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The Role of Intergenerational Wealth Transfers in the Distribution of Wealth over the Life Cycle: A Preliminary Analysis

While studies of the distribution of personal nonhuman wealth in the United States have been few,[1] those studies available have consistently shown a high degree of inequality in the distribution of wealth.[2] The most recent complete study of the U.S. wealth distribution, a 1962 Federal Reserve survey,[3] measured a Gini coefficient of inequality in the distribution of personal wealth among consumer units to be .76 (this compares with a Gini coefficient of .43 for the distribution of income in the same year).[4] This study indicated that the top 1/2 of 1 percent of U.S. consumer units owned 22 percent of the personal wealth, the top 2.5 percent wealth-owning consumer units owned 43 percent of the personal wealth, while the net worth of the bottom 10 percent of U.S. consumer units was negative. (See Table 1.)

Together with a concentration of wealth among a relatively few persons among the population as a whole, there is a concentration of

NOTE: The author is a graduate student at the University of Wisconsin-Madison.

TABLE 1   Distribution of Wealth: December 31, 1962

Wealth	Consumer Units (Millions)	Percentage Distribution Consumer Units	Wealth
Total	57.9	100	100
Negative	1.0	2	a
Zero	4.7	8	a
$1 to $999	9.0	16	a
1,000 to 4,999	10.8	19	2
5,000 to 9,999	9.1	16	5
10,000 to 24,999	13.3	23	18
25,000 to 49,999	6.2	11	18
50,000 to 99,999	2.5	4	14
100,000 to 199,999	0.7	1	8
200,000 to 499,999	0.5	1	13
500,000 and over	0.2	a	22

SOURCE: Dorothy S. Projector and Gertrude S. Weiss, *Survey of Financial Characteristics of Consumers,* Board of Governors of the Federal Reserve System, August 1966, Tables A-2, p. 98; A-16, p. 136; A-36, p. 151.
NOTE: Sums of tabulated figures in this section may not equal totals because of rounding.
[a]Less than ½ of 1 percent.

wealth by age group; the consumer units headed by a person 35 or younger in 1962 owned 7 percent of the personal wealth, yet constituted 22 percent of the nation's consumer units. In contrast, those consumer units headed by a person aged 55 or older constituted 35 percent of the nation's population, but owned 56 percent of the personal wealth.[5] Moreover, while there is a concentration of total wealth among the older age cohorts, the degree of wealth ownership inequality *within* a given age cohort as measured by the Gini coefficient is relatively consistent, with Gini coefficients for the age cohorts ranging from .83 to .70.[6]

While age and differing wealth accumulation functions have been employed to explain inter-age cohort wealth differences, the role of inter-generational wealth transfers in wealth distribution inequality over the life cycle has been largely ignored.[7] In this paper, I examine the possible role of inter-generational wealth transfers in explaining the constant inequality of wealth distribution observed for all cohorts during the life cycle.

The importance of inter-generational wealth transfers in wealth inequality can be approached by considering what the distribution of wealth would be like in a hypothetical society in which all inter-generational physical wealth transfers were forbidden. In such a society,

the life-cycle accumulation of wealth of an individual or family unit would start from a very low level early in the life cycle, would accumulate, peak at a period before retirement, and wealth stocks would be consumed during retirement until death (Figure 1). The total wealth of a family unit

FIGURE 1 Accumulation of Wealth for Individuals/Family Units in a Society with No Inter-generational Wealth Transfers

Assets
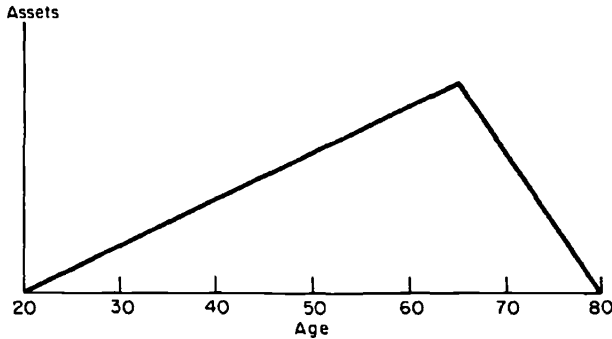
SOURCE: A. B. Atkinson, "The Distribution of Wealth and the Individual Life Cycle," *Oxford Economic Papers* 23 (July 1971): 239–254.

or individual could be reduced to a function of savings, return on savings, and age; in equation form, this wealth relationship may be expressed as

$$[\{[S_1(1+R_1)+S_2](1+R_2)\}+S_N]1+R_N \ldots$$

where

S is the net saving of the unit in a given year;
R is the rate of return on the savings; and
N is the number of years that the unit has been saving.

In such a hypothetical society, while inequalities in the distribution of physical wealth would not disappear, such inequalities that did exist would be due to age, differing savings rates, and differing rates of return on savings, rather than inter-generational wealth transfers.[8]

In such a society, it would be expected that as a given cohort of the population aged, the inequality in the distribution of wealth *within* a given cohort would *increase*, as the impact of age and differing wealth accumulation rates within the cohort took effect. Inequality in the distribution of wealth within a given age cohort would be expected to be greatest in the

older cohorts, where the life-cycle factors would have had the longest time to make an impact, and least in the youngest cohorts. Wealth in such a hypothetical society would be concentrated in the control of the aged, with the younger cohorts of the population having little of the society's total wealth. Finally, the average amount of wealth owned by units within each cohort would increase until retirement, and then be drawn down.[9]

THE U.S. WEALTH DISTRIBUTION

Contemporary America's wealth distribution agrees with the general distribution that would result in such a hypothetical society in that the nation's wealth is concentrated in the hands of the aged,[10] and in that the average asset holdings per consumer unit increase with age.[11]

Where the U.S. differs from the hypothetical society with no inter-generational wealth transfers is in the degree of wealth ownership inequality *within* the various age cohorts; instead of wealth inequality increasing within the cohort as the cohort aged, as in our hypothetical society, the degree of wealth ownership inequality, as measured by the Gini coefficient, remains relatively fixed over the life cycle. What accounts for the high degree of inequality in wealth ownership observed for the younger age cohorts? The issue I wish to explore is: What is the role of inter-generational wealth transfers in explaining the constant high degree of inequality of U.S. wealth ownership observed throughout the life cycle.[12]

METHODS OF U.S. INTER-GENERATIONAL WEALTH TRANSFER

Inter-generational wealth transfer occurs both during the life of both parties in the transfer process, and at the death of one. The three main methods of wealth transfer available are trust funds, transfers by the processes of direct inheritance, and transfers through gifts given while the donor is still alive.

