

INTERGENERATIONAL WEALTH STUDY: EARLY RESULTS AND PROSPECTS

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The data presented in this paper are the first results obtained from an Internal Revenue Service (IRS) effort which examine changes in the concentration of wealth, the intergenerational transfer of wealth, and the history of the estate tax system. U.S. Federal estate tax returns are the principal source of data for this study. By reprocessing old estate tax returns, an enormous body of new wealth information will be preserved and made accessible. In particular, this will allow researchers to learn more about historical wealth accumulation and its transfer from one generation to another. It was for these reasons that the IRS Statistics of Income (SOI) Division has undertaken the Intergenerational Wealth Study.

The present paper provides a status report on that effort and contains some of the early results. First some historical background is presented. Then, with this context in mind, basic return data for those decedents who died from 1916 through 1931 are described. Next this information will be compared to the most recent year for which we have published information--1982. The paper concludes with a discussion of future plans. There also are two brief appendices on some of the limitations and definitions of the data.

HISTORICAL HIGHLIGHTS

For the United States, 1916 through 1931 was a period marked by dramatic changes in the economy, as prosperity gave way to the greatest economic collapse in U.S. history, the Great Depression. This section will highlight some of the major economic influences of that time and their effect on estate tax data.

In 1917, the United States declared war on Germany, resulting in its rapid conversion from a peacetime to a wartime economy and subsequently fostering the expansion of foreign trade and major increases in the money supply. For year of death 1917, there were 8,275 estate tax decedents with a total of \$1.8 billion in gross assets [1]. By 1919, the number of returns had increased by over 34 percent, while gross estate rose by 45 percent. (See Table 1.)

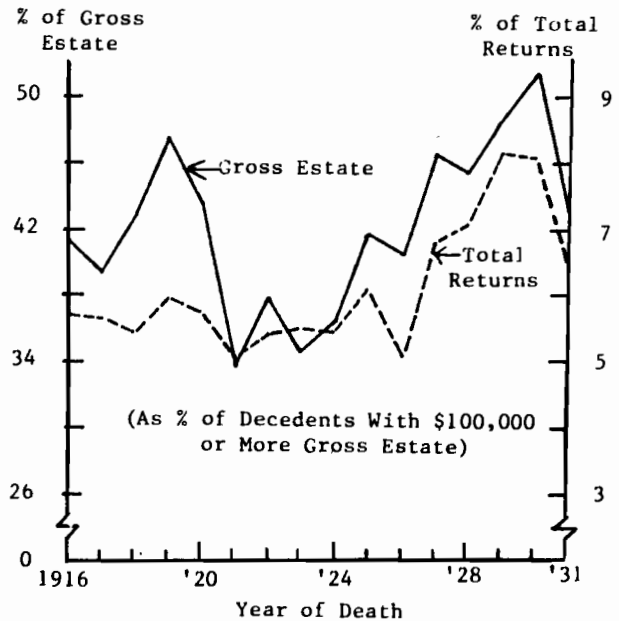
After World War I, the Federal Government drastically curtailed spending, thereby contributing to a severe depression in 1921. During 1921 consumer prices dropped nearly 11 percent, while wholesale prices dropped by more than a third. In addition, Gross National Product and National Income also decreased substantially, by 24 percent and 19 percent, respectively [2]. Estate tax returns for those decedents who died in 1921 also reflect the impact of the depression on the economy; reported gross estate decreased from \$2.7 billion for 1920 decedents to \$2.3 billion for 1921.

For the 1916-31 period, all assets reported on estate tax returns were valued as of the date of death. It was not until 1935 that an alternate valuation method was permitted, whereby total gross estate could be valued up

to one year after the date of death.

With the exception of late 1929, the remainder of the 1920's was a prosperous period. In 1926, the Government increased the estate tax filing requirement (from \$50,000 to \$100,000 of gross estate) to ensure that estate tax returns were required to be filed for only the wealthiest segment of the population. Despite this increase, gross estate continued to escalate, increasing from \$2.6 billion in 1922 to over \$4 billion in 1929, a reflection of the strong economy at that time. The steadily climbing percentage of gross estate held by decedents with \$1 million or more gross estate provides further evidence of the strength of the economy in this period. (See Figure A [3].) By 1929, nearly half of the gross assets on estate returns were held by the 8.6 percent of the decedents who had wealth of \$1 million or more. The United States had entered an era of apparent never-ending prosperity.

Figure A.--Estate Tax Returns with Gross Estate \$1 Million or More: Number of Returns and Gross Estate as a Percent of Totals



This illusion was shattered on October 29, 1929, with the collapse of the stock market and, later, the banking system. The effects of the Depression on the estate tax were first felt mainly in 1930, with reported gross estate decreasing by about 5 percent. By 1931, gross estate had significantly decreased, declining from \$4.1 billion in 1929 to \$2.9 billion in 1931. Thus, it is clear that estate tax returns reflect the economic times in which they were filed. The remainder of the paper will look at some data results for this volatile period in our nation's history.

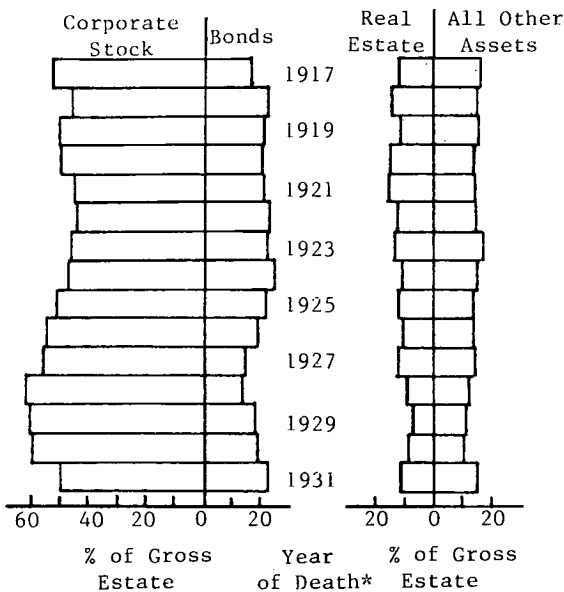
PRELIMINARY RESULTS

Numerous studies by both the Internal Revenue Service and outside researchers have noted that the asset composition of estates varies considerably with the size of the estate [e.g., 4-6]. Included here, for the first time, is confirmation of this phenomenon for the very earliest period of the estate tax. In what follows, attention is confined to estate tax decedents with \$1 million or more (current dollars) in gross assets [7].

Portfolio Composition

For 1917 through 1931, corporate stock was consistently the dominant asset among millionaire estate tax decedents. (See Figure B.) The percentage of gross estate repre-

Figure B.--Estate Tax Returns with Gross Estate \$1 Million or More: Holdings by Type as a Percent of Gross Estate

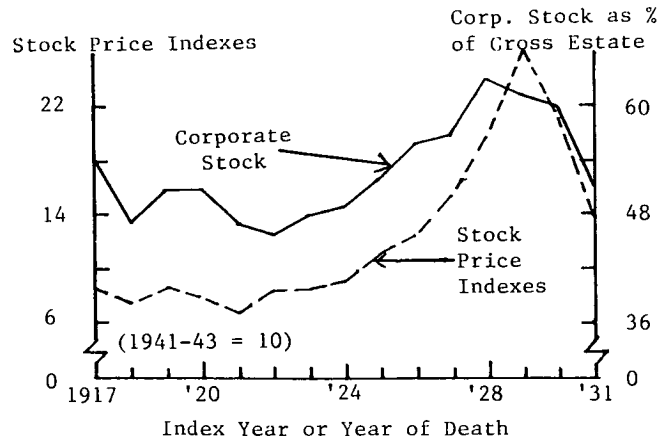


* The estate tax was not instituted until September 1916. The first year is not shown here because of the small number of estate tax decedents with gross estate of \$1 million or more (71 returns).

sented by corporate stock reached a high of 63 percent for 1928 decedents. This may be largely attributable to the 379 percent rise in stock prices generated by soaring corporate profits between 1921 and 1929. (See Figure C.) By 1931, though, with the crash of the stock market, holdings in corporate stock had declined to 51 percent of gross assets for millionaire decedents.

For estate tax millionaires, bonds were the second most favored investment. However, as the portion of assets held as corporate stock increased, bonds generally showed a corresponding decline. This is most notable in 1928, when bonds comprised only 14 percent of all

Figure C.-- Estate Tax Returns with Gross Estate \$1 Million or More: Corporate Stock as a Percent of Total Gross Estate and Stock Price Indexes*



* Source: Stock price indexes were obtained from Standard and Poor's Security Price Index Record, 1986.

assets for millionaire decedents.

The proportion of assets held as real estate varied between 16 percent, for 1921 millionaire decedents, to 9 percent, for 1929 and 1930 decedents. Lent studied the decline in real estate over this period and attributed it to "the collapse in land values after the boom of the early 1920's and, possibly in part, to increased incorporation of such holdings. It may also reflect the breakup of large estates upon which so many early fortunes were founded." [8]

All other assets (including cash, life insurance, and noncorporate business assets) were considerably less important in the portfolios of the millionaire decedents, totaling between 13 and 17 percent of total assets for each year from 1917 through 1931.

Demographic Information

In addition to information about the composition of asset holdings, estate tax returns also provide selected demographic information. A number of important trends in the sex and age of early estate tax decedents are revealed in Table 2.

