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ABSTRACT

A study was done of the savings patterns and financial resources of households receiving teacher's retirement insurance benefits. For the survey a mail questionnaire was sent in fall 1988 to a statistically drawn sample of Teachers Insurance and Annuity Association-College Retirement Equities Fund annuitants. Over 900 questionnaires were completed and returned (65 percent response rate). Among the findings were: (1) over one third of respondents reported a net worth of $300,000 or more and about one third $100,000 to 299,999; (2) 31 percent of women reported net worth under $100,000, versus 18 percent of men; (3) liquid assets were the most frequently owned asset type followed by home ownership; (4) over 90 percent of homes were mortgage free; (5) 27 percent had received "substantial" wealth transfers through inheritance; (6) 10 percent reported receiving substantial gifts from relatives averaging $51,000 and 30 percent reported providing substantial gifts to children, partners, or other relatives on average of $37,000; (7) 63 percent of respondents had saved money in the past 5 years; (8) key motivation for saving was concern for nursing home and health related costs; (9) 39 percent followed a "life-cycle" savings approach by saving before retirement and using up savings during retirement but 45 percent more closely fit the intergenerational transfer pattern and continued to save as much in retirement as before. (JB)

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## Survey of TIAA-CREF Annuitant Households—Accumulated Net Worth and Current Savings Patterns

### In This Issue:



### Introduction

This issue of *Research Dialogues* presents information on the savings patterns and financial resources of a sample of households in which TIAA-CREF annuity benefits are being received. The survey was conducted by the Survey Research Center, Institute for Social Research, The University of Michigan, and was financed by a Sloan Foundation grant in support of studies of life-cycle savings behavior.

The survey offers insight into the financial situation of retirees, information of use both to pension plan administrators and to employees planning their retirement. It also tests theories of savings behavior and provides information on motives and patterns of saving, the ability to sustain preretirement standards of living, and changes in financial position in retirement.

### The Survey Group

For the survey, a mail questionnaire was sent in the fall of 1988 to a statistically drawn sample of TIAA-CREF annuitants. Over 900 questionnaires were completed and returned. The response rate, high for a survey of this type, was 65%.[1] The Survey Research Center concluded, "The TIAA-CREF data look to be greatly superior to other available data bases in terms of conventional measures of quality."[2]

### Net Worth

In considering retirement finances, there is concern not only about the amounts of the pension and Social Security benefits but also about the financial resources available to help maintain a standard of living and meet new needs. One measure of the resources available for these purposes is net worth—the value of a household's total assets less total debt. Table 1 shows the distribution of reported net worth for all survey respondents by sex, age, and education groupings.

Table 1 shows that just over a third of respondents reported a net worth of $300,000 or more, and about the same proportion, $100,000 to $299,999. Fewer than a fourth reported a net worth less than $100,000.

It is evident that at the low and high ends of the wealth spectrum, considerable differences exist between women and men. Thirty-one percent of women respondents reported a net worth under $100,000, versus 18% of men. At the top end, women were far fewer than men—8% of women reported a net worth of at least $600,000, compared with 20% for men. The scarcity of women at the upper end of the wealth spectrum is related to marital status—55% of the women in the survey, compared with 14% of the men, reported that they were not married (being either widowed, divorced, separated, or single). In addition, divorced and separated respondents of both sexes had difficulty accumulating assets of high value—more than half reported a net worth of less than $100,000.

Contrary to expectation, older annuitants (those age 75 and over) were not disproportionately represented in low net worth categories. Thirty-nine percent of the TIAA-CREF annuitants who were age 75 or older reported a net worth of $300,000 or more, a higher proportion than for those age 65 to 74 (36%) and for those under age 65 (31%).

The relation of attained educational level to net worth is about what one might expect. As respondents' educational level increases, so does the percentage reporting a net worth of $300,000 and above. However, 14% of the most advanced degree-holders were at the low end of the wealth spectrum. While education definitely helps, it

## Table 1
Distribution of TIAA-CREF Annuitant Households, by Net Worth and by Sex, Age, and Education

| Net Worth | Total | Sex | | Age | | | Education[a] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Male | Female | Less than 65 | 65-74 | 75 and over | High School | College Degree | Master's Degree | Ph.D. Degree |
| | n=925 | n=544 | n=381 | n=195 | n=556 | n=174 | n=141 | n=151 | n=237 | n=278 |
| Less than $100,000 | 23% | 18% | 31% | 30% | 22% | 21% | 55% | 21% | 16% | 14% |
| $100,000 - $299,999 | 37 | 36 | 37 | 33 | 38 | 36 | 34 | 32 | 42 | 32 |
| $300,000 - $599,999 | 21 | 23 | 19 | 20 | 20 | 25 | 7 | 26 | 24 | 25 |
| $600,000 and over | 15 | 20 | 8 | 11 | 16 | 14 | 1 | 18 | 14 | 25 |
| DK NA[b] | 4 | 3 | 5 | 6 | 4 | 4 | 3 | 3 | 4 | 4 |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

[a] Data are not shown for education level of "some college training." "High school" also includes persons not completing high school and those taking vocational training after high school graduation. "College degree" includes those with four-year college degrees and possibly some graduate education short of an advanced degree. "Ph.D. degree" also includes persons with M.D., law, and equivalent degrees.

[b] Don't know or no answer

## Table 2
Net Worth of U.S. Households
Percent of U.S. Households, by Net Worth and by Age, 1988

| Net Worth | Age | | |
|---|---|---|---|
| | 55-64 | 65-74 | 75 and over |
| Less than $100,000 | 57% | 56% | 65% |
| $100,000 - $249,999 | 27 | 28 | 24 |
| $250,000 - $499,999 | 10 | 11 | 8 |
| $500,000 or more | 6 | 5 | 3 |
| Total | 100% | 100% | 100% |

Source: U.S. Bureau of the Census, "Household Wealth and Asset Ownership, 1988," *Current Population Reports*, ser. P-70, no. 22 (Washington, D.C.: U.S. Government Printing Office, December 1990), 19.

## Table 3
Types of Assets Reported by TIAA-CREF Annuitant Households
Percent Reporting the Asset and Mean and Median Values

| Type of Asset | Percent Reporting | Mean Value | Median Value |
|---|---|---|---|
| Liquid assets (cash, bank accounts, CDs, money market funds, Treasury bills, etc.) | 91 | $ 62,300 | $ 37,000 |
| Primary residence | 83 | 148,700 | 101,900 |
| Common stock investments | 50 | 103,300 | 40,100 |
| Equity in life insurance (cash surrender value) | 42 | 16,900 | 10,000 |
| IRAs, Keoghs | 38 | 26,200 | 15,800 |
| Corporate or government bonds | 25 | 80,900 | 32,100 |
| Real estate other than residence | 23 | 91,900 | 38,500 |
| Vacation home | 16 | 108,800 | 60,600 |
| Retirement plan balances not yet annuitized | 16 | 86,900 | 43,600 |
| Trust account set up by respondent | 9 | 140,300 | 85,000 |
| Other vested contributory retirement accounts | 8 | 66,300 | 29,200 |
| Business or farm or financial interest therein | 7 | 134,800 | 50,100 |
| Trust account with respondent as beneficiary | 7 | 299,100 | 150,000 |
| Total net worth, all respondents | | $356,000 | $209,600 |

provides no guarantee of high net worth.

Census Bureau data enable a comparison of the net worth of the TIAA-CREF sample with a sample of the general population of U.S. households for the same year, 1988. As shown in Table 2, the Census Bureau's classification categories are slightly different. But clearly, there are significant differences between the two populations. For example, for the national household data, roughly 60% have a net worth of less than $100,000, versus 23% for the TIAA-CREF group. This pattern is consistent across the various age groups. Among households in the national sample whose heads were age 65 to 74, 44% had a net worth of $100,000 or more, compared with 74% of the TIAA-CREF households. For U.S. households with heads age 75 and over, 35% reported a net worth of $100,000 or more, while the TIAA-CREF households have twice that percentage.

### Asset Profile

The survey sought information on the types of assets represented by net worth, including real estate, financial assets, pensions and insurance, family-owned farms or businesses, and durable assets, such as automobiles, boats, and works of art. Table 3 shows the major types of assets reported, arranged in descending order of the percentages of respondents reporting a particular asset type. Also indicated are the mean and median values of each asset type.

Liquid assets (cash, bank accounts, etc.) were the most frequently owned asset type, reported by 91% of respondents. The second most frequently owned asset was a home or condo, reported by 83%; over 90% of the homes were mortgage-free. The dropoff is steep after this, both in the proportion owning the asset and in its median value. Common stock investments, owned directly or through mutual funds, were reported by half of the respondents. Life insurance ownership (cash surrender values) was reported by 42%, followed by Individual Retirement Accounts (IRAs) and Keogh plans, 38%. Corporate or government bonds were owned by 25% of respondents, real estate by 23%, and vacation homes by 16%. Another 16% had retirement plan balances not yet annuitized, and 8% reported a similar category—other vested contributory retirement accounts, which may also include tax-deferred annuity accumulations not yet annuitized.

For every asset category, the average (arithmetic mean) value of the holding was significantly higher than the median, indicating that the distribution did not fall into a normal bell-shaped curve. For example, respondents' primary residence had an average value of $148,700 and a median value of $101,900.

Another example from Table 3 also illustrates how the difference between median and mean values helps define the pattern of asset ownership. Although liquid assets and common stocks show roughly similar median values—$37,000 and $40,100, respectively—the average value of common stock assets ($103,300) was much higher than that for liquid assets ($62,300). Clearly, some very large

**Table 4**

Range of Selected Asset Holdings of TIAA-CREF Annuitant Households, by Asset Class
Percent Reporting the Asset

| Size of Asset Holdings | Liquid Assets | Stocks and Mutual Funds | Bonds[a] | IRA or Keogh Accounts | Real Estate[b] |
|---|---|---|---|---|---|
| Zero holdings | 9% | 50% | 75% | 62% | 77% |
| $1 - $9,999 | 17 | 9 | 4 | 11 | 3 |
| $10,000 - $24,999 | 16 | 8 | 7 | 16 | 5 |
| $25,000 - $49,999 | 18 | 9 | 3 | 7 | 5 |
| $50,000 - $99,999 | 20 | 8 | 4 | 3 | 3 |
| $100,000 - $199,999 | 13 | 8 | 3 | 1 | 3 |
| $200,000 - $499,999 | 5 | 5 | 3 | * | 2 |
| $500,000 or more | 1 | 2 | * | * | 1 |
| No answer | 0 | 2 | 1 | 0 | 1 |
| Total[c] | 100% | 100% | 100% | 100% | 100% |

* Less than 1 percent

[a] Corporate and government

[b] Real estate other than home

[c] Totals may not add to 100% because of rounding.

common stock holdings helped raise the average for common stocks to a level well above the median. Further information on ownership patterns is found in Table 4, which shows the range and amounts of asset holdings for five types of assets.

