RETIREMENT AND SOCIAL SECURITY: A TIME SERIES APPROACH

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Traditional analyses of retirement decisions focus on the age, from birth, of the individual making choices about how much to work, consume, and save for old age. However, remaining life expectancy is arguably a better way of examining these issues. As mortality rates decline, people at a given age now have more remaining years of life expectancy than they did in the past. If participation rates at older ages remain constant (or decline), then average time spent in retirement will increase. Additionally, because health status and mortality are correlated, adults with more expected years of life are generally in better health (and better able to work) than those with fewer years of remaining life.

This paper examines labor force participation rates of older workers considering both chronological age and remaining life expectancy. Data come from the 1940, 1950, and 1960 decennial censuses and the 1965 to 2007 March Current Population Surveys. Remaining life expectancy is estimated from life tables included in the 2008 Social Security Trustees Report.

Descriptive results show that male labor force participation rates at age 60, 62, and 65 declined during the 1960s, 1970s, and 1980s, leveled off during the 1990s, and increased after 1995 or so. However, participation rates for men with a given remaining life expectancy have not increased over the past 10 years. Instead, they have remained roughly constant. For example, the labor force participation rate for men with 19.5 years of remaining life expectancy, who are now about age 62, was about 55 percent in 2007.

Participation rates for older women have increased steadily since the mid-1960s when measured in terms of age. When measured in terms of remaining years of life expectancy, however, the increase is much less dramatic, particularly for women with about 22 years of life expectancy or less. For example, among women with 22.1 years of life expectancy (about age 62 today), the share participating in the labor force ranged from 40 to 45 percent between 1965 and 2007.

These findings are confirmed by results from multivariate logit models of labor force participation that include controls for birth cohort, education, marital status, unemployment rate, the share of adults in the population who are disabled, and the share who are ages 20 to 29. For men, controlling for either age or remaining life expectancy, earlier cohorts work more, and later cohorts work less. For women, using the same controls, the opposite is true as more women are working in later cohorts. Cohort effects become stronger when we include a full set of regressors for men; however, they get dramatically weaker for women. This suggests that more of the change in labor force participation across cohorts for women can be explained by changing education and business cycle effects (unemployment) than is true for men over this period.

For both men and women, age has a large negative impact on participation, and the effects are larger at older ages. People with greater remaining life expectancy work with higher probability than those with lower remaining life expectancy, but these effects decline for larger values of remaining life expectancy.

In all specifications of the model, either by age or by remaining life expectancy, the dummy variables indicating age 62 and age 65 have strong, negative effects on labor force participation. This is true even though the models by age include a quadratic term in age to capture the acceleration in labor force participation declines by age. These results suggest that there are strong negative effects on working that result from the early retirement age and the normal retirement age under Social Security and from the Medicare eligibility age (currently 65). We cannot distinguish in this research between what may be the economic effect of getting retirement benefits under the program and the signal effect on retirees that somehow they 'should be' retiring at these ages. Our suspicion, however, is that it is a combination of these effects coming through in the data.

Greater education is associated with higher levels of labor force participation for men and women under all specifications. Participation for all older workers declines in periods with greater unemployment, and their participation is negatively related to the share of the population that is aged 20 to 29. Interestingly, during years of greater numbers of disabled workers collecting Social Security disability benefits, participation for older workers increases under all specifications *except* those that control for male remaining life expectancy.

In part, our results confirm what other research has shown, suggesting that labor force participation at older ages is on the rise after roughly 1995 despite the fact that, at least for men, the trend has been strongly negative prior to the 1990s. However, there is no such increase in participation by remaining life expectancy. Participation appears to have flattened out by remaining life expectancy. This raises the question of whether this is because workers plan for a certain number of years of retirement or because the disutility of work has decreased over time as the US economy has been transformed from a manufacturing economy to a service economy. We also find that whether we specify the empirical model by age or by remaining life expectancy, the ages 62 and 65 both have strong negative effects on participation, confirming the enormous role Social Security plays in labor supply decisions of older workers. Further research is needed on the question of whether the age 62 and age 65 effects are due to the financial incentives under Social Security or to a signaling effect of those ages under the program.

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