

PLANNED AGE OF RETIREMENT AND ACTUAL AGE OF RETIREMENT

Martha N. Ozawa, and Yeong Hum Yeo

[Abstract]

This study investigated why the age that the respondents planned to retire and the age that they actually retired differ. Using the data from the RAND Health and Retirement Study (HRS) Waves 1 (1992) through 8 (2006), we analyzed 5,727 respondents who were working and aged 51 to 61 at Wave 1. By the end of wave 8, 80.61% were retired. We found that 59.28% of respondents retired before reaching their planned retirement age for one reason or another. On the basis of our findings, we argue against the traditional assumption that many workers are *choosing* to claim early retirement. Instead, we argue that many workers are *compelled* to retire early despite actuarial reductions. With regard to wider policy issues, we also argue that social security preserves the vital part of the safety net and should not be privatized.

[Keywords]

Aging, demography, planned age of retirement, actual age of retirement, non-working spouse.

INTRODUCTION

The major problem confronting the financing of social security is demographic shifts: the increase in the life expectancy of the population and the increase in covered workers who retire earlier than the normal retirement age. Life expectancy at birth is projected to increase from 81.0 years in 2010 to 85.9 years in 2080 for men and 84.9 years to 88.9 years in 2080 for women. Life expectancy at age 65 is projected to increase from 17.4 years to 21.2 years for men and from 19.9 years to 23.6 years for women (Board of Trustees, 2006, Table V.A4., p. 82). Governmental data indicate that the proportion of those who retired before age 65 increased from 58% in 1980 to 75% in 2004 for men and 70% in 1980 to 78% in 2004 for women (Social Security Administration, 1981, 2005).

It is projected that the old dependency ratio, meaning the ratio of the number of retirement-age people to the number of working-age people, will increase from .209 in 2010 to .380 in 2050 and to .421 in 2080 (Board of Trustees, 2006, Table V.A2, p. 78). Thus, if this country wants to maintain a certain replacement rate (monthly benefits as a percentage of prior monthly earnings), then the tax rate will go up accordingly.

A way to view the demographic changes is to determine the social security (OASDI) beneficiaries

as a percentage of the total population; it is projected that this percentage will increase from 17% in 2010 to 24.6% in 2050 and to 26% in 2080 (Board of Trustees, 2006, Tables V.A2., V.C4., and V.C6., pp. 78, 112 and 119). As these facts indicate, one key to dealing with the funding of the social security program is to lower the number of beneficiaries by minimizing the number of aged people who become beneficiaries, that is, to keep them in the labor force and encourage them not to retire and claim social security benefits.

In spite of the enormous demographic changes and of governmental legislative initiatives to encourage workers to stay in the labor force, American workers tend to retire earlier than the normal retirement age (see Compson, 2008). As we mentioned earlier, as of 2004, 70% of men and 77% of women claimed actuarially reduced Old-Age Insurance benefits because of early retirement (Social Security Administration, 2005). Moreover, the most recent study by the Office of Retirement and Disability reported that low earners were further behind the middle-class earners in earlier times (see Compson, 2008).

Thus, it is instructive to investigate the recent trends in retirement. At which age do people say they will retire? At which age do they actually retire?

REVIEW OF THE LITERATURE

Research on the labor force participation and retirement of elderly people has revolved around four issues: (1) education, (2) health status, (3) work status of the spouse, and (4) net worth.

There is empirical evidence that *education* is strongly related to work among elderly people (Compson, 2008; Haider & Loughran, 2001; Parnes & Sommers, 1994). On the other hand, researchers have viewed the meaning of education differently. Economists have tended to take education as a proxy of the level of wages. But others, such as Haider and Loughran (2001) and Parnes and Sommers (1994), have treated education as an indication of one's ability to adapt to old age by, for example, choosing to work part time and to work in different types of jobs.