Many TIAA-CREF annuitants are rather well off financially; and the asset forms in which they invest are varied, as evidenced by the large number of modest holdings of certain assets such as common stocks, bonds, IRAs and Keoghs, equity in life insurance, and real estate. A small proportion (9%) have considerable wealth, which they have set aside in trusts.

But there is another side that is less reassuring. Looking at the data cumulatively, it can be seen that 26% reported less than $10,000 in liquid assets. Nine percent reported no liquid assets (defined as cash holdings, bank accounts, certificates of deposit, money market funds, and Treasury bills). While liquid assets of less than $10,000 were held by 17%, within this group about a third held liquid assets of $2,500 or less. Subgroups in which about 40% owned less than $10,000 in liquid assets included those under age 65, the divorced and separated, and those with high school educations, including some who had not graduated and others with some college training. While some people with few liquid resources might borrow against a home or have an illiquid asset to sell, others would have to rely on credit or other forms of debt to fund unusual expenditures—or not make them at all.

## Inheritances

As people grow older, they are more likely to receive an inheritance that can add substantially to wealth in later years. The survey found that 27% did receive such wealth transfers of an amount they considered "substantial"; about half of them also reported a second inheritance.

*Value of Inheritances* Since inheritances had been received over a wide period of time, the reported values were restated to a common base year (1982) by converting to constant dollars using the Consumer Price Index. The result indicated that the average adjusted value of first inheritances was $176,000, and of second inheritances, $178,000. Some very large inheritances raised these averages. About 18% reported a first inheri-

**Table 5**

Percent Reporting a Substantial Inheritance, by Specified Subcategories

| | Percent |
|---|---|
| Education | |
| High school education or less | 15 |
| Bachelor's degree or higher | 32 |
| Net Worth | |
| Under $100,000 | 13 |
| $600,000 or more | 57 |
| Financial Assets | |
| Under $10,000 | 10 |
| $200,000 or more | 52 |
| Financial Position | |
| "Worse off" than 5-10 years ago | 21 |
| "Better off" than 5-10 years ago | 31 |
| Savings | |
| No savings in the last 5 years | 21 |
| Saved 10% or more of income | 31 |

tance of $50,000 or more (in 1982 dollars), and 11%, $100,000 or more.

*Respondents Receiving Inheritances* Table 5 shows that annuitants who reported inheritances generally had higher educational levels, higher net worth, higher levels of financial assets, a better reported current financial position, and greater amounts of savings.

## Gifts

About 10% reported they had received "substantial" gifts from living parents, grandparents, or other relatives. Where gifts were received, they averaged $51,000 and had a median value of $24,000 (in current dollars).

Three times as many respondents (30%) reported providing substantial gifts to children, parents, or other relatives than had received gifts. In current dollars, these gifts averaged $37,000 and had a median value of $20,000 (Table 6).

As might be expected, the greatest differences in the proportion giving a substantial gift and its amount were related to level of respondents' net worth. Somewhat surprisingly, 16% of respondents with lowest net worths (under $100,000) had made a cash gift. An intriguing point about their gifts is the average amount—nearly $25,000. However, for those with the highest net worths ($600,000 or more), the proportion was 51%, and the gifts averaged $63,000.

What factors seem to account for the seemingly high value of gifts from those with least assets? Although the gift question specified "grown children" and intended to exclude the financing of college educations, some may have included this purpose. The responses would have also included gifts for the purchase of a home, contributions toward graduate and professional education, the establishment of a business, care of elderly parents, etc. The data may also reflect situations in which older parents of modest means give assets to children in order to qualify for subsidized senior citizen housing and/or Medicaid-financed nursing home care.

## Savings

*Savings Patterns* Respondents were asked to estimate the portion of income they had saved over the last five years. Six percent gave no answer. Of the 31% who reported that they had not saved, 9% spent more than income and 22% spent about as much as income. Savers made up 63% of the total—23% who said they saved 1% to 5% of income; 15%, 6% to 9% of income; and 25%, 10% or more.

