# Factors Predicting the Most Important Source of Retirement Income

*What are the factors that predict workers' identification of their most important source of retirement income? Older workers, for example, tend to rely on employer provided pensions or Social Security. In comparison, younger workers expect their contributions at work or their personal savings and investments to be their most important source of retirement income.*

*BY SHARON A. DEVANEY AND YA-PING SU*

Financial security in retirement is a major concern of today's workers. While many workers say they are saving for retirement, they are less confident about having enough money for retirement than those in earlier years. In 1996, 19 percent were very confident and 43 percent were somewhat confident about money for retirement, but comparable figures for 1995 were 22 and 52 percent, respectively, indicating a total drop in confidence of 12 percentage points in 1 year.[1]

Income in retirement has traditionally been viewed as a three-legged stool consisting of Social Security, employer-provided pensions, and private savings. Many believe that the legs of the stool have weakened and that a fourth leg, earnings, is increasingly necessary to support retirement. These concerns abound for a number of reasons. First, some workers feel that future Social Security benefits will not be equal to current benefits.[2] Second, starting in the mid-1980s, employers increasingly moved toward retirement coverage under defined contribution plans and away from defined benefit pension plans. Defined contribution plans require workers to set aside savings from current income. By 1993, 49 percent of full-time workers in medium and large private establishments (those employing 100 or more workers) participated in defined contribution plans and 56 percent in defined benefit plans compared to 41 percent and 80 percent, respectively, in 1985.[3] Third, between 1992 and 1995, the proportion of families who saved in the preceding year declined. Over this period, the aggregate personal savings rate as reported in the national income and product accounts fell from 5.9 to 4.7 percent.[4]

This article focuses on the analysis of factors predicting workers' most important source of retirement income. Responses from 774 non-retired workers participating in the 1995 Retirement Confidence Survey sponsored by the Employee Benefit Research Institute

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showed that the four most important sources of retirement income are: Employer-provided pension plans, worker's own contribution to a pension plan, Social Security, and personal savings and investments.[5] To understand why workers selected one retirement income source as more important than the others, the authors used logistic regression analysis to determine which factors (age, income, expectations for the future, financial preparation, etc.) were predictors of the most important retirement income source. After a discussion of the primary retirement income sources, sample characteristics and study findings are described.

### Social Security

Social Security is a source of retirement income for most persons. In 1994, 91 percent of all couples and single persons over 65 received Social Security benefits.[6] Asset income—income from savings and investments—was received by 67 percent; retirement benefits other than Social Security by 42 percent; and earnings from employment by 21 percent. Although Social Security retirement benefits are common, they represent less than half of all retirement income received by the elderly, i.e., those age 65 and older. In 1995, the percentage of income of the elderly from each source was:

| | |
|---|---|
| Social Security | 42.8 |
| Pensions and annuities | 19.0 |
| Assets | 18.2 |
| Earnings | 17.8 |
| Other | 2.2 |

Although middle- and lower-income workers remain highly dependent upon Social Security, more affluent workers are likely to receive a greater proportion of retirement income from private sources. Data from the 1994 Current Population Survey show that, among the elderly, the poorest 20 percent received 81 percent of retirement income from Social Security; 11 percent from public assistance; 2.7 percent from assets; 2.5 percent from pensions and annuities; and 2.6 percent from other sources. However, the most affluent 20 percent of the elderly received 22.7 percent of income from Social Security; 24.4 percent from assets; 20.7 percent from pensions and annuities; 28.5 percent from earnings; and 3.7 percent from other sources.[7]

Elderly women receive a greater share of income from Social Security and assets than men. In 1995, Social Security accounted for 51.2 percent of their income compared to 36.6 percent for men. Women also received 22.9 percent of income from assets compared to 14.8 percent for men. In contrast, 22.6 percent of men's retirement income was derived from pensions and 23.6 percent from earnings compared to 14.1 and 10.0 percent, respectively, for women.[8]