Health status is considered a decisive factor that determines whether elderly people can continue to work or retire. Blau (1994) reported that good health is the key determinant of whether men remain in full-time employment continuously. Szinovacz, DeViney, and Davey (2001) noted that health, in general, and disability, in particular, are strong predictors of elderly people's decision to stay in the labor force. Other researchers have also found health to be a strong predictor variable (Bound, Schoenbaum, & Waidmann, 1995; Burr, Massagli, Mutchler, & Pienta, 1996; Hayward, Friedman, & Chen, 1998; Pienta, 1999; Pienta, Burr, & Mutchler, 1994; Santiago & Muschkin, 1996). Furthermore, Haider and Loughran (2001) and Parnes and Sommers (1994) reported that as workers became older, health-related variables became more significant.

Researchers have found that *having a working spouse* becomes stronger and economic variables become weaker determinants of work, making a working spouse a strong predictive variable for elderly people to keep working (Hayward et al., 1998; Szinovacz et al., 2001). An in-depth study of the work behavior of men aged 70 and older (Ozawa & Lum, 2005) found that having a working spouse was

consistently and significantly related to the probability of these men working (see also, Gower, 1998). It is not known why the work status of a spouse has such a strong impact. Some reasons may be economic, whereas others may be related to quality-of-life issues.

It is generally known that *economic status* (measured as income and/or net worth) affects work among the elderly, but the ways in which income and/or wealth affect work status have not been determined. Economists generally theorize that both incomes and net worth create an “income effect” on work. Persons with high income and/or net worth can afford to stay at home because, at least, economically they do not need to work. Elderly people seem not to behave according to such an economic theory, however. For example, Haider and Loughran (2001), using both cross-sectional and longitudinal data, found that those who work at age 70 and beyond can be characterized as being the wealthiest, in addition to being the healthiest and the most educated (see also, Fippen & Tienda, 2000). Findings by Ozawa and Lum (2005) support the positive relationship between net worth and work among men aged 70 and older. Beck (1985) also found a positive relationship between assets and participation in the labor force. All these findings are contrary to the economic theory of income effects. Dwyer and Mitchell (1998) reported that net worth was positively related to working, but that the degree of such an effect was small; that is, a \$100,000 increase in net worth resulted in the postponement of retirement by only 14 days. With regard to income, Ozawa and Kim (n.d.) found that non-work-related income (which they defined as income excluding the respondents’ earnings and social security and other retirement benefits) was positively related to work among those aged 51 to 61--a finding that was opposite of what the theory of the income effect suggests.

The fact that elderly persons do not necessarily behave according to an economic theory supports the idea that increasingly the elderly are behaving on the basis of intangible reasons. Researchers have identified several noneconomic determinants of work. A study by Parnes and Sommers (1994), on work among men in their 70s and 80s, indicated that a strong psychological commitment to work was a consistently strong determinant of work among these men. Parnes and Sommers reasoned that these men worked for “self-fulfillment.”

In our study, we posited that the age at which the respondent planned to retire and the age at which the respondent actually retired were affected by marital status, health status, disability status, health insurance coverage, occupation, and economic background (measured by net worth), in addition to demographic variables.

Montalto, Yuh, and Hanna (2000) reported that the *planned* time of retirement was a function of education, health status, work status of the spouse, and net worth. But their study was different from ours in its basic design. In our study, *planned* time of retirement was stated in 1992 (the time of Wave 1). In their study, because education, health status, accumulation of net worth, and work status of the spouse generally happened before the respondents ceased working full time, the subsequent retirement had to be planned by the respondents. In our study, the respondents stated explicitly so. Moreover, Loughran et al.’s study did not deal with generational changes in cultural mores in retirement, although some independent variables went back to age 30.

METHODOLOGY

Date and Sample

For our study, we used the data from the RAND Health and Retirement Study (HRS), Waves 1 (1992) through 8 (2006). We selected respondents who were aged 51 to 61 at Wave 1 and were working at that time (N = 7,126). To test which variables were significant, we conducted the ordinary least-squares (OLS) analyses by including non-Hispanic whites, non-Hispanic blacks, and Hispanics (Hispanics may be any race). We excluded those who did not belong to the race/ethnicity variables we defined. We also eliminated the case where any independent variable was missing. Thus, the final sample size was 5,727 respondents. The respondents' planned ages of retirement were retrieved from Wave 1, and the data regarding their actual age of retirement were retrieved from one wave before the actual age of retirement, excluding those who did not retire by the end of Wave 8. That is, 1,601 respondents were not retired by the end of Wave 8.