For years of death 1916 through 1931, male decedents greatly outnumbered female decedents (by about 3 to 1). However, the number of female decedents increased relative to males during this period, from a low of 23 percent in 1919 to 30 percent in 1931.

The average age of estate tax decedents from 1919 (the first year that age was required to be reported) through 1931 was 68 years. (See Figure D.) Female decedents were an average age of 70, 3 years older than the average age of the male decedents. However, there appears to be a trend toward the widening of the male-female gap in the average age of death over the period, from about 2 years to about 4 years. For all decedents, average age declined

Figure D.—Average Age of Estate Tax Decedents by Sex and Year of Death, 1919–1931

Year of death	All estate tax decedents	Male	Female	Age difference male vs female
	(1)	(2)	(3)	(4)
1919	67.0	66.7	68.3	1.6
1920	67.1	66.5	69.2	2.7
1921	67.6	66.9	69.8	2.9
1922	67.7	67.0	69.6	2.6
1923	68.0	67.3	69.8	2.5
1924	67.9	67.2	69.9	2.7
1925	68.1	67.2	70.5	3.3
1926	68.3	67.3	70.8	3.5
1927	68.2	67.2	70.6	3.4
1928	68.2	67.2	70.9	3.7
1929	67.6	66.7	70.0	3.3
1930	67.8	66.6	70.8	4.2
1931	68.6	67.4	71.3	3.9

NOTE: Age was not required to be reported on the return until 1919

by 0.6 in 1929 and then began rising again thereafter [9].

COMPARISONS WITH 1982 DATA

Although the estate tax has undergone many changes since its inception in 1916, its structure has remained essentially intact. The amount of gross estate and the demographic characteristics of that period may, however, be meaningfully compared to those of 1982, because the definition of gross estate has not changed [10].

Because the most recent published estate tax data are from 1982, they will be used in making comparisons. To eliminate the effects of changes in the filing threshold and of inflation, only those decedents with \$1 million or more (1982 dollars) gross estate are included.

The gross estate of these decedents reached a peak of \$25.9 billion in 1929. This compares to \$24 billion in 1982. Average gross estate for millionaires reached its peak of over \$4 million in the 1929-30 period, as compared to \$2.6 million for 1982. (See Table 3.)

The percentage of male millionaire estate tax decedents was about 70 percent in 1931, contrasting with 61 percent in 1982. For all years, men were wealthier than women; indeed, the difference remained fairly constant, at about 14 percent for the 1916-31 period, as well as for 1982.

The average age of estate tax decedents was 68.6 for 1931, as compared to 74.1 for 1982. The difference in age between males and females--3.9 years in 1931--was even more pronounced in 1982. Female decedents averaged 78.1 years of age, as compared to 71.6 for male decedents--a difference of 6.5 years. As seen in Figure E, among males, the percentage of estate tax decedents age 70 or older was

Figure E.—Percentage of Estate Tax Decedents by Age and Sex, Years of Death 1931 and 1982

Age Group	1931		1982	
	Males	Females	Males	Females
	(1)	(2)	(3)	(4)
Under 60 years	24.4%	15.6%	17.5%	8.8%
60-69 years	29.1	22.8	22.1	12.4
70 years or more	46.5	61.6	60.4	78.9

greater in 1982--60.4 percent as compared to 46.5 percent in 1931. This pattern was observable for both sexes. The rise in the average age of estate tax decedents is a reflection of the increases in life expectancy in virtually all socio-economic groups since the 1920's.

PROJECT STATUS AND FUTURE PLANS

Since we began the Intergenerational Wealth Study in 1985, a great deal of work has been accomplished; yet much still remains to be done. This section outlines the work completed thus far and describes our future plans, including processing and research goals.

Immediate Goals

Work on the Intergenerational Wealth Study has progressed rapidly [11]. We have created a machine-readable tape of information for virtually all returns for decedents who died between 1916 and 1935. We are currently involved in capturing the data for returns between 1936 and 1945 and should finish this portion of the Study later this year. The present paper is basically the first attempt to highlight Study results.

For the estates of decedents who died after 1945, we plan to obtain asset information only for those with gross estates in excess of an annually increasing amount (subject to available resources). While we would like to obtain information for all decedents subject to the estate tax since its inception in 1916, the realities of a limited budget require reshaping the database.

Detailed asset information has been obtained for a sample of decedents who died during the periods 1916 to 1920 and 1928 to 1930. Asset information will also be captured for decedents who died in the following years: 1938 to 1940, 1944, 1948 to 1950, 1953, 1958 to 1960, 1968 to 1970, and 1978 to 1980. In most decades, groups of three years have been selected to center around years ending with a 9 (i.e., 1928 to 1930), in order to coincide with the decennial census [11]. Wealth estimates will also be obtained for the single years 1944 and 1953 so that a comparison can be made to wealth estimates produced by Horst Mendershausen in 1944 [4] and Robert Lampman in 1953 [5].