**Table 6**

Gifts to Grown Children, Parents, or Other Relatives
Percent Reporting "Substantial" Gifts and Size of Gift, by Net Worth

| Level of Net Worth | Percent Reporting Gifts | Average Amount | Median Gift Amount |
|---|---|---|---|
| Under $100,000 | 16 | $24,700 | $15,300 |
| $100,000 but under $300,000 | 29 | 20,600 | 12,800 |
| $300,000 but under $600,000 | 36 | 35,200 | 20,000 |
| $600,000 or more | 51 | 63,000 | 38,100 |
| All levels combined | 31 | $37,000 | $20,000 |

Table 7 shows the portion of income saved, by respondents' level of net worth, the factor accounting for the greatest difference in savings rates. As might be expected, rates of saving increase as net worth rises. For example, of those with a net worth under $100,000, 54% saved nothing over the last five years, and those who did indicated they saved about 3% of income, on average. In contrast, of those with a net worth of $600,000 and over, 80% saved something over the period, and their average savings were roughly 15% of income.

There were other subgroup differences. By age group, respondents age 65 to 69 were twice as likely to be nonsavers as were respondents age 80 and above (35% versus 17%). One-fourth of respondents with doctoral degrees reported no net savings in the last five years, compared with 44% of respondents with an educational level of high school or less. Since those with an educational level of high school or less often have low net worth (as shown in Table 1), many in this group, as well as others with low net worth, may have almost no financial cushion for meeting financial exigencies.

*Other Differences in Savings Patterns* Respondents were asked if they had retired earlier than originally planned, at the time they had planned, or later. Those who retired earlier than planned were more likely to report spending all income during retirement (38%) than did those who retired when planned or later (26%). Another difference in savings habit was discerned among respondents who reported that they were in fair or poor health compared with those in excellent health. Thirty-nine percent of those in fair or poor health said they spend all income, compared with 25% of those in excellent health. A comparable difference appeared among respondents who reported inadequate versus adequate health insurance. Forty-three percent who indicated inadequate health insurance said they spend all income, compared with 22% who have adequate health insurance.

One economic theory holds that in the short run, people tend to preserve their standard of living. This theory was supported by the data. Retirees who reported that their current living standard was lower than before retirement had a much higher rate of nonsaving (57%) than did those who said their living standard was about the same as or higher than before retirement (27% and 22%, respectively).

## Motives for Current Saving

Annuitants who saved during the last five years were asked to indicate the degree of importance of each of eight motives for their current saving. (See Table 8.) Since the respondents are largely retired from work and older, it is not surprising that the two motives of greatest importance are to build reserves for nursing home care and other medical costs.

Health cost-related motives for saving were stronger at higher ages than at lower ages, but the greatest difference occurred among respondents according to their level of wealth. For example, 30% with a net worth under $100,000 said making provision for nursing home care was "extremely" or "very" important, compared with 62% of those with a net worth of $300,000 and above. These and other survey data suggest that it is the middle class that is most strongly concerned about financing nursing home care.

Saving to support general expenses during old age was the third highest ranking motive. This motive received a generally high rating across the wealth and age spectrums, except for a decline among those age 80 and higher. Continued emphasis in retirement on saving to preserve consumption levels may be due to numerous factors: awareness of increasing longevity; a shifting of consumption during old age to include purchased personal services or care; adherence to previous motives for saving; and concern about inflation.

Three other motives were reported to be "extremely" or "very" important by about a third of the respondents: to provide for higher income in the future; to offset possible loss of income; and to save because "saving is always a good idea." The strength of these three motives declined with respondents' age—but a fourth of the respondents age 75 and over still thought that "saving is always a good idea."

The two savings motives receiving the lowest number of "extremely" or "very" important responses were to provide an inheritance for grown children and to educate children or grandchildren—16% each. Also, percentages saying each motive was "not important" were quite high, 52% and 64%, respectively.

Undoubtedly, respondents who did not have children or grandchildren accounted in part for the low ranking of these motives. But for some, financial

**Table 7**

Portion of Household Income Saved by TIAA-CREF Annuitants over the Last Five Years, by Net Worth

| | Net Worth | | | |
|---|---|---|---|---|
| Percent of Income Saved | Under $100,000 | $100,000-$299,999 | $300,000-$599,999 | $600,000 and over |
| None | 54% | 29% | 18% | 16% |
| 1% to 5% | 25 | 28 | 19 | 14 |
| 6% to 9% | 6 | 18 | 22 | 15 |
| 10% or more | 6 | 22 | 34 | 51 |
| Don't know/no answer | 9 | 4 | 6 | 4 |
| Total | 100% | 100% | 100% | 100% |
| Median percent of income saved | 5% | 7% | 9% | 15% |

Note: Percentages may not add to 100 because of rounding.

**Table 8**

Motives of TIAA-CREF Annuitants for Current Saving, by Percent Designating Motives as Extremely or Very Important, or Not Important[a]

| | Percent | |
|---|---|---|
| Motive for Saving[b] | Extremely or Very Important | Not Important |
| Nursing home care | 55 | 27 |
| Other medical expenses | 51 | 27 |
| Consumption outlays in old age | 49 | 28 |
| Higher income in future | 33 | 36 |
| Loss of income | 32 | 52 |
| Inheritance for grown children | 16 | 52 |
| Educational expenses of children and grandchildren | 16 | 64 |
| "No special reason—saving is always a good idea" | 30 | 40 |

[a] An additional response category, "Of Some Importance," is not included in this table.
[b] Three percent of respondents did not answer this question.

Note: Data describe savings motives at the time of the survey and apply to annuitants who reported that over the last five years they saved some portion of income.