While very little information exists on the importance of inter-generational wealth transfers in the U.S. distribution of wealth, a recent analysis of the information contained in the 1962 Federal Reserve Survey provides some information on trusts and direct inheritances in the form of estates in probate.[13] The analysis breaks down wealth holding by type of asset form, and by age group for individuals; Table 2 shows what

TABLE 2   Importance of Trusts and Estates in Probate as a Percentage of the Total Wealth Owned by the Age Cohort, Individuals, 1962

Age Cohort	Percentage of Total Wealth of the Cohort Held in the Form of Trusts and Estates	Percentage of the Total Personal Wealth in 1962 Owned by the Various Age Cohorts
0–25	8.69	1.6
25–34	21.68	8.7
35–44	5.87	17.9
45–54	1.18	23.2
55–64	1.66	25.1
64+	.56	23.5
		100

SOURCE: Table V-4, Tables V-13 to V-20; in Appendix 5, "The Distribution of Assets Among Individuals of Different Age and Wealth," in Raymond W. Goldsmith, ed., *Institutional Investors and Corporate Stock*, pp. 394–427 (New York: NBER, 1973).

percentage of personal U.S. wealth in 1962 was owned by which age cohort, and what percentage of the total assets of each age cohort was in the form of trust funds and estates in probate.[14]

From Table 2, it appears that inter-generational wealth transfers in the form of trusts and estates in probate are an important asset source for the youngest age cohorts; after the age of 45, trusts and estates in probate are a minor asset source. This table indicates that inter-generational wealth transfers could be a factor in explaining the high degree of wealth-ownership inequality observed in the younger age cohorts.

TRUST FUNDS

Data for 1972 indicated that in that year minimum gross transfers by the inheritance process totaled 38.8 billion dollars, while in 1970 trust funds earned 7.5 billion dollars in income.[15] Total funds held in personal trusts in 1968 were estimated to be 138 billion dollars, and have been growing rapidly.[16] From the individual analysis of the 1962 Federal Reserve Survey data, it appears that the device of trust funds is an important factor in explaining the high degree of inequality in the distribution of wealth observed among the younger age cohorts.

Moreover, trust fund assets are highly concentrated. In 1969, the top 1/2 of 1 percent of U.S. wealth-holding adults owned 85 percent of the value of *all* trust fund assets, and 92 percent of the value of trust funds

were owned by the top 1 percent of the U.S. adult wealth holders.[17] Trust assets appear to be an important asset source for very wealthy young persons.[18]

Table 3 summarizes the 1962 data on trust funds as an asset source for individuals. From this table, it appears that trust funds are a minor asset source for almost all individuals in all age cohorts possessing less than $200,000 in assets. However, for those individuals under the age of 44, and with more than $200,000 in assets, it appears that trust funds are an important asset source.[19]

TABLE 3   Percentage of Assets Held in the Form of Trusts of Individuals in 1962 by Age and Asset Level

Asset Level	Age					
	0–25	25–34	35–44	44–55	55–64	64+
$30,000 to $60,000	3.38	1.8	a	a	1.05	–
60,000 to 100,000	18.14	–	a	a	–	1.0
100,000 to 200,000	–	–	a	–	1.75	a
200,000 to 500,000	30.76	8.78	3.62	.005	.032	2.11
500,000 to 1,000,000	13.71	13.60	81.76	2.09	a	a
1,000,000+	b	93.68	12.07	2.65	5.24	1.48
Percentage of all assets of all age and wealth levels in the form of trusts	5.02	18.2	5.9	.071	1.29	a

SOURCE: Tables V-13 to V-20, pp. 413–428, in Appendix 5, "The Distribution of Assets Among Individuals of Different Age and Wealth," in Raymond W. Goldsmith, ed., *Institutional Investors and Corporate Stock* (New York: NBER, 1973).
[a]Less than 1 percent.
[b]See note 18, end of text.

After age 44, trust fund assets become a relatively insignificant asset form for all wealth levels, with no more than 5.25 percent of the assets of any post age 44 cohort being held in the form of trust funds, with trust assets relative to total assets declining with age for all asset classes.[20]

Further information on the importance of trust funds as an asset source for individual wealth holders with assets of greater than $200,000 is in data on the distribution of assets of all individuals in 1962. While trusts were only 3.3 percent of the assets of all individuals, they constituted 13.7 percent of all assets of those individuals with between $500,000 and $1,000,000 in assets, and 13.5 percent of the assets of millionaires and multimillionaires.[21] Moreover, a special Treasury study[22] of 1957 and

1959 estate tax returns revealed that, taken as a class, between 54 and 56 percent of the millionaires created one or more trusts contingent upon their death, and that trust formation increased steadily with the size of the millionaires' assets; while between 51 and 53 percent of the millionaires with $1,000,000 in assets created trusts, 64 to 77 percent of the millionaires with assets of $10,000,000 or more created trusts.[23]

The amount of the trusts created in the estate as a percentage of the total estate after taxes increased steadily with wealth level, with those millionaires with more than $10,000,000 in assets placing nearly a *third* of their total assets in trust.[24] Furthermore, trust usage increased with the size of the estate among *all* top wealth holders; for estates of between $100,000 and $300,000, only 13–16 percent of the estates created trusts, but 54–56 percent of the millionaires' estates created trusts.[25]

As over 80 percent of the trusts studied in the 1957 and 1959 estate returns expired within one generation,[26] with the majority of the trust fund assets going to members of the decedent's family, trust funds can be viewed as an important method of inter-generational wealth transfer.[27]

DIRECT INHERITANCE

While trusts are an important means of inter-generational wealth transfer, direct inheritance, as measured by annual absolute amounts, is more important. Survey data for the American population as a whole has indicated that inheritance is a minor source of assets; some 80 percent of the U.S. population claims never to have inherited *any* assets, and only 1 percent of the population as a whole admits to having inherited assets of $25,000 or more.[28] Such data have led scholars to discount the role of inheritance in the distribution of wealth and income.[29]

Most inheritances are apparently received late in life;[30] while only 8 percent of spending units have inherited by the age of 25, over 40 percent of the spending units aged 75 or older have inherited.[31] For those few that inherit more than $25,000, the largest increase in inheritance comes in the age cohort 55–64, indicating an inter-generational transmission of wealth late in the life cycle.

While the largest inheritors (those receiving inheritances of $100,000 or more) are concentrated in the older age cohorts (ages 45 to 64),[32] this tells nothing of the relative importance of inheritance to the top wealth-holding classes.

Some information is available from an analysis of the 1962 Federal Reserve Board study of individual asset holdings;[33] the asset class labeled "estates in probate" gives a direct measure of some of the inter-

generational wealth transfers via inheritance occurring in that particular year.[34]

The analysis of the 1962 data revealed that for all individuals under the age of 25, estates in probate made up only 3.6 percent of the total wealth but comprised 56.87 percent of the wealth of individuals with assets of between $30,000 and $60,000, and 15.7 percent of the assets of individuals with assets of between $500,000 and $1,000,000 in this age group.

For all individuals aged 25 to 34, estates in probate totaled 3.56 percent of the total wealth but comprised 59 percent of the wealth of individuals in this age class with assets of between $200,000 and $500,000.

After age 35, estates in probate are 1 percent or less of the asset forms of individuals, except for those aged 44–55 with between $60,000 and $100,000 in assets; estates in probate were 3 percent of the assets of this class.[35]

From this data, it appears that direct inheritance, as measured by the asset form "estates in probate," is of greater importance as an asset source for wealthy individuals under the age of 35 than for other persons.

The apparent conflict between the 1962 survey data and the surveys on inheritance as to when in the life cycle most inheritances are received can be resolved, inasmuch as for the older cohorts, the relative importance of inheritance is less, because these persons usually already have substantial assets; hence, an asset class such as "estates in probate," while large in absolute terms for the older cohorts, will be smaller in relative terms. It is for this reason that inheritance earlier in the life cycle is a relatively more important source of assets for the younger cohorts.

Support for the contention that inheritance is an important source of assets for top wealth holders comes from survey data in Table 4. From this table, it appears that inherited assets are of little importance for the 97.5 percent of the population with assets of less than $100,000. No more than 24 percent of the consumer units in any asset class below $100,000 would admit to *any* inheritance, and 12 percent was the highest number in any asset class below the $100,000 asset level that would admit to having inherited a "substantial" share of their current assets.

However, when one examines the data on inheritance relating to the 2.5 percent of U.S. wealth-holding consumer units that own 43 percent of the nation's wealth, it becomes apparent that inheritance plays an increasingly larger role in explaining the assets of a consumer unit as the wealth of the consumer unit increases.

While 22 percent of the consumer units with assets of $100,000 to $199,000 admit to having inherited a "substantial" portion of their current assets, 34 percent of the top wealth-holding class (assets,

TABLE 4   Inherited Assets in Relation to Total Assets, December 31, 1962
(Percentage distribution of consumer units)

| Group Characteristic | All Units | Inherited Assets | | Portion of Total Assets | | |
		None	Some	Small	Sub-stan-tial	Not Ascer-tained
All units	100	83	16	12	5	a
Size of wealth:						
$ 1–$999	100	95	5	5	a	a
1,000–4,999	100	87	12	9	4	a
5,000–9,999	100	82	18	12	6	a
10,000–24,999	100	77	23	17	6	a
25,000–49,999	100	75	24	16	9	a
50,000–99,999	100	74	24	12	12	2
100,000–199,999	100	46	54	32	22	a
200,000–499,999	100	59	41	28	13	a
500,000 and over	100	39	59	24	34	2
1962 income:						
$ 0–$2,999	100	84	16	10	6	a
3,000–4,999	100	88	12	9	3	a
5,000–7,499	100	84	16	12	4	a
7,500–9,999	100	80	20	14	5	a
10,000–14,999	100	84	16	11	5	a
15,000–24,999	100	73	27	21	6	a
25,000–49,999	100	58	42	34	8	a
50,000–99,999	100	71	26	12	14	3
100,000 and over	100	31	66	9	57	2
Age of head:						
Under 35	100	91	9	8	1	a
35–44	100	87	13	9	3	a
45–54	100	83	17	12	4	a
55–64	100	75	24	17	7	1
65 and over	100	79	21	12	9	a

SOURCE: D. S. Projector and G. S. Weiss, *Survey of Financial Characteristics of Consumers*, Table A-32, p.
148 (Washington, D.C.: Board of Governors of the Federal Reserve System, 1966).
aLess than ½ of 1 percent.

$500,000+) state that a substantial portion of their assets came from inheritance, and 59 percent of this wealth-holding class admits to having inherited at least *some* portion of their current assets.[36]

A crude quantitative measure of the importance of inter-generational wealth transfers in the distribution of wealth at various stages of the life cycle, and by asset level, can be established by combining the 1962 data for individuals of the share of assets held in the form of trusts and the share of assets held in the form of estates in probate. These two asset forms, for all individuals in all age and asset classes, constitute 4.11 percent of all asset value in 1962.[37] However, for the top wealth-holding individuals, inter-generational wealth transfers, only a portion of which are measured by the data on assets in trust and estates in probate, are given below in Table 5 for 1962.

TABLE 5 Percentage of Assets Held in the Form of Trusts and Estates of Individuals in 1962 by Age and Asset Level

Asset Level	Age Cohort					
	0–25	25–34	35–44	44–55	55–64	64+
$30,000 to $59,999	59.87	1.8	—	3.65	1.1	—
60,000 to 99,999	18.0	—	—	—	—	—
100,000 to 199,999	—	—	1.8	—	2.2	—
200,000 to 499,999	30.76	68.23	3.6	—	1.1	2.1
500,000 to 999,999	29.4	13.6	81.92	2.31	2.3	—
1,000,000+	—	93.97[a]	12.0	4.1	6.0	1.4

SOURCE: Tables V-13 to V-20, pp. 413–428 in Appendix 5, "The Distribution of Assets Among Individuals of Different Age and Wealth," in Raymond W. Goldsmith, ed., *Institutional Investors and Corporate Stock* (New York: NBER, 1973).
[a]See note 18, end of text.

From this incomplete evidence, inter-generational wealth transfers in the form of trusts and estates appear to be an important source of assets for those wealth holders with wealth of over $200,000—in particular, for young top wealth holders. The inference from Table 5 is that without the existence of these inter-generational wealth transfers, the distribution of wealth in the cohorts under age 45 would be more equal than it is now.

INTER-VIVOS GIFTS

While most inter-generational wealth transfers apparently still occur at the death of one of the generations involved, the possibility exists for

large-scale undetected inter-generational wealth transfers in the form of gifts to occur while the donor is still alive. Through such lifetime giving, large amounts of wealth can be transferred between generations, enabling wealth inequality to persist and develop anew in younger age cohorts.

Federal law only requires that a gift tax return be filed if the giver of the gift gives one individual more than $3,000 in gifts in any one year; a donor of gifts could give less than $3,000 each to as many persons as he desired and not be required to file a federal gift tax return.[38] These exemptions would enable large-scale gift giving over long periods of time to go undetected by federal data on gifts.

For example, if a man with five children gave each child $3,000 per year over a thirty-year period, each child would have received $90,000 in gifts, and the father would have given away $450,000. Under federal law, his wife could also give away to each child $3,000 per year, per child (a total of $450,000). In addition to the $3,000 annual tax-free gifts each parent could give to their children, each parent could also give away up to a total of $30,000 to a single child or to the children, in various amounts, additional, tax-free, once in the parents' lifetimes.[39] The end result would be a total of $960,000 transferred from parents to children, and *no* federal gift or inheritance taxes paid on this transfer of wealth.

What little and incomplete data on inter-vivos gifts exists indicates that lifetime gift giving is growing, and is potentially a very important method of inter-generational wealth transference.

Data for 1965 indicated that some 3.9 billion dollars in lifetime gifts were large enough to be required to file federal gift tax returns.[40] Between 1963 and 1966, total amount of lifetime gifts subject to the gift-tax filing requirement increased 49.5 percent and the number of returns increased 31.6 percent. If these trends have continued since 1965, the total amount of gifts subject to the federal gift-tax filing requirement would total over eight billion dollars by the early 1970s.[41]

Of the 3.9 billion dollars in gifts in 1965 subject to the federal gift-tax filing requirements, 3.1 billion, or over 75 percent, went to donees other than spouses or charities; hence this 3.1 billion dollar total gives some idea of the minimum amount involved in the annual inter-generational transfer of wealth via lifetime giving.[42]

Moreover, the 1965 gift tax data indicate that large sums were being transferred by means of lifetime gift giving to individuals other than spouses of the donors. In 1965, 536 donors gave gifts of $500,000 or more (238 giving gifts of more than $1,000,000), and 3,684 gave gifts of between $100,000 and $500,000. The possibilities of the giving of such large amounts of wealth resulting in the formation of a new generation of top wealth holders is obvious; several such years of

large-scale gift giving would result in the donee being in the top 1 percent of U.S. wealth holders.[43]

Additional information on the transfer of wealth via lifetime gift giving comes from a special Treasury study matching estate and gift tax returns of individual taxpayers in 1957 and 1959. This study showed that as the size of the gross estate increased, the percentage of decedents in that estate class who had made lifetime gifts rose steadily. While only 10 percent of the owners of estates of $300,000 or less had given away gifts some time during their lifetimes, 52 percent of all millionaires had, and 92 per cent of those millionaires with wealth of over 10 million dollars had some time during their lives made gifts.[44]

Duration of lifetime giving followed the same general pattern as the frequency of lifetime giving; as asset levels increased, the longer the period of time that the decedent had been engaged in lifetime giving.[45]

However, the 1957–59 Treasury study indicated that at least for those two years, lifetime gifts were a small amount relative to the total value of the decedent's estate. Gifts totaled only 2.7 percent of the total value of the estates in the $300,000 asset level, and rose to only 7.5 percent of the estate value in the millionaire class.[46] This indicates that while substantial tax advantages exist in the giving of gifts during life, as compared to leaving the same amount of money at death (gift tax rates are only 75 percent of the comparable federal estate tax rates) inter-vivos gift giving was a relatively infrequent method of wealth transfer as recently as the late 1950s. However, the 1965 federal gift tax data indicate a rapid rise in lifetime giving, such that a considerable amount could be being transferred via lifetime gift giving at the present time.

CONCLUSIONS

This paper began by examining the possible role of inter-generational wealth transfers in explaining the high and persistent degree of inequality in wealth ownership measured over the life cycle. From the data analyzed, it appears that inter-generational wealth transfers in the form of trusts and inheritances are a relatively more important asset source for younger persons (in particular those pre age 45 cohorts) and an especially important asset source for young top wealth holders (wealth holders younger than age 45 with more than $200,000 in assets). It appears that without inter-generational wealth transfers, the assets of young top wealth holders under age 45 might be severely reduced. To the extent that the concentration of assets in the control of young top wealth holders is a source of the high degree of inequality in wealth ownership observed

in the under age 45 cohorts, the elimination or reduction of inter-generational wealth transfers would apparently work to reduce the observed inequality in the distribution of wealth among the young.

The best studies available on the national distribution of wealth in 1860 indicate that in that year, the top 3 percent of U.S. wealth-holding families owned 45 percent of the nation's wealth;[47] in 1962 the top 2.5 percent of U.S. wealth-holding consumer units were estimated to own 43 percent of the U.S. private wealth. The role of inter-generational wealth transfers in explaining the high degree of wealth inequality from genera-tion to generation has been rejected by numerous scholars because of the apparent lack of quantitative importance of these transfers to the assets of the general population. From the data presented in this paper, it appears that inter-generational wealth transfers are not an important asset source for 97.5 percent of the population; however, for the top 2.5 percent of U.S. consumer units, who own 43 percent of the nation's wealth, they appear to be an important asset source, and an important possible reason for the persistent inequality in the distribution of wealth observed from generation to generation.

NOTES

1. Recent studies on the distribution of personal wealth in the United States have included: R. J. Lampman, *The Share of Top Wealthholders in National Wealth: 1922–1956* (Princeton: Princeton University Press, 1962); Staunton K. Calvert and James D. Smith, "Estimating the Wealth of Top Wealthholders from Estates Tax Returns," *Proceedings of the Business and Economics Statistics Section: American Statistical Association Annual Meeting*, September 1964; D. S. Projector and G. S. Weiss, *Survey of Financial Characteristics of Consumers* (Washington, D.C.: Board of Governors of the Federal Reserve System, 1966); James D. Smith and Stephen D. Franklain, "The Concentration of Personal Wealth, 1922–1969," *Papers and Proceedings of the American Economic Association*, May 1974, pp. 162–167.

2. All of the above studies found a concentration of wealth ownership in the control of a small percentage of the population. Lampman found that the top 1 percent of wealth-holding adults owned 26.1 percent of personal wealth in 1953; Smith dis-covered that the top 1 percent of adults owned 26.7 percent in 1958; the Federal Reserve study indicated that the top $\frac{1}{2}$ of 1 percent of U.S. consumer units owned 22 percent of the nation's wealth; and Smith for 1969 has found that the share of the top 1 percent of wealth-holding adults was 23.8 percent.

3. Projector and Weiss, *Survey of Financial Characteristics*. A "consumer unit" in the survey was defined to consist of families and unrelated individuals as defined by the Census. See Projector and Weiss, p. 49.

4. Ibid., p. 30.

5. Ibid., Table 2, p. 12.

6. James Smith, Stephen D. Franklain, Douglas A. Wion, *Financial Concentration in the United States*, Urban Institute Paper #1208-2 (Washington, D.C.: Urban Institute, June 1975), pp. 11–13.

7. The possible role of inter-generational wealth transfers in the lifetime distribution of wealth was first brought to my attention by an article by A. B. Atkinson, "The Distribution of Wealth and the Individual Life Cycle," *Oxford Economic Papers* 23 (July 1971): 239–254.

8. Ibid., pp. 240–242.

9. Assuming that the wealth could be liquidated and then consumed as income in retirement. Ibid., pp. 240–242.

10. Projector and Weiss, *Survey of Financial Characteristics*, Table 2, p. 12.

11. See Martin David, "Increased Taxation with Increased Acceptability—A Discussion of Net Worth Taxation as a Federal Revenue Alternative," Table 6, Figure 1, *Journal of Finance* 28 (May 1973): 490–491.

12. See Smith, Franklain, and Wion, *Financial Concentration in the U.S.*, pp. 11–13.

13. John Bossons, "The Distribution of Assets Among Individuals of Different Age and Wealth," Appendix 5 of *Institutional Investors and Corporate Stock*, Raymond W. Goldsmith, ed. (New York: NBER, 1973).

14. The information asked in the 1962 survey in regard to trust fund ownership was to determine the ownership rights to the *body* of the trust, not to the income alone. If the consumer unit only had rights to the income from the trust fund, it was not to count the trust fund assets among its assets. Projector and Weiss, *Survey of Financial Characteristics*, p. 77. The asset class "estates in probate" was the beneficial interest of the consumer units in estates still in the process of probate, and whose final distribution of assets at the time of the survey had not occurred. Projector and Weiss, p. 66.

15. Data on amounts transferred by the inheritance process from *Statistics of Income 1972: Estate Tax Returns*, U.S. Treasury Department, Internal Revenue Service Publication 764 (Washington, D.C.: U.S. Government Printing Office, 1975), pp. 2, 6. Data on the income of trust funds from *Statistics of Income, 1970: Fiduciary Income Tax Returns*, U.S. Treasury Department, Internal Revenue Service Publication 808 (Washington, D.C.: U.S. Government Printing Office, 1973), p. 4. The income figure for the trusts is the total income reported, before a deduction for deficit, for most of the personal trusts in the United States. Ibid., p. 1.

16. In 1960 personal trust funds administered by banks and trust companies totaled $71.9 billion; in 1965, they totaled $115 billion; by 1968, these trust funds had grown to $138 billion. Table 5-12, p. 244, in Goldsmith, ed., *Institutional Investors and Corporate Stock*.

17. Smith and Franklain, "The Concentration of Personal Wealth, 1922–1969," *Papers and Proceedings of the American Economic Association*, May 1974. Trusts can be divided into two forms: those trusts created while the grantor of the trust was living (inter-vivos trusts) and those trusts created by the terms of the grantor's will after the grantor's death (testamentary trusts). As the 1962 survey asked consumer units to include only those trusts in which the consumer unit had a right to the assets of the trust (see note 14), the type of the trust is not of particular importance.