Long-Range Goals

Perhaps the most unusual contribution of the database to wealth research will be the inclusion of identifying information on heirs and bequests [11]. This will permit the linkage of individuals in successive generations related by family and/or economic ties. The information will be used to trace the transfer of wealth from decedents to beneficiaries over several generations. The linked intergenerational database will provide opportunities for studying the role of inheritance in wealth accumulation and the pattern of wealth transfers. Of particular analytical interest will be the information gathered on the role of

trusts in the intergenerational transfer of wealth.

The proposed archive, alone, offers a great deal of information that could be useful to researchers in such disciplines as economics, demography, law, epidemiology, and sociology. Information on ethnic origins, length of last illness, cause of death, and nationality are all reported on the death certificate, which oftentimes accompanies the return.

The estate tax data, to be assembled by the SOI Division, will be archived and, to the extent possible, public-use files will be created. Our plans are to maintain and augment the completed file for our own research, as well as to provide other researchers with files which have been masked or blurred to ensure confidentiality [12]. Additionally, once the estate archive is established, it will be possible to add data from other files to the estate records.

ACKNOWLEDGMENTS

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NOTES AND REFERENCES

- [1] Unless otherwise indicated, all amounts in this article are in current dollars.
- [2] U.S. Bureau of the Census, Historical Statistics of U.S., Colonial Times to 1970, Bicentennial Edition, Washington, DC, 1975, pp. 200, 211, 224.
- [3] In order to provide a more accurate representation, the effect of the changing filing requirement during the

period was eliminated by including only those returns for decedents with gross estates of \$100,000 or more in current dollars.

- [4] Mendershausen, Horst, "The Pattern of Estate Tax Wealth, Vol. III," A Study of Savings in the United States, ed. Raymond W. Goldsmith, Princeton University Press, 1956.
- [5] Lampman, Robert J., The Share of Top Wealthholders in National Wealth, 1922-56, Princeton University Press, 1962.
- [6] Smith, James and Calvert, Staunton, "Estimating the Wealth of Top Wealthholders from Estate Tax Returns," 1965 Proceedings of the American Statistical Association, Business and Economics Statistics Section.
- [7] Due to budget limitations, millionaire decedents are the only group of decedents for which complete asset information is available for every year during the 1916-31 period. (A sample of returns for decedents with gross estate less than \$1 million was taken for years of death 1916 through 1920 and 1928 through 1930.)
- [8] Lampman, 1962, op. cit., p.137.
- [9] The atypically narrow age gap between male and female decedents for 1919 may, in part, reflect the influenza epidemic which killed approximately 500,000 in the United States, most of them below the age of 40.
- [10] Bentz, Mary, "Estate Tax Returns, 1983," Statistics of Income Bulletin, Internal Revenue Service, Fall 1984, pp. 1-13.
- [11] Bentz, Mary, "Intergenerational Wealth Study: Prospects for Data Analysis and Methodological Research," Multi-National Tax Modelling Symposium Proceedings, Revenue Canada Taxation, 1987, pp. v-1 - v-9 (also in this volume).
- [12] Strudler, Michael; Oh, H. Lock and Scheuren, Fritz, "Protection of Taxpayer Confidentiality with respect to the Tax Model," Statistics of Income and Related Administrative Record Research: 1986-1987, Internal Revenue Service, 1987 (also in this volume).

Table 1.—Number of Returns and Gross Estate by Size of Gross Estate and by Year of Death, 1916–31

[Money amounts are in thousands of dollars]

Year of death	Number of returns	Gross estate	Size of gross estate					
			Under \$100,000 ¹		\$100,000 under \$150,000		\$150,000 under \$250,000	
			Number of returns	Gross estate	Number of returns	Gross estate	Number of returns	Gross estate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1916 ¹	2,365	570,714	1,128	78,722	435	52,957	349	66,349
1917	8,275	1,831,044	4,205	291,995	1,539	185,766	1,117	213,885
1918	9,775	2,206,941	5,099	351,237	1,820	221,143	1,241	237,131
1919	11,119	2,657,620	5,851	399,318	2,027	246,777	1,482	282,332
1920	12,483	2,696,684	6,770	460,285	2,244	272,701	1,598	304,385
1921	11,665	2,287,420	6,287	423,273	2,029	246,051	1,545	295,286
1922	12,414	2,636,791	6,560	440,079	2,186	266,057	1,625	309,688
1923	12,890	2,645,542	6,787	458,343	2,238	272,189	1,716	329,606
1924	13,282	2,799,001	6,830	464,453	2,398	290,928	1,772	339,261
1925	13,746	3,194,920	6,902	473,547	2,468	299,786	1,931	371,868
1926	9,024	3,123,881	1,775	124,000	2,420	296,514	2,083	399,354
1927	7,640	3,283,053	446	34,038	2,272	278,507	2,057	393,277
1928	8,272	3,639,779	414	32,770	2,339	288,678	2,258	433,353
1929	8,774	4,078,632	404	29,888	2,438	301,594	2,358	452,193
1930	8,139	3,891,032	412	30,085	2,318	285,741	2,222	426,829
1931	7,122	2,864,471	483	34,733	2,038	250,667	1,986	379,781