### Pension coverage

In 1993, almost two-thirds (64 percent) of all wage and salary workers reported that their employer sponsored a pension or a retirement plan. Employers may legally exclude certain categories of workers such as part-time or temporary employees from coverage and may impose minimum age and eligibility requirements. Hence, less than half (49 percent) of all wage and salary workers reported coverage under an employer pension or retirement plan. Among full-time workers, 85 percent of government employees and 50 percent of private workers were covered by an employer-sponsored pension or retirement plan in 1993, showing the greater likelihood of coverage for government employees compared to private sector workers. The overall coverage rate for full-time private sector workers has been relatively stable since 1972, but there have been shifts in the types of plans and the subgroups of workers who are covered.[9]

Since the mid-1980s, there has been increasing coverage under 401(k) plans and decreasing coverage under both defined benefit pension plans and non-401(k) defined contribution plans. The incentive for workers to participate in 401(k) plans is the tax deferment of employee contributions, but employee contributions reduce current compensation. Thus, younger, lower paid workers are less likely than older workers to participate in 401(k) plans. In 1993, 32 percent of private wage and salary workers under 30 were covered under 401(k) plans compared to 56 percent of similar workers over 30.[10]

Pension coverage rates for women increased steadily between 1972 and 1993 because plan coverage increased in the service industries where more women tend to be employed. Overall coverage for men declined because of a lack of growth in the manufacturing industry where more men are employed. Coverage rates for male and female full-time private wage and salary workers in 1993 were 51 and 48 percent, respectively, compared to 55 and 38 percent, respectively, in 1979.[11]

Other factors associated with pension coverage and pension receipt are workers' education, income, years of service, and size of firm. Data from the September 1994 Current Population Survey illustrate these relationships. One-third of retirees without a high school diploma received a private pension compared to 62 percent of those with a master's degree or higher. Of retirees who earned less than $10,000 in their last year of work, 12 percent received a pension compared to 68 percent of those who earned between $40,000 and $50,000 in their last year of work. Of retirees formerly employed in firms with fewer than 25 workers, 11 percent received pensions compared to 68 percent of those who had worked in firms with 1,000 or more workers. Longer job tenure is also related to increased likelihood of pension receipt.[12]

## Personal savings and investments

The life-cycle hypothesis suggests that savings will vary by age and life-cycle stage. Because a level stream of consumption is preferred, younger people are likely to dissave, that is, go into debt, as they establish households and purchase durable goods. As they approach mid-life and as income increases, they tend to save at relatively high levels compared to earlier savings levels. After retirement, the life-cycle hypothesis suggests that dissaving will occur as many retirees receive a reduced level of income and also need to spend assets to fund the desired level of consumption.[13] Some studies, however, have shown that retired persons continue to save because of precautionary motives or estate planning. For example, the 1995 Survey of Consumer Finances showed that proportionally more families headed by persons aged 75 and older were savers in 1995 than in 1992.[14]

Saving for retirement is usually thought of as a process requiring long-term planning. Interestingly, retirees in the 1996 Retirement Confidence Survey indicated a lack of confidence in their own personal financial planning for retirement. Somewhat more than half (56 percent) of retirees reported that they had saved some money for retirement. Of these, 76 percent did not begin saving until they were 40 or older.[15] (This definition of savings does not include the purchase of a home.)

Active workers in the 1996 survey seem to be doing better. Sixty-four percent have set aside money, apart from Social Security or employer-funded pensions but including 401(k) plans, for retirement on a regular basis. Older workers were more likely to have savings than younger workers. Only one-third of the workers, however, had tried to calculate how much money they would need to save for retirement. Those who had not tried to calculate an amount said that they were unable to save a greater amount than they were currently saving or that it was not possible to know how much would be needed.[16]

## Expectations for the future

In addition to socioeconomic factors such as age and income, factors that could influence beliefs about retirement income are expectations for the future. Interview questions from the 1995 Retirement Confidence Survey asked about life-style in retirement and confidence in the future related to both health and Social Security benefits. Life-style was measured by the answer to: "What do you expect your lifestyle in retirement to be like?" Responses were "very comfortable," "comfortable," "just make ends meet," "will struggle to get by," and "don't know." Health was measured by the question: "How confident are you that you (and your spouse) will be healthy enough to enjoy your retirement years?" Feelings about Social Security were measured by the question: "How confident are you that the Social Security system will continue to provide benefits of equal value to the benefits received by retirees today?"[17]

