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## HOW MUCH DO HOUSEHOLDS REALLY LOSE BY CLAIMING SOCIAL SECURITY AT AGE 62?

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Individuals can claim Social Security retired worker benefits at any age from 62 to 70. Although there is no requirement that benefits be claimed immediately on retirement, most individuals claim benefits within one year of attaining age 62. Individuals who delay claiming receive increases in benefits that are, on average, approximately actuarially fair. Spouses of retired workers can claim a spousal benefit, if that exceeds their own retired worker benefit, provided they have turned 62 and their spouse has claimed retired worker benefit. Spousal benefit is actuarially reduced if claimed before age 62. The benefit does not increase if claiming is delayed beyond the Full Retirement Age, currently 66. Spouses of retired workers also qualify for survivor benefit. This generally equals 100 percent of the retired worker's benefits, so an individual who delays claiming his retired worker benefit also increases his spouse's survivor benefit

Previous research has shown that, for a household with population average mortality, the money's worth of the total of the above benefits (the income streams discounted by an interest rate and annual survival probabilities) is maximized if the husband delays claiming until after his Full Retirement Age. But the losses associated with early claiming are generally small.

This previous research fails to take account of the longevity insurance provided by Social Security. An individual who postpones claiming Social Security benefits is in effect making an annuity purchase. He can be thought of as returning this year's checks to the Social Security Administration in exchange for an increase in Social Security benefits.

Using numerical optimization techniques, we calculate the optimal ages at which married couples should claim Social Security benefits. We also calculate Social Security Equivalent Income, the factor by which the benefits to which a household is entitled at some sub-optimal combination of claim ages must be multiplied so that it is as well-off in expected utility terms as it would be if it claimed at the optimal combination of ages.

We endow the household with an amount of unannuitized financial assets. Each period, the husband decides whether to claim retired worker benefit. Each period, a wife who is entitled to retired worker benefit by reason of her own contributions decides whether to claim that benefit. If her husband has claimed ben-

efits, she also decides whether to claim spousal benefit. If the wife's spousal benefit exceeds her retired worker benefit, her benefit is automatically increased when her husband claims. Each period, the household also decides what percentage of its financial wealth to consume.

We calculate the optimal combination of claim ages for a variety of households – single and two earner couples, those who are the same age, and those where the wife is up to six years younger than the husband. We also consider how the optimal claiming age and the costs of early claiming differ if the household's life expectancy differs from the population average. Finally, we consider how optimal strategies are affected if the household has a high rate of time preference.

Our base case is a single earner couple, both the same age, born in 1946, with population average mortality. When the household's objective is simply to maximize the expected present value of benefits, the optimal claiming ages are 66 for both husband and wife. If they both claimed at age 62, Social Security Equivalent Income is 1.027. To illustrate, suppose that the husband's Primary Insurance Amount (the monthly benefits payable at his Full Retirement Age of 66) is \$1,000. If the couple claims at age 66, they are entitled to a retired worker benefit of \$1,000, and a spousal benefit of \$500, a total of \$1,500. If they claim at age 62, they receive \$750 plus \$350, a total of \$1,100, but would require \$1,130 (\$1,100 times 1.027), an additional \$30 a month, to be as well-off in expected present value terms. In contrast, if we incorporate the value of the additional longevity insurance acquired as a result of delay, assuming that the household has constant relative risk aversion with a coefficient of risk aversion of five, the optimal claim age increases by two years to 68, for both husband and wife. Social Security Equivalent Income increases to 1.111, and a household claiming at age 62 would require an additional \$122 a month to be as well-off. The expected present value calculation substantially understates the costs of early claiming.

If the husband is older than the wife, it becomes optimal for the husband in a single earner couple to delay claiming until older ages, and the cost of claiming at age 62 becomes even greater. If the husband is four years older than the wife, the optimal strategy is for the husband to claim at 70 and the wife at 66, and age 62 Social Security Equivalent Income increases to 1.170.

At the same assumed coefficient of risk aversion, the husband in a two-earner couple should delay until age 70. Although impatient households should claim earlier, the effect of plausible variations in the rate of time preference is extremely small. Plausible variations in subjective mortality beliefs have a negligible effect. For example, couples with the average mortality rate of blacks with less than a high school education and whites with four years' college should both claim at the same age of 68, while the difference in age 62 Social Security Equivalent Income is only 0.017.

We analyze Health and Retirement Study wealth data and show that although some households have no choice other than to claim benefit immediately on retirement, many could afford to delay, often for substantial periods. The fact that they choose not to is another manifestation of the so-called "annuity puzzle," the well-documented aversion to annuitization. We consider why households appear to be so reluctant to exchange financial wealth for Social Security wealth, and consider possible policy responses.

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