Year of death	Size of gross estate—Continued					
	\$250,000 under \$500,000		\$500,000 under \$1,000,000		\$1,000,000 or more	
	Number of returns	Gross estate	Number of returns	Gross estate	Number of returns	Gross estate
(9)	(10)	(11)	(12)	(13)	(14)	
1916 ¹	270	93,315	112	76,769	71	202,601
1917	811	279,391	372	255,689	231	604,318
1918	958	328,701	403	276,919	254	791,810
1919	963	333,309	482	329,876	314	1,066,008
1920	1,077	370,900	466	320,748	328	967,665
1921	1,045	361,046	488	333,348	271	628,416
1922	1,179	408,703	548	379,120	316	833,144
1923	1,231	424,945	583	401,702	335	758,757
1924	1,363	471,372	570	386,421	349	846,568
1925	1,415	487,637	611	423,837	419	1,138,246
1926	1,570	538,770	722	502,873	454	1,262,369
1927	1,627	562,638	719	490,459	519	1,524,135
1928	1,805	630,523	869	603,423	587	1,651,033
1929	1,927	664,686	931	649,575	716	1,980,697
1930	1,740	607,283	793	551,174	654	1,989,920
1931	1,471	508,865	693	472,143	451	1,218,281

¹The estate tax was not instituted until September 9, 1916.

²On February 26, 1926, the estate tax filing requirement was raised from \$50,000 to \$100,000.

Note: Detail may not add to total because of rounding.

Table 2.—Number of Returns and Gross Estate, by Age and Sex of Decedent and Year of Death, 1919–31

[Money amounts are in thousands of dollars]

Age and year of death	Number of returns	Gross estate	Male decedents		Female decedents	
			Number	Gross estate	Number	Gross estate
	(1)	(2)	(3)	(4)	(5)	(6)
All decedents:						
1919	11,119	2,657,620	8,338	2,132,920	2,601	497,829
1920	12,483	2,696,684	9,316	2,132,557	2,995	537,565
1921	11,665	2,287,420	8,681	1,708,985	2,842	557,942
1922	12,414	2,636,791	9,069	2,004,570	3,203	613,190
1923	12,890	2,645,543	9,267	1,944,026	3,496	681,539
1924	13,282	2,799,001	9,604	1,975,356	3,572	809,069
1925	13,746	3,194,920	9,824	2,404,123	3,839	777,498
1926	9,024	3,123,881	6,551	2,360,773	2,457	760,123
1927	7,640	3,283,053	5,451	2,506,600	2,180	775,328
1928	8,272	3,639,779	5,944	2,805,044	2,321	833,499
1929	8,774	4,078,632	6,273	3,056,855	2,495	1,020,788
1930	8,139	3,891,032	5,831	2,933,418	2,303	956,609
1931	7,122	2,864,471	4,992	2,042,292	2,122	820,435
Under 40 years:						
1919	258	61,560	185	43,583	69	17,126
1920	316	54,211	221	38,875	91	15,024
1921	230	31,892	176	21,869	54	10,023
1922	226	36,076	164	24,750	59	10,980
1923	233	49,962	160	38,995	71	10,862
1924	230	54,584	167	36,773	62	17,748
1925	237	38,346	175	26,093	61	12,199
1926	150	34,112	113	25,579	37	8,533
1927	128	44,953	85	28,426	41	16,236
1928	141	46,225	107	37,403	34	8,822
1929	177	88,241	124	69,124	53	19,117
1930	150	49,658	105	36,368	45	13,290
1931	103	31,075	75	24,014	28	7,061
40 to 49 years:						
1919	569	102,371	454	81,828	112	20,150
1920	757	126,552	626	102,466	126	23,549
1921	632	110,930	513	88,354	118	22,308
1922	717	130,266	560	105,808	154	24,301
1923	718	133,605	548	96,426	165	36,297
1924	724	152,246	570	97,113	152	54,973
1925	710	137,346	550	107,244	157	29,623
1926	456	114,364	369	94,240	87	20,124
1927	399	173,056	308	144,214	91	28,842
1928	437	173,601	361	150,081	76	23,520
1929	473	159,085	372	121,856	101	37,229
1930	463	165,356	370	130,088	93	35,268
1931	362	114,827	284	90,064	77	24,483
50 to 54 years:						
1919	580	120,115	461	102,577	113	16,340
1920	762	222,523	635	195,698	122	25,866
1921	691	113,800	576	95,554	112	17,663
1922	753	167,249	609	143,375	142	23,456
1923	789	162,683	609	122,894	174	39,198
1924	807	143,022	627	110,962	176	31,802
1925	810	190,520	647	154,197	158	35,835
1926	534	168,852	410	135,237	123	33,413
1927	443	326,000	352	296,517	91	29,483
1928	474	190,533	378	158,799	95	31,610
1929	505	218,497	400	182,129	105	36,368
1930	436	189,219	348	146,444	88	42,775
1931	405	166,553	323	144,718	82	21,836
55 to 59 years:						
1919	854	180,604	698	156,045	148	23,731
1920	1,013	230,107	833	200,928	171	27,937
1921	936	181,855	756	150,777	167	29,324
1922	1,001	192,387	790	157,319	201	34,190
1923	1,080	237,141	839	196,262	223	36,938
1924	1,204	226,155	955	186,780	241	38,718
1925	1,178	270,380	922	228,036	249	41,587
1926	747	256,806	590	214,486	155	42,080
1927	628	208,711	518	172,792	110	35,919
1928	702	283,004	544	231,277	158	51,726
1929	797	381,979	603	301,822	194	80,157
1930	698	427,845	574	364,222	122	63,272
1931	561	231,277	446	184,437	115	46,840

