

# Maximize Early Social Security Benefits with Leverage©

Eva L. Levine

July, 2016

## A Leverage Strategy

The consensus among advisors regarding social security is that retirees should delay benefits to 70, which would guarantee them additional benefits for the rest of their lives. It is a strategy to reduce longevity as well as inflation risks, as benefits get cost of living adjustment (COLA) due to inflation. Despite the advantage, few retirees have done that. Based on Social Security Administration's records, only 4% of women and 2% of men claimed benefits at 70 in 2013, as opposed to 27% of women and 34% of men who claimed at full retirement age of 65 or 66. [www.crr@bc.edu](http://www.crr@bc.edu), No. 15-8. A recent study found that among those who would claim social security early, 25% indicated that they did not think that they would live long enough to make it worth optimizing benefits. [www.nationwide.com/socialsecurity](http://www.nationwide.com/socialsecurity). Clearly, mortality concerns trump longevity risks in retirees' decision on when to begin social security.

This paper seeks to resolve the dilemma whether to claim social security sooner or later. It proposes a strategy of maximizing social security by claiming early at full retirement age of 66, and leveraging the early benefits from 66 to 69 through various investment vehicles that would result in more benefits than if the retiree had delayed the benefit to 70. The strategy would mitigate both mortality and longevity risks.

## Scope and Assumptions

The proposed strategy is based on three components: the beneficiary population, the benefit amounts for early and deferred social security, and the leverage options. Data for this paper are tabulated on Excel and laid out in Tables 1 – 4. Positive results that support the strategy are marked in blue, and negative results are marked in red. P denotes the year when early and deferred benefits achieve parity, after which deferred benefits would overtake early benefits.

### A. The Beneficiary Population

The strategy requires that a retiree has the ability to elect whether to delay social security either because he is still working, or because he does not otherwise rely on the benefits for living expenses. Accordingly, to test the effectiveness of this strategy, we have focused on 5 beneficiary groups that are in the higher income category with a marginal tax rate of 28%. These beneficiary groups cover the basic social security beneficiary scenarios as follows:

- **Scenario1** covers single retirees, both male and female. Table 1 lays out the test results for this beneficiary group.

- **Scenario 2** covers a couple, each of whom is entitled to the same benefit and is identified as ‘couple with 200% benefit’ in this study. Table 2 shows the test results for this scenario.
- **Scenario 2A** covers the same couple in Scenario 2, but with one spouse dying at life expectancy of 85, as shown in Table 2A.
- **Scenario 3** covers a couple with one spouse claiming social security as spousal benefit, and is identified as a ‘couple with 150% benefit’ or 75% of the benefit for the couple in Scenario 2. Table 3 shows the test results for this scenario.
- **Scenario 3A** covers the same couple in Scenario 3, but with one spouse dying at life expectancy of 85, with test results shown in Table 3A.

## **B. Benefit Amounts**

Social security benefits for each beneficiary are based on the following assumptions.

1. The annual benefit for each individual beneficiary is \$30,000 at age 66, except for the beneficiary who gets only 50% of the full benefit as spousal benefit.
2. The benefit amount is increased by 3% per year as Cost of Living Adjustment (COLA). (SSA estimates that COLA will average 2.7% to 2024, [www.ss.gov/OACT/TRassum.html](http://www.ss.gov/OACT/TRassum.html).)
3. The benefit that starts at 66 is characterized and referred to as ‘early benefit.’
4. The early benefit is compared with benefit deferred to age 70 (‘deferred benefit’), which begins at 32% more than the early benefit accrued since 66.
5. All gross benefits are subject to 28% income tax on 85% of the payment. Benefit amounts after tax are referred to as net benefit.
6. Gross benefits for early and deferred social security are shown on all tabulation tables under column 1, and column 3, respectively.
7. Net benefits for early and deferred social security are shown on all tables under column 2, and column 4, respectively.
8. The difference between the lower net early benefits and the higher deferred net benefits, beginning at age 70, is referred to as ‘70 v 66 net deficit’ under column 5 in all tables.
9. All benefit data are tabulated on an annual, as well as on a cumulative basis for each decade to age 100.
10. For the survivor in Scenario 2A, the benefit amount drops from 200% to 100% after the death of one spouse at 85. For the survivor in Scenario 3A, the benefit amount also drops from 150% to 100% after the death of one spouse at 85.

## C. Leverage Options

This strategy is tested on five investment vehicles as leverage options described below as Options A to E. Retirees can invest the early benefit funds in these options that would result in higher benefits than if the retiree had deferred social security.

1. **Option A** is a regular investment account that participates in the market, which can be either in equity or bond, or a combination of various types of investment. It can be located in a tax-deferred vehicle, such as a low-cost variable annuity account. The early benefit funds from social security can be deposited in this account and be allowed to grow with no tax impact for as long as the retiree desires. An example of a low cost variable annuity is a self-managed account with Jefferson National that charges only a flat monthly fee of \$20. [www.jeffnat.com](http://www.jeffnat.com).