Dependent Variables

In this study, we explored the planned age of retirement and the actual age of retirement. Retirement was self-reported retirement; it might include earned income. As of 1992 (Wave 1) all the respondents had some degree of earned income. We used OLS regression models for finding the significant predictors of planned retirement age (in years) and of actual retirement age (in years). The concept of retirement differs. Menalto et al. (2000) used any retreat from full-time work (35 hours a week or more) in their study (also see, Diamond & Hausman, 1984; Gustman, Mitchell & Steinmeier, 1995; Sickles & Taubman, 1986).

Independent Variables

For the OLS regression of planned retirement age, the independent variables were measured at Wave 1. For the regression of actual retirement age, the independent variables were measured one wave before retirement to maintain the direction of causality.

Age. The age (in years) of the respondents was collected in Wave 1 and used again as continuous, baseline data at one wave before the wave of actual age of retirement. This was done to correct for age-related biases in the selection of age of respondents (see Gillespie & Streeter, 1994; Montalto et al., 2000).

Gender. Females were assigned to the reference group.

Race-ethnicity. To formulate this variable, we used two variables: First, we identified Hispanics, and, second, we divided the sample by race. Thus, we identified non-Hispanic whites, non-Hispanic blacks, and Hispanics (Hispanics could be white or black). Other race-ethnicity groups were excluded.

Education. The respondents' levels of education were collected in Wave 1. We dummy coded high school graduate or GED recipients, and some college or more, assigning less than a high school graduate as the reference group.

Marital status and spouse working. For the OLS regressions, we dummy coded married with a non-

working spouse, and nonmarried, assigning married with a working spouse to the reference group.

Health status. For the OLS regression analyses for planned retirement age and actual retirement age, we dummy coded health status as very good/good or fair/poor, assigning excellent to the reference group.

Disability status. Disability status was defined as having at least one problem in activities of daily living (ADL) or in instrumental activities of daily living (IADL). This variable was dummy coded by assigning nondisabled to the reference group.

Health insurance coverage. This variable was defined as being covered by employer-supported health insurance coverage, Medicare or Medicaid, or self-finance. We dummy coded such types of coverage, assigning no coverage to the reference group.

Occupation. We divided the respondents into two groups: those who held managerial or professional or technical jobs, and those who held other jobs, who were assigned to the reference group.

Net worth. Net worth was defined as the sum of total wealth (real estate, vehicles, business, individual retirement accounts, Keogh accounts, stocks, funds, checking accounts, saving accounts, certificates of deposit, bonds, and all other savings) less the sum of debts (mortgages, home loans and other debts). Net worth could be expressed as a multiple of poverty-line income (Radner, 1993), which we used. The relationship between income-to-needs ratios incorporating the economy of scale is as follows: 1.00 for one-person household, 1.28 for two-persons household, 1.57 for three-persons household, 2.01 for four-persons household, 2.37 for five-persons household, 2.68 for six-persons household, 3.04 for seven-persons household, 3.41 for eight-persons household, and 4.03 for nine-persons household (U.S House of Representatives, Committee on Ways and Means, 1993, p.1404).

Income was excluded from the OLS regression model because income has endogenous relationships with many other independent variables.

As mentioned before, we collected information about the planned retirement age from the Wave 1 of the Rand HRS data and the actual retirement age through Wave 8 of the Rand HRS data. We conducted OLS regressions to examine the predictors of planned retirement age and actual retirement age.

FINDINGS

Characteristics of the Respondents

Table 1 shows the major characteristics of the respondents at Wave 1 (1992). About 48.82% of the respondents were male; 83.22% were white, 11.00% were black, and 5.78% were Hispanic; 51.85% were married and had working spouses; 40.27% had at least some college education; 61.32 % had very good or good health; 36.97% had at least one problem related to ADL or IADL; 63.14% had some form of health care insurance coverage; and 29.18% had managerial, professional, or technical jobs. The mean age was 55.32 (2.80), and the mean adjusted net worth as a multiple of poverty-line income was 22.14 (41.70). The numbers in parentheses are standard deviations.