**Table 9**

Patterns of Saving and Dissaving of TIAA-CREF Annuitants
Percent with Alternative Patterns of Saving,
by Net Worth[a]

| | | Net Worth | | | |
|---|---|---|---|---|---|
| Patterns of Saving and Dissaving | Total | Under $100,000 | $100,000-$299,999 | $300,000-$599,999 | $600,000 and over |
| Saved before retirement; will draw down savings in retirement | 39% | 40% | 42% | 35% | 35% |
| Saved before retirement; will continue to save in retirement | 45 | 28 | 48 | 53 | 55 |
| Saved little before or after retirement | 13 | 31 | 9 | 6 | 5 |
| Other | 3 | 1 | 2 | 6 | 5 |
| Total | 100% | 100% | 100% | 100% | 100% |

[a] Percentages may not add to 100 because of rounding.

assistance for children and grandchildren may be less a goal of current savings than a function of intended transfers of accumulated wealth to the next generation. The matter raises an issue of continuing interest to economists, the life-cycle theory of savings behavior.

## A Theory of Saving—Life-Cycle or Intergenerational Transfer

Economists have long been concerned with the development and implications of a theory of individual saving—why saving occurs, what determines the rate, and what becomes of accumulated savings or wealth.

Economists have advanced two main hypotheses to explain the path of savings: life-cycle and intergenerational transfers. The first hypothesis, developed and refined by the economist Franco Modigliani, uses the model of the life cycle to explain the pattern of savings and assets in elderly households.[3] In the life-cycle hypothesis (in simplified form), the ultimate goal of individual economic activity is consumption, and people save in order to smooth their consumption over their lifetime. They save during their working years, accumulating wealth as age advances, and then use the savings to finance consumption during retirement. In a basic formulation of this hypothesis, all savings and assets are used up by the end of life. But economists working with empirical data have observed that accumulated assets are often not used up by the end of life, and refinements have been made in the life-cycle hypothesis to account for this finding.[4]

An alternate theory holds that saving is not solely motivated by consumption but also includes the motive to accumulate and transfer wealth to future generations. This theory is often described as one of intergenerational transfers.

Data from the survey suggest that both theories are relevant for TIAA-CREF annuitants, but that refinements—and perhaps a new construct—are called for.

*Attitudes toward Leaving an Estate* The survey asked annuitants about their intentions to leave an estate, i.e., to effect an intergenerational transfer. In response, 42% stated that leaving an estate is "almost an obligation" or "is quite important." The rest felt that leaving an estate is not important. Respondents with children (45%) were more likely than others to think leaving an estate is quite important, but so did 23% of those without children.

As might be expected, respondents who said they valued leaving an estate generally had a higher net worth. Just over half of respondents with a net worth of $600,000 or more said leaving an estate was important; in contrast, about one-third of those with a net worth of less than $100,000 thought it important.

*Savings Patterns* As a further inquiry into lifetime savings patterns and to test the theory that people generally save during the working years and use up savings during retirement, the survey asked respondents to classify themselves according to one of three savings patterns. These patterns are: (1) saved before retirement and expect to draw down savings during retirement; (2) saved before retirement and will continue to save during retirement; and (3) saved little before or after retirement. Table 9 shows the results.

Table 9 indicates that 39% followed a life-cycle savings approach, i.e., saving before retirement and using up savings during retirement. But a sizable portion of them (40%) were not life-cycle purists and thought it important to leave an estate to children or to a charitable cause; the rest did not. Just under half of all respondents (45%) save about as much or more during retirement as before. They more closely fit the intergenerational transfer model. But they too were divided about leaving an estate: 44% said it was important, and 55%, not important. Thirteen percent of respondents had been unable to save either before or after retirement. Nevertheless, 30% of them thought it important to leave an estate, while 63% did not. Another 3% of respondents reported some other type of savings behavior.

There is an interesting point in the data. About half of those with a net worth of at least $100,000 reported that they continue to save in retirement as they had before retirement.[5] (See Table 9.) Clearly, any belief that retirees make little new contribution to society's savings needs reexamination; the survey data indicate that both saving and dissaving occur within retiree groups.

## Change in Financial Status

Annuitants were asked how they had fared financially during their retirement years: Were they better off, about the same, or worse off than five to ten years ago? In response, 46% reported they were better off; 28%, about the same; and 24%, worse off. There were considerable differences among various subgroups of respondents.

As shown in Table 10, women (38%) were less likely than men (51%) to say they were better off. There was also a difference according to marital status: 50% of married respondents said they were better off, compared with 35% of those who were single, divorced, or separated. By educational level, college graduates were more likely to say they were better off (53%) than were holders of either a master's (48%) or a doctorate, legal, or medical degree (45%). Respondents who had not gone beyond high school were least likely to report improvement in their financial situation (39%).

The largest differences, as might be expected, were related to financial variables. Respondents with high net worths and larger financial assets were most likely to say they were better off. Two-thirds of those with a net worth of $800,000 or more said they were better off, compared with just over one-fourth of those with a net worth under $50,000. Similar differences occurred between "big savers," whose annual savings averaged 10% or more of income over the last five years, and nonsavers. Two-thirds of big savers and just one-fourth of nonsavers said they were better off.

*Prior Expectations* Respondents were asked whether their current financial situation was better or worse than they had expected it to be five to ten years previously. Forty-one percent said they were "better off" or "much better off" than expected; 31% said "about the same as expected"; and 21% said "worse than expected." Seven percent gave no answer.

Respondents more likely than others to say their current financial situation was better than expected included the married, big savers, those having a high net worth, and those having adequate health insurance. Those more likely to reply "worse than expected" included those who retired earlier than planned, those who were not yet retired, those under the age of 60, the divorced and separated, those with a low net worth, and those with inadequate health insurance.

*Future Expectations* Respondents were also asked whether they expected to be better off or worse off financially during the *next* five years. One-fifth ventured "better off"; about a third said "worse off"; and another third said "about the same." Ten percent gave no answer. Those most likely to say they expected to be worse off included those holding doctorate and equivalent degrees, those who retired at later ages, nonsavers, those in fair or poor health, and those with inadequate health insurance.

For some subgroups, the proportion thinking they will be better off in the future tended to be large. For example, 56% of respondents under age 60—

**Table 10**
Percent of TIAA-CREF Annuitants Who Said They Were
Financially Better Off than Five to Ten Years Ago[a]
Comparison of Selected Subgroups

| Type of Variable | "Better Off"[b] | "Better Off"[b] |
|---|---|---|
| Sex of respondent | 51% Males | 38% Females |
| Marital status | 50% Married | 35% Single divorced separated |
| Educational attainment | 53% College graduate | 39% High school graduate less |
| Health | 53% Excellent | 39% Fair poor |
| Adequacy of health insurance | 61% Adequate | 28% Not adequate |
| Net worth | 67% $800,000 or more | 27% Under $50,000 |
| Total financial assets | 62% $200,000 or more | 34% Under $10,000 |
| Average annual savings, last 5 years | 67% 10% or more of income | 25% None |
| Recipient of significant inheritance | 52% Yes | 43% No |
| Size of TIAA-CREF pension | 53% $24,000 year and over | 43% Under $5,000 year |

[a] Five to ten years prior to survey year of 1988. Percentages are based on denominators that include "no answers."
[b] Includes respondents saying they were "much better off" and "better off."

most of whom were still working—felt they would be better off, compared with 12% to 15% of respondents age 65 and older. Similarly, 39% of those not yet retired expected to be better off, compared with 17% of those already retired. Thirty percent of respondents reporting adequate health insurance had a positive view of the future, compared with 11% of those who reported inadequate health care coverage.

*Future Financial Obligations* When asked whether they expected to have major financial obligations in the future, about 60% thought they would, either certainly or probably, and 40% did not expect to. As to the type of obligations expected, health care costs were the principal concern, named by 44%. Nothing else was cited by more than 10%. Health care costs were more likely to be cited by older respondents, by single persons, by women, and, of course, by those with inadequate insurance.

### Health and Health Insurance

*Health Status* When asked to compare their state of health with that of others their age, 80% said it was excellent or good; 17%, fair; and 3%, poor. Comparatively poor health was more likely to be indicated by the oldest respondents and by those retired the longest.

Financial status appears to be related to health status. Fifty-seven percent of respondents who reported they were better off financially than five to ten years earlier indicated their health was excellent, in contrast to just 27% of those who said they were worse off. Big savers and those with a high net worth were also much more likely to say their health was relatively excellent.

*Health Insurance* The survey asked if they thought they would have adequate insurance against the financial costs of a serious health problem. Twenty percent thought their insurance would be adequate; 43%, probably adequate; and 22%, not adequate. The rest were not certain. Men were more likely than women to think they would be adequately insured; married, more likely than nonmarried; those in excellent health, more likely than those in fair or poor health; and those financially better off than five to ten years ago, more likely than those worse off financially. The statistics suggest several possible relationships:

- Deterioration in financial status may have reduced confidence in the ability to bear medical costs;
- Costs related to previous health problems may have eroded the respondent's current financial position;
- Individual experience may have led to diminished optimism about the adequacy of health insurance protection.

As Table 8 indicated, respondents ranked meeting future health care expenses highest in importance among eight savings objectives. This motive for saving was closely related to perceptions about the adequacy of their health insurance. Seventy percent of those who thought their health insurance would be inadequate said that medical care costs were a very important reason for saving, compared with 30% of those who thought their health insurance was adequate.

### Conclusion

The study of TIAA-CREF annuitants offers some unusual insights into net worth, asset composition, financial status, and current savings behavior of

#### Profile of the Retired Respondents

The 925 respondents, consisting of faculty, other professionals, and nonprofessional support staff, were all receiving TIAA-CREF annuity benefits. Of these, 89% indicated they were retired; 10% were not retired. This box summarizes some specific information about the retirees.

*Age at Retirement* Forty-six percent retired before age 65; 23% at age 65; 20%, between age 66 and 69; and 9%, at age 70 or older (3% gave no answer).

Fifty-five percent of women and 39% of men retired before age 65.

Retirement before age 65 was reported by 60% of respondents with a high school education, compared with 26% of those holding doctorate, law, and equivalent degrees. Four percent of those with a high school education retired as late as age 70, compared with 14% with the highest education level.

*Health* One in eight said poor health was a factor in the decision to retire, and it was more likely to be a factor for those who retired at younger ages. Those for whom poor health influenced the timing of retirement were more likely to say their current living standard was lower than before retirement (33%) than those for whom health was not a factor (18%).

*Standard of Living* When asked to compare their present living standard with that before retirement, almost eight in ten said it was higher or about the same; two in ten, lower. Women were less likely than men to say it was higher; the older were less likely than the younger, and the least educated, less likely than the most educated.

*Future Expectations* Almost three in four retirees thought their living standard would remain about the same in the future; one in twenty expected an improved standard; and four in twenty, a lower standard.

the retired employees of educational institutions.

The financial worth of TIAA-CREF annuitants is substantially higher than that of the general population. Older TIAA-CREF households in particular compare favorably with others: 75% of those age 75 and older were in the $100,000-and-over category, compared with 35% of U.S. households generally. The net worth of the TIAA-CREF annuitants averaged $356,000, with a median of $209,600. Census Bureau data for the general population in 1988 indicate that the median net worth for households with those age 65 and over was $73,471.[6]

The TIAA-CREF annuitants' net worth is composed of various asset types. Next to liquid assets, reported by 91%, the most frequently reported asset (83%) was their home. Except for special assets reported by relatively small proportions, the home was the asset with the highest average value, $148,700. Just 7% of home owners had mortgages, which averaged about $40,000.

The third most frequently held asset, reported by 50%, was common stocks, with an average value of $103,300. The lower median common stock asset value of $40,100, however, indicates that such holdings were not evenly distributed, and some had substantially higher common stock holdings.

The survey tested the life-cycle hypothesis of savings, finding that roughly one in three respondents reported they were no longer saving and were spending about as much as or more than income. However, 63% reported that they were continuing to save, although at varying rates. A fourth of the respondents had been saving at least a tenth of their income annually.

What are the motivations for saving in retirement? Highest in importance were saving for possible future nursing home care and saving for other medical expenses. Other important motivations were saving for future consumption, for a hedge against inflation, and for other "precautionary" purposes. Transferring wealth to the next generation was not a major savings objective for many when ranked with certain other savings objectives; it tied with paying for the education of children or grandchildren as the lowest-ranking motive.

Nevertheless, in response to a separate question, 42% reported that they believed leaving an estate is important. It seems that annuitants distinguish between saving now for the purpose of making an intergenerational transfer, which they say is of relatively low priority, and an ultimate goal of transferring wealth to children or others, which is important to nearly half.

It is commonly thought that retirees will experience a deterioration in financial position as consumer prices increase. The survey found that, overall, 46% reported themselves actually better off financially than they were five to ten years ago, and 28% were about the same; only 24% said they were worse off. Those with higher net worth were almost twice as likely to say they were better off than those with low net worth.

Level of net worth, as well as current income, plays an important role in retirement. Together, these resources help retirees maintain their previous standard of living and finan-

**Profile of the Retired Respondents** (continued)

*Social Security and Annuities* Nine out of ten said they were receiving Social Security benefits, in addition to their TIAA-CREF annuity income. The average annual Social Security benefit (including spouse's benefit) was $10,920. Average annual TIAA-CREF income was $9,360. Median values were lower—$5,570 for TIAA-CREF and $10,310 for Social Security.

The survey did not probe the extent of the respondents' pension plan participation before retirement. Quite likely the modest TIAA-CREF annuity amounts reflect a range of causes: a history of lower salaries; employment outside education; employment at institutions in which pension plan participation was not required; employment at institutions with plans that excluded certain employee classifications before federal regulatory rules were changed; employment at institutions with delayed vesting plans and/or low contribution rates; early start of annuity benefits; or the election of survivor income options that set lower annuity benefits to accommodate the life expectancies of more than one individual. Employment history data from the survey indicate that half worked for five or more different employers over their work careers.

As to other pensions, most of these were modest in size. Five percent had spouses who were also receiving TIAA-CREF pensions, averaging $7,280 a year. Half the retirees had a public or other private pension that averaged $6,020 a year.

*Fixed and Variable Income* When TIAA-CREF retirees annuitized their pension plan accumulations, TIAA was generally favored over CREF. Over a third (36%) received TIAA income only; 38% balanced their income about 50-50 between TIAA and CREF; and 26% had a greater proportion of CREF income.

ial position. They also give them a reassuring choice of options for improving their quality of life in retirement and for meeting any emergencies or health problems. Thus, the level of net worth an individual achieves is an important consideration in approaching as well as in moving through retirement.

The survey results indicate that the TIAA-CREF annuitants have generally been successful in providing for economic security in retirement, supplementing their employer-sponsored retirement plans and Social Security with individual savings and investments, thus making up the "three-legged stool" of retirement protection.

The annuitant survey group consisted of a cross section of faculty, other professionals, and support staff. We observe that the fairly modest levels of TIAA-CREF pension income reported on average by the annuitants are related to diverse factors that reflect the broad range of backgrounds and employment history of the survey group. They include different career salary levels, plan contribution rates, length of plan participation, gaps in plan participation due to various job changes in a career, pension accumulation cashouts, and, perhaps, failure to participate or to match contributions at maximum available levels in voluntary plans.

The TIAA-CREF survey data suggest how important it is for institutions to stress the basics of retirement plan participation to their employees. While employer-sponsored plans can create the primary asset value in retirement, supplementary personal savings and investments can enhance not only net worth but also the retiree's sense of security and well-being. Institutions can play a role in making employees aware of the importance of early financial planning, personal saving, and investments for future retirement, encouraging them to make maximum use of salary-reduction programs for supplementary retirement income. (This report was prepared for *Research Dialogues* by Dr. Peggy Heim, Senior Research Officer, TIAA-CREF.) ❑

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1 The 65% response rate resulted in 925 usable responses. All respondents were receiving TIAA-CREF annuity benefits; 89% reported that they were retired; 10% were not retired; and 1% gave no answer. Eighty-six percent of male respondents were married; 5%, widowed; 5%, separated or divorced; and 4%, never married. Forty-five percent of female respondents were married; 26%, widowed; 16%, never married; and 13%, separated or divorced. The average age of respondents was 68.7 years and was about the same for women and men. Overall, 5% of respondents were under age 55; 16%, age 55 to 64; 60%, age 65 to 74; and 19%, 75 and over. As expected from the specialized sample, the educational attainment of respondents was relatively high, with probably some response bias toward faculty and administrators compared with various staff and service positions. Fifteen percent had a high school education or less; 12%, some college training; 16%, a four-year college degree; 26%, a master's degree; 30%, a doctorate, medical, or law degree; and 1%, other.

To most questions relatively few gave no answers, and the total sample of 925 respondents is used as the denominator for the calculations. When reporting the statistical breakout for responses to specific questions, we do not generally show the percentage with no answer unless it is substantial (e.g., over 4%) or is substantial and not given in a table.

2 F. Thomas Juster and John Laitner, "The TIAA-CREF Data Base: A Special Purpose Data Set for the Analysis of Life-Cycle Saving Behavior" (unpublished manuscript), Institute for Social Research and Department of Economics, The University of Michigan (April 1990): 2-3.

3 The life-cycle savings hypothesis was first formulated by Richard Brumberg and Franco Modigliani in 1954: Franco Modigliani and Richard Brumberg, "Utility Analysis and the Consumption Function: An Interpretation of Cross-Section Data," in *Post-Keynesian Economics*, ed. K.K. Kurihara (New Brunswick, N.J.: Rutgers University Press, 1954), 338-436. It was later developed and amplified by Modigliani and Albert Ando as a framework for a consistent understanding of savings behavior. A review of the history and applications of the life-cycle hypothesis is in Franco Modigliani, "Life Cycle, Individual Thrift, and the Wealth of Nations," *American Economic Review* 76, no. 3 (June 1986): 297-313.

4 Franco Modigliani has noted that decumulation, at least of marketable assets, seems to take place too slowly to be explained by the basic life-cycle hypothesis (*American Economic Review* 76, no. 3 [June 1986]: 307). The finding in the 1988 survey of TIAA-CREF annuitants that most retired annuitants were not dissaving and that many were continuing to accumulate wealth at a significant rate supports the Modigliani observation about slowness of decumulation. Only 9% of retired TIAA-CREF annuitants providing saving dissaving data reported that over the last five years they had spent more than income; 25% said they had spent about as much as income. On the other hand, 42% reported that they had saved 6% of income or more.

Modigliani and other economists (in particular J.B. Davies, "Uncertain Lifetime, Consumption, and Dissaving in Retirement," *Journal of Political Economy* 89, no. 3 [June 1981]: 561-577) have advanced the view that slowness of decumulation might be explained in part by uncertainty about the length of life. In his *American Economic Review* article, Modigliani notes that this uncertainty may be further reinforced by the uncertainty of incurring major medical expenses. In the survey of TIAA-CREF annuitants, responses of those who reported they had saved over the last five years support this refinement. The two motives that the largest number of retired savers who provided data considered "very important" for their current savings behavior were making provision for "nursing home care" and for "other medical expenses," 58% and 55%, respectively. With 48% ranking it as "very important," the third-ranked savings motive, "to finance consumption in old age," appears to serve similar or related functions.

5 The high proportion of respondents with a net worth of $100,000 or more who continue to save about as much after retirement as before supports incorporating into the life-cycle saving model the precautionary motive related to uncertainty (duration of life and cost of health care services) to explain the slowness of decumulation. It also suggests further modifications in the hypothesis. The first modification in the precautionary motive makes adjustments dynamic, with ongoing revisions, as situations, information, and awareness change (e.g., medical technology and cost of health-related services; knowledge about the incidence and implications of Alzheimer's and similar diseases). The second incorporates the dynamic adjustments into the acts of saving and dissaving. With these adjustments, saving may not cease at, or close to, retirement, but continue, perhaps indefinitely. As a result, the path of saving and accumulated wealth may not be predictable.

6 U.S. Bureau of the Census, "Household Wealth and Asset Ownership: 1988," *Current Population Reports*, ser. P-70, no. 22 (Washington, D.C.: U.S. Government Printing Office, December 1990), table E, p. 6. For other age-related data on the distribution of net worth, see p. 19.



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