## Financial preparation for retirement

Current workers' financial preparation for retirement was measured by asking if they used an Individual Retirement Account (IRA), whether they saved what was left at the end of the month, and if they had an automatic deposit (not including a 401(k) or company pension plan). Interviewees were also questioned about receiving assistance for retirement planning from: A stockbroker, an insurance agent, accountant, or employer. An index was created by adding the number of sources that were used.[18]

## Study details

Data from the Retirement Confidence Survey (RCS), sponsored by the Employee Benefit Research Institute, were collected by telephone in July, 1995, by Mathew Greenwald and Associates, Inc. Random digit dialing was used to obtain a representative sample. A total of 1,000 interview responses were obtained from retired persons and current workers over the age of 26.[19] This analysis was based on data from the 774 current workers participating in the survey. Not included in the analysis were: Respondent and spouse who were both retired; respondent who was a homemaker with a retired spouse; respondent who was a homemaker and not married; and respondent who was married, but was retired. Missing data in small proportions for the socioeconomic variables were recoded to the mean.[20]

## Findings and discussion

Table 1 presents characteristics of the sample. The average age of the respondents was 42 years. Educational attainment varied within a narrow band. Those having a high school education or less accounted for 35 percent of respondents; those having some college education, 32 percent; and those having a college education, 32 percent. About 20 percent had household incomes below $25,000; nearly 50 percent had incomes between $25,000 and $50,000; and almost 32 percent had incomes over $50,000. Sixty-three percent were married. Sixty-seven percent of the respondents in the RCS expected to have a "very comfortable" life-style in retirement. And 53 percent saved what was left at the end of the month; 36 percent used an automatic deposit; and 36 percent had an Individual Retirement Account (IRA).

The most important sources of retirement income were: Employer pensions, 26.1 percent; own contribution at work, 24.7 percent; Social Security retirement benefits, 15.1 percent; personal savings and investments, 27.5 percent; and other, 6.6 percent.

**Table 1. Independent variables in logistic regression models, Retirement Confidence Survey, 1995**

| Variable | Average or percent | Definition |
|---|---|---|
| Age | Mean = 42.1 | Respondent's age in years |
| Education | | Respondent's education |
| High School or less | 35.4 | |
| Some college | 32.4 | |
| Bachelors degree or higher[1] | 32.2 | |
| Income | | Total annual household income |
| Low | 20.5 | Less than $25,000 |
| Middle | 47.7 | $25,000-$50,000 |
| High[1] | 31.8 | Over $50,000 |
| Sex | | |
| Male | 50.0 | |
| Female[1] | 50.0 | |
| Marital status | | |
| Married | 63.0 | |
| Not married[1] | 37.0 | |
| Lifestyle | | Future lifestyle expectations |
| Very comfortable | 67.0 | |
| Otherwise[1] | 33.0 | |
| Health | | Future health expectations |
| Very confident | 31.0 | |
| Otherwise[1] | 69.0 | |
| Social Security | | Confidence in Social Security |
| Very confident | 3.0 | |
| Otherwise[1] | 97.0 | |
| IRA | | Use an Individual Retirement Account |
| Yes | 36.0 | |
| Otherwise[1] | 64.0 | |
| End Month | | Save what is left at end of month |
| Yes | 53.0 | |
| Otherwise[1] | 47.0 | |
| Deposit | | Have automatic deposit not including 401(k) or company pension plan |
| Yes | 36.0 | |
| Otherwise[1] | 64.0 | |
| Self advised | | Relied only on self when making financial plans for retirement |
| Yes | 34.0 | |
| Otherwise[1] | 66.0 | |
| Consult advisors | | Number of professional advisors used when making financial plans for retirement |
| No advisor | 59.0 | |
| One advisor | 24.0 | |
| Two advisors | 12.0 | |
| Three advisors[1] | 4.9 | |
| Employer | | Received assistance from employer |
| Yes | 40.0 | |
| Otherwise[1] | 60.0 | |

[1] Reference category.

NOTE: Percentages may not equal 100 due to rounding.

**Table 2. Logit coefficients (standard errors in parentheses), Retirement Confidence Survey, 1995**

| Independent variable | Dependent variable | | | |
|---|---|---|---|---|
| | Employer pension | Own contribution at work | Social Security | Personal savings |
| Age | -.021[1] | -.020[1] | .060[2] | .036[2] |
| | (.008) | (.022) | (.011) | (.009) |
| Education | | | | |
| High school | -.113 | -.159 | .425[3] | .206 |
| | (.130) | (.133) | (.183) | (.131) |
| Some college | -.031 | .025 | .095 | -.121 |
| | (.122) | (.123) | (.187) | (.125) |
| Income | | | | |
| Low income | -.190 | -.321 | .441[3] | -.095 |
| | (.177) | (.184) | (.204) | (.177) |
| Middle income | .232[3] | .042 | -.129 | -.034 |
| | (.118) | (.122) | (.169) | (.120) |
| Sex | | | | |
| Male | -.268 | .128 | -.056 | .470[1] |
| | (.173) | (.174) | (.245) | (.175) |
| Marital status | | | | |
| Married | .196 | .029 | -.160 | -.084 |
| | (.191) | (.192) | (.262) | (.193) |
| Lifestyle | | | | |
| Very comfortable | .165 | .197 | -1.173[2] | .507[3] |
| | (.200) | (.207) | (.261) | (.215) |
| Health | | | | |
| Very confident | .426[3] | -.132 | -.975[1] | .042 |
| | (.187) | (.191) | (.332) | (.188) |
| Social Security | | | | |
| Very confident | -2.42[3] | .836 | -.005 | .554 |
| | (1.041) | (.471) | (.781) | (.494) |
| IRA | | | | |
| Yes | -.431[3] | .068 | -.591 | .827[2] |
| | (.199) | (.194) | (.321) | (.195) |
| End of month saving | | | | |
| Yes | .107 | .131 | -.502[3] | -.034 |
| | (.174) | (.176) | (.251) | (.176) |
| Deposit | | | | |
| Yes | .184 | .080 | -.527 | -.054 |
| | (.186) | (.185) | (.321) | (.189) |
| Self advised | | | | |
| Yes | -.070 | -.121 | -.755 | -.098 |
| | (.296) | (.299) | (.435) | (.294) |
| Consult advisor | | | | |
| No advisor | .385[3] | .180 | .065 | -.563[1] |
| | (.200) | (.186) | (.333) | (.196) |
| One advisor | .422[3] | -.007 | -.169 | -.241 |
| | (.195) | (.183) | (.355) | (.178) |
| Two advisors | .157 | -.064 | .211 | .038 |
| | (.230) | (.215) | (.393) | (.206) |
| Employer | | | | |
| Yes | .558[3] | -.562[3] | -.030 | -.915[2] |
| | (.232) | (.230) | (.394) | (.227) |
| Constant | -2.719[2] | -.984[3] | -3.402[1] | .348[2] |
| | (.501) | (.497) | (.681) | (.495) |
| -2 Log Likelihood | 835.45 | 824.98 | 457.39 | 817.23 |

[1] Significant at $p < .01$
[2] Significant at $p < .001$
[3] Significant at $p < .05$

Table 2 presents the results of logistic regression.[21] Logistic regression models were used to identify factors associated with the individual's most important source of retirement income. Each dependent variable was coded 1 if the individual selected that income source as the most important, or 0, if otherwise. The estimated parameters indicate the direction of effects (positive or negative) of the independent variables (age, education, income, lifestyle expectations, use of an Individual Retirement Account, and so forth).

*Employer pensions.* Of the socioeconomic factors that were included in the regression analysis, only age and income predicted that employer pensions would be the most important source of retirement income. Older workers were more likely to rely on employer pensions. Compared to upper-income workers, middle-income workers were more likely to rely on employer pensions. There were no differences by education level, gender, or marital status. Two future expectation factors predicted employer pensions. One was positive, the other was negative: Respondents were confident about their health in retirement but lacked confidence in the value of future Social Security benefits.