18. Bossons, "The Distribution of Assets," Table V-14, pp. 415–416. The figure of 93 percent of the assets of millionaires aged 25 to 34 being in trust funds is probably a statistical error. While the 1962 Federal Reserve Board study highly oversampled the top wealth holders for asset information relative to their share of the population as a whole, the data on *young* top wealth holders in the survey sample is small, because of their infrequency. For example, while there were 245 consumer units with wealth of over $500,000 sampled, there were only 8 of these consumer units with wealth of this size with a head under the age of 35 in the sample. The sample data are much more reliable for those consumer units with a head aged 35 or older. Because of this small sample size among *young* top wealth holders (i.e., only 16 units with assets of

$100,000 or more and with a head under the age of 35 were in the sample), the under age 35 data for those with assets of $50,000 or more should be studied with caution. The absence of millionaires in the under age 25 class does not mean that they do not exist; rather, they were not detected in the sample. For data on the actual sample size by various classes, see Table A-35 in Projector and Weiss, *Survey of Financial Characteristics.*

19. My own opinion is that most millionaires under the age of 35 (in particular those under the age of 25) are millionaires by inter-generational wealth transfers. Support for this thesis comes from Bossons, "The Distribution of Assets," Table V-4, p. 403, in which he breaks out the assets of millionaires. From this table, the amount of assets of millionaires (25 billion) is stable in the 25 to 35 age class, and in the 35 to 44 age class, but then more than doubles to over 63 billion in the age 45 to 54 class. This doubling indicates to me the "arrival" of the so called self-made millionaires later in the life cycle.

20. Bossons, "The Distribution of Assets," Tables V-16 to V-19, pp. 419–425.

21. Ibid., Table V-19, pp. 425–426.

22. Reported in C. S. Shoup, *Federal Estate and Gift Taxes* (Washington, D.C.: Brookings Institution, 1966), pp. 137–227.

23. Ibid., Table B-1, p. 155.

24. Ibid.

25. Ibid., p. 156, Table B-2.

26. Data from the 1957 and 1959 Treasury Study of Trusts formed in top wealth holders' estates indicate that 90 percent of the trusts by number formed in estates of $60,000 to $300,000 in size expired after one generation, 90 percent of the trusts by number formed by estates of size $300,000 to $1,000,000 expired within one generation, and 85 percent of the trusts formed in the estates of over $1,000,000 expired within one generation. (Figures found by adding the percentages of those trusts that skipped one generation and those trusts in which the spouse of the trust founder was the sole life tenant. Shoup, *Federal Estate and Gift Taxes*, Table B-6, p. 161.)

27. Data from the 1957 and 1959 estate tax returns studied by the Treasury indicated that 73.4 percent of the trusts established by all estates studied by number were "family trusts" in that the body or corpora will eventually pass outright to the children, grandchildren, or great-grandchildren, or spouse of the settlor. Gerald R. Jantscher, *Trusts and Estate Taxation* (Washington, D.C.: Brookings Institution, 1967), computed from Table V-7, p. 95. By total amount of the trust bequest, some 71 percent of the total amount left in trust bequests by the decedents in 1957 and 1959 were left in the so called "family trusts," the body of trust that would pass eventually to the children, grandchildren, great-grandchildren of the settler. Jantscher, computed from data in V-19, p. 126.

28. See Table A-32, p. 148 in Projector and Weiss, *Survey of Financial Characteristics*; Table 7-4, p. 89 in J. M. Morgan, M. H. David, W. J. Cohen, and H. E. Brazer, *Income and Welfare in the United States* (New York: Macmillan, 1962); Table 15, p. 64, in John B. Lansing and John Sonquist, "A Cohort Analysis of Changes in the Distribution of Wealth," in Lee Soltow, ed., *Six Papers on the Size Distribution of Wealth and Income* (New York: NBER, 1969).

29. Herman Miller of the U.S. Census Bureau in his book, *Rich Man, Poor Man* (New York: Thomas Crowell, 1971) discounts the role of inheritance in the distribution of wealth, pp. 156–158. Christopher Jencks in his study of the relationship between education and income concluded that inheritance was of little importance in the overall distribution of income. Christopher Jencks and Associates, *Inequality: A Reassessment of the Effect of Family and Schooling in America* (New York: Basic Books, Inc., 1972), pp. 212–214.

30. Josiah Wedgwood in his classic study of inheritance (*The Economics of Inheritance* [London: George Routledge and Sons, 1929]) determined from a search of probate records that 90 percent of the estates he studied were inherited before the age of 55, and 66 percent between the ages of 35 and 54 (pp. 174–175). Survey data on inheritance indicate that the majority of inheritances occur between the ages of 35 and 65. Given the present trend to longer life-spans of the parents due to medical advances, it seems possible that the time of inheritance in the life cycle today is later that when Wedgwood did his study. Assume that the parent has children between the ages of 25 and 35, and that he lives to age 65 to 70. That would make his children ages 35 to 45 when they receive their inheritances. Much inheritance appears to be an occurrence of the later stage of the life cycle.

31. Lansing and Sonquist, "A Cohort Analysis of Changes," Table 16, p. 65.

32. Ibid., Table 15, p. 64.

33. Bossons, "The Distribution of Assets," Tables V-13 to V-19, pp. 413–425.

34. "Estates in probate" can be viewed as inheritance in the process of being distributed to the heirs; see also note 14. The estates may be in the process of probate for several years or a longer period of time.

35. Bossons, "The Distribution of Assets," Tables V-13 to V-19, pp. 413–425.

36. See Table 4.

37. Bossons, "The Distribution of Assets," Table V-19, p. 425.

38. *Statistics of Income, 1965: Fiduciary, Gift and Estate Tax Returns*, U.S. Treasury Department, Internal Revenue Service (Washington, D.C.: U.S. Government Printing Office, 1967), p. 41. The assumption is that these are gifts of present interest, not future interest.

39. The $30,000 figure is the federal gift-tax individual lifetime donor exclusion. The $30,000 amount may be given to a single person, free of gift taxes, or be split among several persons, free of gift taxes, as long as the total amount of the gifts given under this exclusion total $30,000 or less per donor.

40. Data on gifts for 1965 are for only those gifts not made either to spouses or to charities; data from *Statistics of Income: 1965 Fiduciary, Gift and Estate Tax Returns*, Tables 7 and 8, pp. 53–54.

41. The $8 billion figure assumes that lifetime gifts in absolute amounts continue to grow at the 15 percent annual rate of growth set between 1963 and 1966.

42. Some of the gifts could be intragenerational wealth transfers (i.e., brother to sister of the same age) as well as inter-generational wealth transfers (i.e., parents to children).