Table 2.—Number of Returns and Gross Estate, by Age and Sex of Decedent and Year of Death, 1919–31—Continued

(Money amounts are in thousands of dollars)

Age and year of death	Number of returns	Gross estate	Male decedents		Female decedents	
			Number	Gross estate	Number	Gross estate
	(7)	(8)	(9)	(10)	(11)	(12)
60 to 64 years:						
1919	1,140	294,306	891	239,314	232	53,294
1920	1,425	271,629	1,147	229,797	268	40,289
1921	1,351	231,363	1,073	181,647	271	48,908
1922	1,448	305,632	1,132	244,757	305	59,407
1923	1,573	298,854	1,242	237,873	323	60,135
1924	1,633	323,644	1,263	253,471	358	68,185
1925	1,566	370,034	1,206	301,145	353	67,686
1926	989	331,473	784	279,063	205	52,410
1927	891	368,373	697	311,247	194	57,126
1928	989	407,328	771	342,240	217	64,976
1929	1,076	551,100	839	421,515	237	129,586
1930	1,007	440,380	816	371,638	191	68,742
1931	817	267,326	633	213,577	184	53,749
65 to 69 years:						
1919	1,233	466,694	960	417,551	259	47,481
1920	1,488	318,730	1,132	253,122	337	61,526
1921	1,432	315,872	1,119	249,813	297	62,289
1922	1,639	309,107	1,239	248,751	380	58,434
1923	1,780	365,720	1,330	281,882	442	81,490
1924	1,836	394,354	1,356	302,968	464	89,769
1925	1,939	491,210	1,450	399,581	480	89,507
1926	1,378	489,508	1,068	406,998	308	82,183
1927	1,164	447,378	876	339,930	287	107,342
1928	1,135	465,981	840	346,461	295	119,520
1929	1,201	559,055	918	456,566	283	102,488
1930	1,133	560,060	845	464,442	287	95,208
1931	966	369,064	709	283,141	256	85,736
70 to 74 years:						
1919	1,350	301,851	1,019	241,861	316	56,518
1920	1,694	444,056	1,217	364,764	457	75,770
1921	1,663	354,447	1,219	266,507	424	86,264
1922	1,811	372,175	1,297	277,123	482	90,127
1923	1,876	411,452	1,337	315,979	518	91,847
1924	1,863	471,784	1,326	291,243	523	176,863
1925	1,938	433,758	1,355	322,492	573	109,511
1926	1,271	456,793	914	348,155	353	107,922
1927	1,084	449,084	770	334,769	312	114,048
1928	1,196	580,914	843	444,123	352	136,659
1929	1,312	685,815	931	513,850	379	171,713
1930	1,282	617,028	907	474,544	375	142,484
1931	1,105	459,068	749	313,742	356	145,326
75 years or more:						
1919	2,638	656,759	1,895	498,031	694	149,916
1920	3,434	763,236	2,384	563,034	979	190,849
1921	3,235	671,423	2,234	478,885	943	184,301
1922	3,561	895,082	2,410	642,983	1,101	245,524
1923	3,892	826,024	2,558	544,469	1,287	275,476
1924	3,998	858,348	2,665	582,818	1,296	270,486
1925	4,173	1,032,896	2,694	702,508	1,455	326,651
1926	2,755	1,084,326	1,792	726,770	958	356,478
1927	2,285	1,067,433	1,441	743,556	841	323,417
1928	2,522	1,163,641	1,618	826,248	903	336,908
1929	2,481	1,198,826	1,565	828,385	915	370,308
1930	2,315	1,069,020	1,417	659,349	897	409,526
1931	2,231	1,054,091	1,397	686,523	832	366,864
Age not reported:						
1919	2,497	473,362	1,775	352,131	658	113,274
1920	1,594	265,641	1,121	183,873	444	76,755
1921	1,495	275,839	1,015	175,579	456	96,861
1922	1,258	228,817	868	159,706	379	66,772
1923	949	160,102	644	109,247	293	49,297
1924	987	174,865	675	113,226	300	60,525
1925	1,195	230,431	825	162,827	353	64,899
1926	744	187,645	511	130,246	231	56,981
1927	618	198,066	404	135,150	213	62,915
1928	676	328,553	482	268,412	191	59,758
1929	752	236,034	521	161,608	228	73,822
1930	655	372,465	449	286,322	205	86,043
1931	572	171,190	376	102,077	192	68,541