Surprisingly, few of the financial preparation factors were significant. Workers who planned to rely on employer pensions were more likely to receive assistance from an employer and to consult one professional financial adviser. However, these workers were less likely to fund an IRA.

These findings tend to reinforce what might be expected of workers who depend on a defined benefit pension. Such workers would tend to have a relatively long job tenure and an adequate income level. They also were probably covered by a health care plan that allowed them to take care of health needs during working years and, thus, ensure a healthy retirement. A lack of confidence in the value of future Social Security benefits could be explained by having Social Security withheld for many years, but becoming aware of possible changes in the system as these respondents near retirement. Receiving assistance from an employer is consistent with dependence on an employer pension. The security of a pension may have provided justification for not contributing to an IRA.

*Own contribution at work.* In contrast to respondents who depend on defined benefit pensions, regression analysis provided only limited information about those depending on their own contribution at work for retirement income. The analysis found that, other factors being equal, younger workers and those who did not consult with an employer were more likely to expect that their contributions to a plan at work would be the most important source of retirement income. Because none of the other socioeconomic, future expectation, or financial preparation factors were statistically significant, interpretation of these results is more subjective. Younger workers can expect to change jobs more often than in the past. Also, many workers are aware that fewer employers offer pensions based on longevity and salary, and that employers have increasingly shifted to defined contribution retirement plans which place the burden of retirement preparation on the employee.

*Social Security.* Socioeconomic factors that predicted Social Security as the most important source of retirement income were age, education, and income. Older workers, those with a high school education or less, and those with lower incomes were more likely to expect that Social Security would be the most important source of retirement income. These workers also tended to be less confident about their future, about their health in retirement, and about having a comfortable life-style in retirement. The only financial preparation characteristic that was a predictor was that these workers were less likely to save what was left at the end of the month. This indicates that they may be unable to save for retirement from current earnings because they have lower incomes and had to use their monthly earnings to meet basic needs.

*Personal savings and investments.* Findings for personal savings and investments provide an interesting contrast. Other factors being equal, age, gender, future expectations, and having an IRA predicted personal savings and investments. Thus, younger workers, males, and those expecting a "comfortable" lifestyle in retirement indicate an aggressive and optimistic approach to retirement preparation. These workers were less likely to receive assistance from an employer. Those who did not consult an advisor were less likely to rely on personal savings and investments compared to those who consulted three financial advisors, which was the reference category for the logistic regression.

These workers were less likely to consult with an employer which could mean that they may have no employer-provided pension or are self-employed. They are more likely to have an IRA, possibly because contributions can be deducted from gross income if there is no employer pension, thus providing a tax as well as retirement savings incentive.

## Summary and conclusions

*Socioeconomic factors.* Age was the only factor that was significant in all four regression models. Older people were more likely to rely on the traditional sources of retirement income of employer pensions and Social Security. Younger people were more likely to expect that their own contributions at work or personal savings and investments would be important in retirement. Although the results suggest that older people are more likely to plan for retirement in a conservative fashion, younger people may be more willing to take risks through investing and, therefore, plan to depend on themselves. It is also likely that younger people expect to change jobs more often and believe that they will be unable to depend on an employer pension.

The effects of income and education were not as strong as expected. Compared to the upper income group, the middle income group was more likely to rely on employer pension plans while the lower income group tended to rely on Social Security. Respondents with only a high school education were more likely to rely on Social Security.

Being male was a predictor of only one most important source of retirement income, that of personal savings and investments. This is consistent with current research showing that men take a more aggressive approach to investing than women.[22] Respondents' marital status had no effect on any of the dependent variables.

*Future expectations.* Workers who intended to rely on Social Security were less optimistic about their future life-style, while those who planned to rely on personal savings and investments were optimistic about their future life-style. Those who planned to rely on employer pensions expected good health in the future perhaps because they had received health care as an employee benefit. Those planning on Social Security were not confident about their future health. Workers planning to rely on employer pensions were less likely to be confident about future Social Security benefits.