43. The top 1 percent of U.S. adults in net worth in 1969 had a net worth of at least $200,000. Net gifts of $100,000 for two years would be sufficient to place the donee in the top 1 percent of U.S. adult wealth holders. Data on minimum net worth from Smith, "The Distribution of Financial Assets," Table 1.

44. Shoup, *Federal Estate and Gift Taxes*, Table C-3, p. 182.

45. Ibid., Table C-10, p. 192.

46. Ibid., Table C-3, p. 182.

47. Robert E. Gallman, "Trends in the Size Distribution of Wealth in the Nineteenth Century: Some Speculations," in Soltow, ed., *Six Papers on the Size Distribution of Wealth and Income*.

9, 10, 11 ▌ COMMENTS

W. Lee Hansen
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I want to commend the Conference Program Committee for adding this Student Papers Session. The importance of stimulating and recognizing graduate student research through a session like this cannot be overemphasized. Equally important, students are given a firsthand look at how professional economists interact and test new ideas through their research and participation in conferences such as this. I hope that the Session can become a regular part of future Conference programs.

I am honored to have been selected to discuss the three student papers. My intention is to discuss them one by one, focusing largely on how the papers might be extended through future work by the authors.

GREG DUNCAN

Greg Duncan comes at the subject of income distribution in a way different from the earlier papers at this Conference.[1] His concern lies in identifying and measuring the nonpecuniary elements of compensation and, specifically, in determining how these nonpecuniary rewards might affect estimates of labor market discrimination against females and blacks. All too often we pay only lip service to the nonmonetary elements of work compensation, focusing instead on the readily measured and available money earnings variable. Yet as readers of Adam Smith know, these elements must be an integral part of any analysis of labor markets and of income distribution. In the past, economists have been thwarted by an absence of data. But fortunately, the University of Michigan Survey Research Center has taken on the task of gathering much data of use to economists, including, recently, information not previously available for individuals on the nonpecuniary elements of compensation. Thus, we have an opportunity to learn whether the nonmoney components of wages are distributed in such a way as to shift the relative "full income" position of different race and sex groups.

The finding that nonpecuniary factors are not in the aggregate distributed in the same way as income comes as no real surprise, given the way in which they are measured. Nor is it too surprising that these factors differ by occupations, so that, say, for women, the advantages derived from certain benefits associated with the pattern of occupational attachment are offset because, within these

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NOTE: Student papers consist of the contributions of Greg Duncan, William R. Johnson, and Thomas Osman.

occupations, women receive fewer of these benefits than do men of comparable backgrounds. And finally, the fact that the somewhat more favorable flow of these various benefits accrues to females and blacks is still not sufficient to upset the notion that these two groups suffer from substantial labor market discrimination.

To nail down these conclusions, we really need to know more about a number of things which are not touched upon in the paper. For one thing, it is possible that the greater part-time attachment of women to the labor force affects these results. It seems possible that for regular full-time workers the differences in these assorted benefits would be smaller than reported here; part-time workers, whether male or female, probably confront different compensation packages.

The results obtained may also be affected because no money values have been placed on the various nonpecuniary benefits. For fringe benefits this could be done rather easily; instead of simply adding up the number of a rather mixed bag of benefits received by individuals, it should be possible to assign dollar values on these benefits. Even though the resulting estimates might be rough, they would permit an approximation to "full" income. By then entering full income into the initial regression as the dependent variable, we would be in a position to compare these new results with those in Duncan's Table 6, and thus be better able to assess the extent to which our more usual estimates of the effects of labor market discrimination are biased. However, because the value of most of the fringe benefits will be proportional to money income, we would not expect any dramatic shifts to result except inasmuch as different occupations have different patterns of fringe benefits.

For other items, such as "control over overtime hours" and "job autonomy," one might simply assign arbitrary money values which would then further expand the measure of full income. These items would probably have to be valued relative to average money income in an occupation, given the fact that all occupations are being compared in the analysis. Because there might be disagreement about the value of these items, it would be well to experiment with a range of values and thereby determine the sensitivity of the results. Finally, the employment stability aspect might be treated along the lines suggested by Johnson in his paper.

To summarize, this paper is a highly useful first effort to expand the scope of that all-important income variable to include both pecuniary and nonpecuniary rewards. This should help us add to our knowledge of the dimensions of labor market discrimination and permit us to learn more about the distribution of full income.[2]

WILLIAM R. JOHNSON

William R. Johnson's paper is an impressive piece of work, attempting as it does to explore the systematic forces making for long-run differences in earnings

levels among occupational groups. In addition to a careful review of what we know about the subject of uncertainty, he proposes a theoretical model of earnings, estimates it, and comments on the results. Age groups are used to get at the lifetime aspects of the problem, and some of the variance is effectively controlled by stratifying for level of educational attainment. The two major results seem plausible.

Uncertainty, as reflected by the dispersion variable, is compensated for by higher average earnings. However, this is not the case when the risk of unemployment is greater. Whether the effect of the risk of unemployment is already captured in earnings is not fully clear, however. Perhaps the use of wage-rate data, hourly or weekly earnings, would permit a more appropriate test for this latter hypothesis. In any case, the results in Table 2 were a bit perplexing. While I would expect a one standard deviation change in the dispersion variable to have a larger absolute effect on mean earnings for each successively higher educational group, and likewise for the prime age groups (35–54 versus 25–34 and 55–64), it is not clear whether the relative effects move in the same direction, as I would expect they should; listing the mean earnings for each occupational group would easily resolve this point.

The second set of results pertaining to the association between risk return and mobility is also consistent with the author's hypothesis. The results are weaker, however, and one might also question them on the grounds that a different set of occupational groups is used; hence, the empirical base for the two tests is not comparable. It would be useful to redo the tests using similar data, to the extent that this is possible.