Note: Detail may not add to total because the sex could not be determined for certain decedents.

Table 3.—Decedents With Gross Estate \$1 Million or More: Number of Returns and Gross Estate in 1982 Dollars, by Size of Gross Estate and Year of Death, 1916–31 and 1982

[Money amounts are in thousands of dollars]

Year of death	Gross estate \$1 million or more			Gross estate \$5 million or more		
	Number of returns	Gross estate	Average gross estate	Number of returns	Gross estate	Average gross estate
	(1)	(2)	(3)	(4)	(5)	(6)
1916	1,194	4,734,288	3,965	174	2,688,104	15,449
1917	3,078	11,340,192	3,684	447	6,134,667	13,724
1918	3,243	12,517,778	3,860	447	7,015,593	15,695
1919	3,010	12,356,676	4,105	426	7,280,614	17,090
1920	2,599	9,625,714	3,704	355	5,263,622	14,827
1921	3,218	10,311,007	3,204	393	4,753,393	12,095
1922	3,317	13,594,738	4,099	533	7,044,156	13,216
1923	3,894	12,883,363	3,309	521	6,162,136	11,828
1924	4,164	14,123,348	3,392	532	6,916,153	13,000
1925	4,380	16,183,181	3,695	623	8,788,096	14,106
1926	4,904	18,362,127	3,744	711	10,024,811	14,100
1927	5,096	20,792,808	4,080	780	12,160,870	15,591
1928	5,671	22,928,157	4,043	911	13,222,067	14,514
1929	6,118	25,938,920	4,240	1,093	15,807,346	14,462
1930	5,742	25,831,985	4,499	981	16,232,803	16,547
1931	5,313	20,636,913	3,884	797	11,508,255	14,439
1982 ¹	9,241	24,004,055	2,598	672	8,280,810	12,323

¹ Preliminary figure.

APPENDIX A: DATA SOURCE AND LIMITATIONS

Data for the first phase of the IRS' Intergenerational Wealth Study provided in this article are based on Federal estate tax returns, Forms 706, filed for citizen and resident alien decedents with years of death 1916 through 1931. The returns used in the study had been stored at the Seattle Federal Archives and Record Center. They were filed by year of death, except for a small portion of returns that were misfiled (probably the result of delays in filing). A very small number of returns (the most being .07 percent for 1931) are missing from the tables in this article, but will be included in revised tables published at a later date.

Since nearly all of the returns are included in the statistics, the data are not subject to sampling error. They are, nevertheless, subject to nonsampling error. For example, the asset figures may be understated because they are pre-audit figures abstracted directly from the returns. Generally, asset valuations increase as a result of this process, although no exact measure of that is available for the period 1916-31. However, information on valuation changes made during auditing is available in a study by Harris, based on tabulations of 17,825 estate tax returns audited in 1941. Using these data, Harris showed an upward adjustment of about 10 percent [1].

All the statistical information included here is based on a complete reprocessing of estate

tax returns for 1916 through 1931. These new figures do not exactly match the summary tabulations on estate tax returns published in the Statistics of Income volumes for that period.

The main difference, other than the greater level of asset detail and the size distributions now available, is that the earlier statistics were based on year of filing rather than year of death. Since estate tax returns are not required to be filed until a set number of months after death, and extensions are often granted, the year of death concept more nearly represents the wealth for a particular year.