*Financial preparation.* There were definite contrasts in financial preparation. Those who relied on personal savings and investments were more apt to have an IRA, while those who relied on employer pensions were less likely to have an IRA. Workers who relied on employer pensions were more likely to receive assistance from an employer, but those who did not consult employers were more likely to rely on their own contribution at work and personal savings and investments. The use of professional advisors had little effect on the probability of selecting any of the sources of retirement income.

In conclusion, a worker's age and beliefs about retirement were closely related to ideas about retirement income. Such findings may mean that workers now in their twenties will plan differently than baby boomers, many of whom are now beginning to put money into mutual funds and stocks.

*—ENDNOTES—*

[1] For more information, see Paul Yakoboski and Allen Schiffenbauer, "The Reality of Retirement Today: Lessons in Planning for Tomorrow," *EBRI Issue Brief*, Number 181, Washington, DC: Employee Benefit Research Institute, January 1997.

[2] See J.F. Wasik, "Will Social Security be There for You?" *Consumers Digest*, March/April 1996, pp. 49-54.

[3] For more information on defined contribution plans, see Ann C. Foster, "Defined Contribution Plans Becoming More Prevalent," *Compensation and Working Conditions*, June 1996, pp. 42-44, and Ann C. Foster, "Employee Participation in Savings and Thrift Plans, 1993," *Monthly Labor Review*, March 1996, pp. 17-22.

[4] Additional information may be found in A. B. Kennickell, M. Starr-McCluer, and A. E. Sunden, "Family Finances in the U.S.: Recent Evidence from the Survey of Consumer Finances," *Federal Reserve Bulletin*, Volume 83, Number 1, January 1997, pp. 1-24.

[5] For more information about the 1995 Retirement Confidence Survey, see *1995 Retirement Confidence Survey*, Washington, DC: Mathew Greenwald & Associates and Employee Benefit Research Institute, July 1995.

[6] See *Income of the Aged Chartbook, 1994*, Publication 13-11727, Social Security Administration, Office of Research and Statistics, 1996.

[7] See P.M. Wheeler and J.R. Kearney, "Income Protection for the Aged in the 21st Century: A Framework to Help Inform the Debate," *Social Security Bulletin*, Volume 59, Number 2, Summer 1996, pp. 3-19.

[8] See "Income of the Elderly, 1995," *Facts from EBRI*, Washington DC: Employee Benefit Research Institute, February 1977.

[9] For more information on pension coverage, see *Pension and Health Benefits of American Workers: New Findings from the April 1993 Current Population Survey*, Department of Labor, Pension and Welfare Benefits Administration, 1994.

[10] See *Pension and Health Benefits of American Workers*.

[11] See *Pension and Health Benefits of American Workers*.

[12] For more information, see *Retirement Benefits of American Workers: New Findings from the September 1994 Current Population Survey*, Department of Labor, Pension and Welfare Benefits Administration, 1995.

[13] For more information, see A. Ando and F. Modigliani, "The 'Life Cycle' Hypothesis of Savings: Aggregate Implications and Tests," *American Economic Review*, Volume 53, March 1963, pp. 55-84.

[14] See Kennickell, Starr-McCluer and Sunden, "Family Finances in the U.S."

[15] See Yakoboski and Schiffenbauer, "The Reality of Retirement Today," p. 4.

[16] See Yakoboski and Schiffenbauer, "The Reality of Retirement Today," p. 7.

[17] See *1995 Retirement Confidence Survey*.

[18] See *1995 Retirement Confidence Survey*.

[19] See *1995 Retirement Confidence Survey*.

[20] For more information, see B. R. Hertel, "Minimizing Error Variance Introduced by Missing Data Routines in Survey Analysis," *Sociological Methods and Research*, Volume 4, 1976, pp. 459-475.

[21] For more information on logistic regression, see G.S. Maddala, *Introduction to Econometrics*. New York: MacMillan Publishing Company, 1992.

[22] For more information, see Nancy A. Jianakoplos and Alexandra Bernasek, "Are Women More Risk Averse?" *Working Papers in Economics and Political Economy*, Department of Economics, Colorado State University, March 1996.