Several additional comments might be made. One concerns the stability of the risk-return relationship. Would one obtain the same results for 1960 or for some other year? Only by knowing this can we consider accepting the hypothesis, for the model posits a world in which an individual's future is largely determined by his initial level of earnings, given the stability of the forces underlying what is called uncertainty. (I cannot help but comment here on the Ruggles and Ruggles finding that the cohort of new workers entering the labor market in the early 1930s seemed to have suffered a permanent impairment of its earnings, relative to those individuals in the immediately preceding and succeeding cohorts. I have noticed a similar phenomenon for engineers who obtained their degrees in the early 1930s.) Another comment concerns the stability of the relationship when longitudinal data are examined. It would be useful to test the model with such data, e.g., the Parnes data or the Michigan Longitudinal Panel. Still another comment concerns the risk-return and occupational immobility. Here, the direction of causality is not clear. Should we not expect the proportion of individuals remaining in an occupation in some subsequent period to be positively related to the risk-return situation in some initial given year? This would reflect the fact that those already there prefer to remain in the occupation to take advantage of their bounty. But what this implies about the proportion of new entrants coming into an occupation is much less clear. Would we expect the proportion to be larger or smaller?

A minor point. On the problem of omitted variables, Johnson suggests an interesting approach in getting at the ability factor. But rather than relying for

empirical support on an old study from 1945, a study whose results can be questioned because the preservice occupations may have borne little or no relationship to postservice occupations, it might be better to build on more recent data such as the Thorndike-Hagen sample or the National Opinion Research Center (NORC) sample.

Finally, more thought should be given to the use of the term uncertainty to describe the various forces leading to persistent earnings differences. As used here, the term embraces far too much, taking into account those factors which reflect permanent uncertainty. In this sense it is like that old term "technical change" which covers a multitude of things we know little about. Let us hope that we can do a better job of isolating these factors now grouped under uncertainty as longitudinal data become available to us. Maybe there is uncertainty arising from not knowing on what earnings track a person will find himself, but once the choice of a job is made, that uncertainty is forever dispelled.

TOM OSMAN

Tom Osman has done an interesting job in his effort to throw more light on the relative constancy of wealth inequality across age cohorts. Both the Lansing-Sonquist study for the United States and the Atkinson Study for the United Kingdom indicate that wealth inequality varies little across age cohorts; the Survey of Financial Characteristics of Consumers (SFCC)–Projector data indicate the same thing. Osman finds this puzzling and properly so, for any reasonable life-cycle model of earnings and savings would appear to predict a widening of wealth inequality as cohorts age. Although others have suggested that inter-generational wealth transfers are responsible for the higher than expected extent of wealth inequality for the younger age cohorts, Osman attempts to document this suspicion by drawing upon a variety of secondary data which he weaves together in a highly effective way. He demonstrates with the scanty data available that recorded large-scale inter-generational transfers, via trust, inheritance, and inter-vivos gifts are inversely related to the age of the cohort, i.e., they flow most heavily to the younger cohorts, and that, not unexpectedly, larger proportions of total assets of younger cohorts are held by those with already high levels of assets, i.e., transfer wealth is most highly concentrated for the younger cohorts. Osman's conclusions that these transfers are "important" cannot be disputed. On the other hand, there may be more to the story, as I should like to suggest.

I calculated Gini coefficients for his age cohort data—from the Projector data as tabulated by Bossons—and find that total asset Gini coefficients were .686 for the 25–34 cohort, .703 for the 35–44 cohort, and .716 for the 45–54 cohort. This is a slight but virtually insignificant upward drift, which differs from Lansing and Sonquist, in whose work no trend was apparent. If the Gini coefficients are recalculated after excluding wealth in trusts, they fall to .620, .696, and .713, respectively, as would be expected. Of course, the trusts are recorded

trusts—others may have already expired and thus escape detection. Hence, the true Gini coefficients would be lowered below the recalculated figures I have just provided. By exactly how much they would fall cannot be known with certainty in the absence of a new data source or some ingenious effort to purge the asset data of previous transfers via trusts. Perhaps this could be done in at least some crude way, although the sample size will severely limit what can be done. On another front, it might be possible to look at the asset distribution for those who have received inheritances. Unfortunately, we shall probably not be satisfied with whatever we find because of the slender data base at our disposal.

Earlier, I mentioned that there might be more to the story. Assume that a life-cycle earnings-savings model would lead to a widening of wealth inequality for successive age cohorts. But now incorporate inter-generational wealth transfers into the model, such that inequality for younger age cohorts increases substantially, along the lines described by Osman. Since there seems to be no reason to assume that the younger cohorts will be less able than other cohorts to expand their augmented wealth over time, the effect of inter-generational transfers will simply be to raise the intercept of the Gini slope across cohorts. Thus, inequality would still be expected to increase with age.

The data, however, do not indicate this to be the case. Moreover, the magazine *Fortune* tells us about the continuous emergence of new self-made millionaires. What this suggests, then, is the old familiar story, of considerable "churning" in the wealth distribution over the life cycle. Some units move up into the top of the wealth distribution and others move down, but on balance there appears to be more downward than upward movement, notwithstanding our expectations.

Where does this leave us? Clearly we need to know more about the inter-generational transfer of material and financial wealth, not to mention human wealth. The extent to which young people vault to the top must be established. But we shall gain illumination only as we are able to trace out the extent of shifting individual fortunes over the life cycle. And if it is true that most fortunes are depleted almost as fast as they are generated, that is, in two or three generations, as my comments suggest may be the case, then the implications for analysis of economic power relationships may be somewhat different from what is often suggested by analysts of the power structure.

In any case, this is a fascinating subject. I commend Tom Osman for arousing my curiosity with his extremely useful paper.

NOTES

1. It should be mentioned that this paper reflects the author's early work on what is now a completed dissertation. This dissertation was awarded the John Parker Prize here at the University of Michigan. Many of the suggestions I make have already been incorporated into the completed dissertation, a copy of which can be obtained through University Microfilms.
2. As was pointed out by several participants in the Conference, nobody knows exactly what labor market discrimination is and to what extent the remaining differences in income (after correction for known factors making for differences) between males and females and whites and blacks reflect discrimination.