 1985.

U.S. Bureau of the Census, *Statistical Abstract of the United States*: 1988 (108th edition), U.S. Government Printing Office, Washington, D.C., 1987.

Ward, M., *Purchasing Power Parities and Real Expenditures in the OECD*, Organization for Economic Cooperation and Development, Paris, 1985.

Wolff, E. N., The Accumulation of Household Wealth Over the Life-Cycle: A Microdata Analysis, *Review of Income and Wealth*, 27 (1), 75-96, 1981.

———, Estimates of Household Wealth Inequality in the U.S., 1962-1983, *Review of Income and Wealth*, 34 (3), 231-256, 1987(a).

———, The Effects of Pensions and Social Security on the Distribution of Wealth in the U.S., in Wolff, E. (ed.), *International Comparisons of the Distribution of Household Wealth*, Oxford University Press, Oxford, 1987(b).

———, Social Security, Pensions, and the Life Cycle Accumulation of Wealth: Some Empirical Tests, *Annales d'Economie et de Statistique*, No. 9, Janvier/Mars, 199-226, 1988.

———, Methodological Issues in the Estimation of the Size Distribution of Household Wealth, *Journal of Econometrics*, 43, 179-195, 1989.

———, The Distribution of Household Wealth: Methodological Issues, Time Trends, and Cross-Sectional Comparisons, in Osberg, L. (ed.), *Readings in Economic Inequality*, M. E. Sharpe, Armonk, N.Y., 1991.

Wolff, E. N. and Marley, M., Long-Term Trends in U.S. Wealth Inequality: Methodological Issues and Results in Lipsey, R. and Tice, H. (eds.), *The Measurement of Saving, Investment, and Wealth*, Studies of Income and Wealth, Vol. 52, Chicago University Press, Chicago, 1989.

Yotopoulos, P. A., Distributions of Real Income: Within Countries and by World Income Class, *Review of Income and Wealth*, 35 (4), 357-376, 1989.