Table 1. Characteristics of the Respondents

| Variables at Wave 1 (year=1992) | All Respondents (<i>N</i> = 5,727) |
|---------------------------------------------------------|----------------------------------------|
| | <i>Percentage</i> |
| Gender | |
| Male | 48.82 |
| Female | 51.18 |
| Race-Ethnicity | |
| White | 83.22 |
| Black | 11.00 |
| Hispanic | 5.78 |
| Marital status/spouse working | |
| Married/partnered with a working spouse | 51.85 |
| Married/partnered with a nonworking spouse | 24.27 |
| Singled (divorced/separated/widowed/non-married) | 23.87 |
| Education | |
| Less than high school | 19.62 |
| High school graduate/GED | 40.11 |
| Some college and more | 40.27 |
| Self-Reported Health | |
| Excellent | 25.22 |
| Very good/good | 61.32 |
| Fair/poor | 13.46 |
| ADL/IADL related disability | |
| Yes | 36.97 |
| No | 63.03 |
| Medical insurance coverage | |
| Yes | 63.14 |
| No | 36.86 |
| Occupation | |
| Managerial, professional, or technical | 29.18 |
| Others | 70.82 |
| | Mean (S.D.) |
| Age | 55.32 (2.80) |
| Adjusted Net Worth as a Multiple of Poverty-Line Income | 22.14 (41.70) |

Note: We used the weight variable that was developed by the HRS to adjust for the sampling, poststratification, and nonresponse biases in the HRS data file.

Descriptive Statistics on Retirement

Table 2 indicates that for all the respondents, there was a 1.13-year difference between the planned retirement age and the actual retirement age. That is, the respondents planned to retire at 63.00 (3.22) years old, but actually retired at 61.87 (3.68) years old. The numbers in parentheses are standard deviations.

We cannot compare the planned age of all the respondents with the actual age of the respondents who were retired before Wave 8. To be accurate, the planned age and the actual age of retirement should be compared among those who retired before Wave 8.

Table 2. Age of Planned Retirement and Actual Retirement

| Retirement Age | All Respondents |
|----------------------------------|-----------------|
| Mean age of planned retirement | 63.00 (3.22) |
| Mean age of planned retirement | 62.77 (3.10) |
| % Retired by Wave 8 (year=2006) | 80.61 |
| Mean age of actual retirement | 61.87 (3.68) |
| % Retired before the planned age | 59.28 |
| % Retired on the planned age | 9.34 |
| % Retired after the planned age | 31.38 |

Note: Among those who retired by Wave 8. (That is, 1,601 respondents were not retired.)

OLS Regression Analysis: Planned Age of Retirement

As we posited, the difference between the planned age and actual age of retirement is also a function of education, marital status in conjunction with the economic roles of spouses, self-reported health condition, ADL/IADL-related disability, occupation, health insurance coverage, net worth, age, gender, and race/ethnicity.

Table 3 indicates the regression results of the planned age of retirement. The planned age of retirement was positively related to education ($p < .001$). Specifically, those who had a college or more education had a higher planned age of retirement, compared with the reference group ($p > .001$). Those who had a large multiple of poverty-line income as net worth tended to have a lower planned age of retirement. As for the demographic variables, men were more likely than women to have a higher planned age of retirement ($p < .001$). Compared with the white respondents, the black respondents were more likely to have a lower planned age ($p < .001$). Age was positively related to the planned age ($p < .001$; see Gillespie, & Streeter, 1994). Being single was positively related to the planned age ($p < .05$).

As is shown in Table 3, the OLS regression analysis was conducted for the respondents who retired by Wave 8, but excluded 1,601 respondents, who did not retire by Wave 8.

Table 3. OLS Regression Analysis on Planned Ages of Retirement

| Variables | Planned Age | |
|-----------------------------------------------------------|------------------------------|---------------|
| | Estimate | SE |
| Intercept | 51.383*** | 0.891 |
| Age | 0.233*** | 0.016 |
| Race/Ethnicity (White) | | |
| Black | -0.626*** | 0.146 |
| Hispanic | 0.078 | 0.191 |
| Male | 0.426*** | 0.106 |
| Education | | |
| Less than high school (High school graduate/GED) | 0.016 | 0.142 |
| Some college and more | 0.547*** | 0.126 |
| Marital status/spouse working (Married/working spouse) | | |
| Married/nonworking spouse | -0.101 | 0.125 |
| Single | 0.324* | 0.131 |
| Health | | |
| (Excellent) | | |
| Very good/good | -0.360** | 0.123 |
| Fair/poor | -0.806*** | 0.179 |
| Disability, ADL/IADL related | -0.195 | 0.109 |
| Insurance coverage | -0.542*** | 0.111 |
| Managerial/professional/technical jobs | 0.003 | 0.131 |
| Adjusted Net Worth (Log) | -0.371*** | 0.049 |
| | <i>F (d.f.)</i> | 23.32*** (14) |
| | <i>R² / -2DLL</i> | 0.062 |
| | <i>N</i> | 4,981 |

* $p < .05$, ** $p < .01$, *** $p < .001$.

OLS Regression Analysis: Actual Age of Retirement

Table 4 presents the regression results for the actual age of retirement. The set of variables that were related to the actual age of retirement were quite different from those for the planned age of retirement. The respondents with poor self-reported health were more likely to have a *higher* actual age of retirement ($p < .001$ and $p < .01$) because self-reported health was retrieved one wave before actual retirement (as the respondents got older, they were more likely to have poor health). Disability caused by ADL/IADL problems consistently lowered the actual age of retirement ($p < .001$). Net worth had substitution effects on the actual age of retirement ($p < .01$). That is, net worth had a positive relationship with actual age of retirement. Health insurance coverage was positively related to the actual age of retirement ($p < .01$). Male respondents were less likely to have a higher actual age of retirement ($p < .05$). Note that those who had a college or more education had a lower actual age of retirement, compared with the reference group ($p > .01$). As we stated earlier, age was included, in part, because we needed to minimize the selection biases due to age (see Gillespie & Streeter, 1994; Montalto et al., 2000). Marriage to a nonworking spouse affected the respondents' actual age of retirement positively ($p < .05$), as did being single ($p < .001$).

Table 4. OLS Regression Analysis on Actual Ages of Retirement

| Variables | Actual Age | |
|----------------------------------------|-------------------|---------------|
| | Estimate | SE |
| Intercept | 9.931*** | 1.159 |
| Age | 0.538*** | 0.020 |
| Race/Ethnicity | | |
| (White) | | |
| Black | -0.189 | 0.189 |
| Hispanic | 0.959*** | 0.261 |
| Male | -0.300* | 0.133 |
| Education | | |
| Less than high school | 0.072 | 0.183 |
| (High school graduate/GED) | | |
| Some college and more | -0.138** | 0.159 |
| Marital status/spouse working | | |
| (Married/working spouse) | | |
| Married/nonworking spouse | 0.370* | 0.155 |
| Single | 0.637*** | 0.164 |
| Health | | |
| (Excellent) | | |
| Very good/good | 0.974*** | 0.181 |
| Fair/poor | 0.666** | 0.226 |
| Disability, ADL/IADL related | -2.318*** | 0.165 |
| Insurance coverage | 1.337*** | 0.143 |
| Managerial/professional/technical jobs | 0.048 | 0.164 |
| Adjusted Net Worth (Log) | 0.177** | 0.060 |
| | <i>F (d.f.)</i> | 79.53*** (14) |
| | <i>R2 / -2DLL</i> | 0.258 |
| | <i>N</i> | 3,224 |

* $p < .05$, ** $p < .01$, *** $p < .001$.

In summary, an ADL- or IADL-related disability and self-reports of the respondents' health conditions, contributed to the respondents' actual age of retirement. A higher level of education, those who had a college or more education had a higher planned age of retirement, compared with the reference group ($p > .001$) strongly increased the planned age of retirement. This variable (some college education or more) was still significant in actual age of retirement, but in the opposite direction. Unlike earlier studies (Ozawa & Lum, 2005; Parnes & Sommers, 1994), in which the major focus was those aged 70 and older, the role of the spouse was different. In this study, marriage to a nonworking spouse was a contributing factor to the actual age of retirement. In the studies whose major focus was on those aged 70 and older, having a spouse who worked was a major facilitating factor in not retiring in old age. Another major difference was that in Ozawa and Lum's study, those who worked were only 13% of the elderly, and the sample consisted of only men. Therefore, one needs to interpret the comparison with caution.

IMPLICATIONS AND CONCLUSION

As we mentioned, the presence of an ADL- or IADL-related disability is a contributing factor to the actual age of retirement. Since the sample was drawn from those who were all working at Wave 1 and were aged 51 to 61 at the time, we can guess that such disabilities developed later. If so, a public policy intervention is needed, so that health care coverage is available universally. Many Americans have no access to basic health care coverage until they become age 65 and are eligible for Medicare (Dwyer & Mitchell, 1999).

Second, the respondents tended to be married to nonworking spouses. If such spouses are not physically disabled, can't they be trained for a job? Further studies are called for.

Third, becoming unmarried can include the situation of losing a husband. After the death of a husband, the widow's net worth decreased as much as 27% according to a study by Ozawa and Hur (n.d.). At any rate, being nonmarried is financially difficult and hence may increase the actual age of retirement (see, for example, Pienta et al., 1994). Ozawa and Hur's findings indicate that the lack of a health care policy and work that results in retirement before the planned age go hand in hand. According to a government study, 18.1%, or 26.8 million, of nonaged adults were uninsured for entire 2007 (U.S. Census Bureau, 2008, p. 24). Until health policy and income security are better coordinated, the current safety net in social security needs to be preserved. The pursuit of more privatization will make the income distribution more unequal.

Public policy initiatives should be geared toward developing effective programs for retraining the elderly. So far, the common wisdom is that some American workers are choosing to retire early, but the truth is that some workers are *compelled* to retire earlier than planned in this increasingly technological and aging society (see U.S. General Accounting Office, 2003).

A recent study by the Center for Retirement Research considered state characteristics, individual characteristics, and, both state and individual characteristics and concluded that interventions were more powerful if individual characteristics were chosen (see Munnell, Soto, Triest, & Zhivan, 2008). Our study used only individual characteristics and, thus, has a limitation, but it will still be an effective guide for future policy interventions.

References

- Beck, S. H. (1985). Determinants of labor force activity among retired men. *Research on Aging*, 7(2), 251-280.
- Blau, D. (1994). Labor force dynamics of older men. *Econometrica*, 62(1), 117-156.
- Board of Trustees, Old-Age and Survivors Insurance and Disability Insurance Trust Funds. (2006). *2006 annual report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds*. Washington, DC: U.S. Government Printing Office.
- Bound, J., Schoenbaum, M., & Waidmann, T. (1995). Race and education differences in disability status and labor force attachment in the health and retirement survey. *Journal of Human Resources*, 30, S227-S267.
- Burr, J. A., Massagli, M. P., Mutchler, J. E., Pienta, A. M. (1996). Labor force transitions among older African-American and white men. *Social Forces*, 74, 963-982.

- Compson, M. (2008). *Estimating the first instance of substantive-covered earnings in the labor market*. Research and Statistics Note No. 2008-04. Washington, DC: U.S. Census Bureau.
- Diamond, F. A., & Hausman. (1984). Individual retirement and savings behavior. *Journal of Public Economics*, 23(1/2), 81-114.
- Dwyer, D. S., & Mitchell, O. S. (1998). Health problems as determinants of retirement: Are self-rated measures endogenous? (Working Paper No. 6503). Cambridge, MA: National Bureau of Economic Research.
- Dwyer, D. S., & Mitchell, O. S. (1999). Health problems as determinants of retirement: Are self-rated measures endogenous? *Journal of Health Economics*, 18(2), 173-193.
- Fippen, C., & Tienda, M. (2000). Pathways to retirement patterns of labor force participation and labor market exit among the pre-retirement population by race, Hispanic origin, and sex. *Journal of Gerontology: Social Sciences*, 55(1), S14-S27.
- Gillespie, D. F., & Streeter, C. L. (1994). Fitting regression models to research questions for analyzing change in non-experimental research. *Social Work Research*, 18(4), 239-244.
- Gower, D. (1998). Retirement patterns of working couples. *Perspectives on Labour and Income*, 10(3), 27-30.
- Gustman, A. L., Mitchell, O. S., & Steinmeier, T. L. (1995). Retirement research using the Health and Retirement Study. *Journal of Human Resources*, 30 (Suppl.), S57-S83.
- Haider, S., & Loughran, D. (2001). *Elderly labor supply: Work or play?* Boston: Center for Retirement Research, Boston College.
- Hayward, M. D., Friedman, S., & Chen, H. (1998). Career trajectories and older men's retirement. *Journal of Gerontology: Social Sciences*, 53(2), S91-S103.
- Montalto, C. P., Yuh, Y., & Hanna, S. (2000). Determinants of planned retirement age. *Financial Services Review*, 9(1), 1-15.
- Munnell, A. H., Soto, M., Triest, R. K., & Zhivan, N. A. (2008). *Do state economics or individual characteristics determine whether older men work?* Boston: Center for Retirement Research, Boston College.
- Ozawa, M. N. & Hur, J. (n.d.) The effects of widowhood on and implications of the change in net worth. Unpublished manuscript, George Warren Brown School of Social Work, Washington University, St. Louis, MO.
- Ozawa, M. N., & Kim, H. J. (n.d.). Impact of health, wages, and education on premature retirement among men. Unpublished manuscript, George Warren Brown School of Social Work, Washington University, St. Louis, MO.
- Ozawa, M. N., & Lum, T. (2005). Men who work at age 70 or older. *Journal of Gerontological Social Work*, 45(4), 41-63.
- Parnes, H. S., & Sommers, D. G. (1994). Shunning retirement: Work experiences of men in their seventies and early eighties. *Journal of Gerontology: Social Sciences*, 49, S117-S124.
- Pienta, A. M. (1999). Early childbearing patterns and women's labor force behavior in later life. *Journal of Women & Aging*, 11(1), 69-83.
- Pienta, A. M., Burr, J. A., & Mutchler, J. E. (1994). Women's labor force participation in later life: The effects of early work and family experiences. *Journal of Gerontology: Social Sciences*, 49(5), S231-S239.
- Radner, D. B. (1993). Economic well-being of the old old: Family unit income and household wealth. *Social Security Bulletin*, 56(1), 3-19.
- Santiago, A. M., & Muschkin, C. G. (1996). Disentangling the effect of disability status and gender on the labor supply of Anglo, black, and Latino older workers. *The Gerontologist*, 36, 299-310.
- Sickles, R. C., & Taubman, P. (1986). An analysis of the health and retirement status of the elderly. *Econometrica*, 54, 1339-1356.
- Social Security Administration. (1981). *Annual statistical supplement, 1981, to the Social Security Bulletin*. Wash-

ington, DC, Author.

Social Security Administration. (2005). *Annual statistical supplement, 2005, to the Social Security Bulletin*. Washington, DC: Author

Szinovacz, M. E., DeViney, S., Davey, A. (2001). Influences of family obligations and relationships on retirement: Variations by gender, race, and marital status. *Journal of Gerontology: Social Sciences*, 56B(1), S20-S27.

U.S. Census Bureau. (2008). *Income, poverty, and health insurance coverage in the United States: 2007*. Washington, DC: Author.

U.S. General Accounting Office. (2003, February). *Older workers: Policies of other nations to increase labor force participation* (GAO-03-307). Washington, DC: Author.

U.S. House of Representatives, Committee on Ways and Means. (1993). *1993 Green book: Overview of entitlement programs*. Washington, DC: U.S. Government Printing Office.