



Understanding Your Social Security

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ABSTRACT

In this poster, author is engaging into helping audience to understand following questions:

- What is social security retirement benefit, spousal benefit, and survival benefit?
- When/how to claim social security benefit to gain maximum benefit?
- How much are your benefits in a financing point of view and how important your life expectancy in decision making?
- Build a calculator to help audiences estimating their optimized combination of benefits.

INTRODUCTION

Social Security reaches almost every family, and at some point will touch the lives of nearly all Americans. Today, about 165 million people work and pay Social Security taxes and about 58 million people receive monthly Social Security benefits. However, when to collecting social security, it is a question that confusing beneficiary. A case study was designed to discuss the relationship between retirement age and corresponding benefits. Time value of money is considered into this case study. Besides of retirement benefit, spousal benefit and survival benefit also should be well considered.

BENEFITS YOU MAY CLAIM:

Retirement Benefit	
Definition	A benefit received from the Department of Social Security (DSS) while people who is eligible reaching the retirement age.
Term	Full Retirement Age (FRA) Primary Insurance Amount (PIA)
Strategy	The later you claim this benefit, the more you get your PIA
Spousal Benefit	
Definition	The benefit people receives based on the living spouse's record.
Term	Dual entitlement, 50% spouse's PIA
Strategy	Choose spousal benefit and switch to your retirement benefit at age 70
Survival Benefit	
Definition	The benefit people receives base on past spouse's record.
Term	Widow's benefit, Dual entitlement
Strategy	Choose spouse's benefit after FRA to get full amount of widow's benefit

SMART STRATEGIES

For people who claim retirement benefit:

- The later your claim, the better benefit you will get
- If you are eligible for benefit and your spouse is filed for benefit, you should better claim spouse benefit other than your own before age 70.
- PIA is no effect on retirement benefit decision, your life expectancy matters.

For people who claim spousal benefit:

- The less PIA people claim spousal benefit will obtain more profit than people who earned more than his spouse.
- Early claim will lead to a reduction from spousal benefit.
- The maxim spousal benefit you can get is 50% of your spouse's PIA.
- Claim spousal PIA, if you can switch to your retirement benefit at age 70. Otherwise, Spousal benefit is your least favorite choice since the huge amount of reduction.

For people who claim survival benefit:

- Survivor's benefits=survivor benefit fraction x full widow's benefit
- Full Widow's Benefit=Max(deceased spouse's monthly benefit amount, 82.5% of deceased spouse's PIA)
- Early claim will lead to a reduction from survival benefit.
- If your spouse past with high benefit/PIA and you are receiving other benefit, switch your benefit to spousal benefit after your FRA.

NET PRESENT VALUE

After claiming your benefit, you probably will receive a fixed monthly payment. However, the same amount actually have different value since the norm of time value of money. For the sake of wise decision making, the total amounts of benefits you received should be calculated into net present value.

$$NPV = \text{initial investment} + \frac{\text{Cash flow Year 1}}{(1+r)^1} + \dots + \frac{\text{Cash flow Year n}}{(1+r)^n}$$

From the formula above, it is obvious that "n" is an very important factors that will affect the NPV exponentially. "n" in this equation is the years you receive benefits till die. In other word, "n" is reflecting your life expectancy. The longer you live, the more benefit you get; the later benefit you claim, the less value it worth for present. Therefore, understanding your life expectancy/mortality, will help you making final decision.

BENEFIT CALCULATOR

Calculator is programmed base on LabVIEW. This calculator will help audience obtains optimized benefit strategy without understanding the complex and elusive terms in publication from Department of Social Security.

Retirement benefit and spousal benefit was considered into this program. Survival benefit and more condition will be added in future. User interface and block diagram of calculator as following:

