Consequences of Not Modeling Income Taxes

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Retirement calculators that ignore progressive personal income taxes on IRA withdrawals and Social Security Benefits are over stating disposable income by 15% or more, or in the case of Monte Carlo methods, the probability of not failing. This is the conclusion to be drawn from Table 1. Table 1 reports a series of experiments for a retirement plan with and without taxes, and with and without Social Security benefits.

All tests were run using the Optimal Retirement Planner at www.i-orp.com.

Table 1: Consequences of Income Taxes

Assumptions:

- A 62 year old retiree with savings of one million dollars and a Social Security primary insurance amount of 23,000.
- The Age 62 initial benefits are $17,250 due to the early filing penalty.
- The Age 70 initial benefits are $30,360 due to the delayed filing incentive.

	Begin Soc Sec Age 70			Begin Soc Sec Age 62			No Social Security		
Scenario	$000	%With	% Diff	$000	%With	% Diff	$000	%With	% Diff
No Tax	69	6.6	15.0	64	5.1	16.4	51	5.1	15.5
Taxed	60	7.2		55	5.1		45	5.1	

Discussion:

- The columns labeled as $*000* contains the after-tax, disposable income for the first year of retirement in thousands of dollars.
- The column labeled *%With* is the initial withdrawal rate, i.e. withdrawals in the first year of retirement divided by the initial account balance, one million dollars.
- The column labeled *% Diff* is the ratio of the difference between the untaxed and taxed initial disposable incomes to the taxed initial disposable income. This is the relative overstatement of income when taxes are omitted.

The *%With* values for the case of beginning *Social Security benefits at age 70* are higher than the others because the absence of benefits during the first eight years of retirement requires that savings withdrawals fund living expenses. Withdrawals are twice what they will be after benefits begin at age 70. At age 70 the withdrawal rate drops from 7.2% to 6.6%, using the age 70 savings withdrawal ($49,000) divided by the age 70 account balance ($737,000).

For the other scenarios the savings distributions are identical. Variations in the plans are due to taxes and the maximized disposable income.

For the *Taxed/no Social Security* scenario income is at the $45,000 and but the withdrawal rate is 5.1%. This is because of $6,000 in taxes paid out of withdrawals.