A number of steps were taken during the reprocessing of these early estate tax returns to ensure that the errors introduced in handling them were kept to a minimum. A quality review of the data abstracting process showed that a high degree of accuracy was achieved [2].

REFERENCES

- [1] Harris, C. Lowell, "Wealth Estimates as Affected by Audit of Estate Tax Returns," National Tax Journal, December 1949, pp. 316-333.
- [2] U.S. Department of the Treasury, Internal Revenue Service, Processing Procedures and Findings: Working Notes on Quality, Statistics of Income Division, September 1986, pp. 67-69.

APPENDIX B: DEFINITIONS

Listed below are descriptions of data items abstracted from the estate tax returns for the IRS' Intergenerational Wealth Study. The definitions of terms used in this article, summarized below, are essentially the same as those included in previous SOI publications relating to estate taxation [1].

- Sex of Decedent.--The classification of the sex of the decedent was determined from the given name or title of the decedent (i.e., Mr., Mrs. or Miss) and any other relevant information on the return. For the earlier years, it was more difficult to determine the decedent's sex. Sex was not discernable for 4.6 percent of the returns in 1917, and decreased to a low of .07 percent in 1930.
- Age of Decedent.--Age of decedent was not included on most returns (17,212 of 20,415) filed prior to 1919. From then on, age reporting was fairly complete. The percentage of returns not reporting age of decedent ranged from a high of 22.5 percent for 1919 to a low of 7.4 percent for 1923.
- Year of Death.--Virtually all returns (over 99.99 percent) reported the decedent's year of death.
- Year of Filing.--During the period covered in this article, estate tax returns were required to be filed within 1 year of the date of death. Based on the number of returns filed each year, estimates have been made by Mendershausen and Lampman on the number of returns for each year of death [2,3]. In [4] the estimates are compared to our results.
- Gross Estate.--For estate tax purposes, gross estate consisted of all property, valued as of the date of death, owned by the decedent, or interests in such property before reduction by debts (except policy loans against insurance) and mortgages, or by administration expenses. Gross estate included such items as real estate, tangible and intangible personal property, certain lifetime gifts made by the decedent, property in which the decedent had a general power of appointment, the decedent's interest in annuities receivable by the surviving beneficiary, the decedent's share in community property, life insurance proceeds (even though payable to beneficiaries other than the estate), dower or curtesy of the surviving spouse (inherited property) and, with certain exceptions, joint estates with right of survivorship and tenancies by the entirety.
- Real Estate.--This asset class included the full value--not equity--of business or personal real property (land, buildings, improvements, and natural resources) owned or under contract to purchase by the decedent, if situated principally in the

United States. Any accrued rent on the real property was required to be included in the total.

- Corporate Stock.--This category included all common, preferred, and debenture stock, listed or unlisted, of domestic and foreign corporations, including stock in closely-held corporations. Also included were certificates of deposit issued for stock, stock scrip, and dividends accrued on all stocks.
- Bonds.--These included State, county, city, municipal, and district Government bonds and bonds of U.S. possessions, even though the interest from such issues might have been tax-exempt for Federal income tax purposes. All issues of the U.S. Government and its instrumentalities were also included under this heading. Finally, included were bonds and notes issued by private domestic corporations and foreign bonds, whether Government or corporate.
- Other Assets.--This residual group was comprised of cash (including currency on hand or in safety deposit boxes), checking accounts, bank deposits and notes, savings and loan accounts, life insurance payable to the estate, and, beginning in 1918, insurance payable to other beneficiaries if in excess of \$40,000. Also included were promissory notes, loans, debts due the decedent, mortgages, trust deeds, and contracts to sell land (including the accrued interest associated with them); the fair market value of unincorporated business assets of the decedent, exclusive of real estate (for example, such items as machinery, accounts receivable, and inventories and other merchandise used in the business); and, finally, personal effects, royalties, patent and mineral rights, automobiles, cemetery lots and the like.

REFERENCE

- [1] The definitions included here are covered in greater detail in earlier IRS publications. See, for example, Gilmour, L. Keith, Statistics of Income--1976, Estate Tax Returns, Internal Revenue Service, Washington, DC, 1979.
- [2] Mendershausen, Horst, "The Pattern of Estate Tax Wealth, Vol. III," A Study of Savings in the United States, ed. Raymond W. Goldsmith, Princeton University Press, 1956.
- [3] Lampman, Robert J., The Share of Top Wealthholders in National Wealth, 1922-56, Princeton University Press, 1962.
- [4] Medve, Kathy, "Estate Tax Returns Revisited, 1916-1931," Statistics of Income Bulletin, Internal Revenue Service, Spring 1987, pp. 59-71. See, especially, Figure H, p. 66.