For purposes of this paper, it is assumed that the investment will grow at a rate of 5% per year with no withdrawal. 5% is a relatively conservative growth rate and is within the current expected range of return considered to be reasonable by the financial industry going forward. For example, a recent report from the McKinsey Global Institute in April 2016 estimates that the growth rate for domestic equity may range from 4% to 6.5% in the foreseeable future. [www.McKinsey.com](http://www.McKinsey.com).

5% is used in this article also because the cost of living adjustment (COLA) rate for social security benefits has been projected by the Social Security Administration in its annual Trustee Report for 2016 to be 2.7% from now to 2024, or even later. [www.ss.gov/OACT/TR/TRassum.html](http://www.ss.gov/OACT/TR/TRassum.html) COLA is adopted as a stand-in for inflation rate for social security retirement benefits purposes. Since a 5% investment growth rate appears to be achievable over a long term investment horizon that spans the potentially equally long retirement span of today's retirees, an investment growth rate that exceeds COLA moderately is therefore a reasonable expectation for the subject strategy.

2. **Option B** is also based on the same or similar investments as Option A at 5% return, except that it is positioned in an account that is subject to the 28% income tax on the growth of the investment. Proceeds from this option can be deployed for further investments in either Option C, annuity, or Option E, long term care insurance.

3. **Option C** entails the use of annuity that would be funded by the early benefit funds to generate income to offset the additional social security benefits from deferral. The data for annuity are broken down by gender (CM for male, CF for female in Table 1) and marital status for the couple through a joint or a combination of individual policy (C1 – C3 in Tables 2 - 3A), as gender and marital status are factors in determining annuity benefits. All annuity data are derived from the website [www.immediateannuities.com](http://www.immediateannuities.com).

All data for Option C constitute net income after taxes have been accounted for.

It must be noted that, for replication purposes, data from an internet source such as [www.immediateannuities.com](http://www.immediateannuities.com) are subject to change on a daily basis, because it is essentially a

secondary source, and the primary sources, which are the insurance companies that offer the annuities, are not always represented on such sites. Moreover, there are many annuities on the market besides immediate annuity that may offer different benefits.

4. **Option D** pertains to an Index Universal Life policy at 6% growth, which provides death benefit and cash value as cash reserve, as well as potential retirement income starting at age 80 or 85. Data for this option are obtained from Allianz Life Insurance Company for a joint life, as well as a single life policy, [www.allianzlife.com](http://www.allianzlife.com). Data for the joint life policy are identified in Tables 2 – 4 as D1 (no withdrawal), D2 (income withdrawal at 80), and D3 (income withdrawal at 85). For single retirees in Table 1, D1M, D2M, and D3M denote data for single male retirees, and D1F, D2F, and D3F for single female retirees.

This vehicle allows the immediate leverage of social security benefits from day 1, as social security payments can be deposited in a life policy on a monthly, quarterly, or annual basis. Similar to annuity products, there are many such IUL policies on the market, the numbers presented in this paper are intended to be an example, and not a definitive result from this particular vehicle.

As it is a life insurance vehicle, underwriting is usually required, especially for the senior population. The data for this Option D assumes a ‘preferred’ underwriting category, which indicates ‘good health.’ Some retirees may not be able to utilize this option due to underwriting requirements.

If an IUL is accessed for income, it is advisable to do it with care in order not to trigger any potential tax consequence.

5. **Option E** covers the use of early benefit funds for health care through a long term care policy. The policy data for this option is derived from Lincoln Financial Group’s long term care policy known as *MoneyGuard*® II, which offers premium refund if the policy holder does not use the insured benefits, [www.lfg.com](http://www.lfg.com).

As gender makes a difference in insurance benefits, the tables below identify the difference by indicating E1 for male and E2 for female. There is no joint coverage for the type of LTC insurance included in this paper, which is based on a policy offered by Lincoln Financial Group, [www.lfg.com](http://www.lfg.com), although joint, linked, or shared policies are available on the market through other companies.

Option E is funded from the accumulated social security benefits from age 66 to the end of 69. This option allows retirees to leverage the benefit for long term care funding, which would not have been available otherwise, since many policies require a single premium or a 2-pay premium payment schedule.

Similar to life insurance, long term care insurance under this option may require underwriting, which would disqualify some retirees from using this leverage.

## Findings

1. The data confirm that social security benefits achieve parity at age 80, whether they are claimed at 66 or 70. So deferring benefit would not realize any additional benefit until after 80.

2. There are 54 total outcomes in this study, as summarized in Table 4. 39 (72%) of the outcomes show positive results for higher benefits from claiming benefits at 66 (figures in blue). 15 (28%) of the outcomes depict a benefit parity that would occur at age 97 or later. Thus the overall result shows that in virtually all the cases, using leverage to maximize early social security benefits would likely work for beneficiaries who would survive to the high 90's.

3. Options A and D1 offer the best outcomes with positive results across all scenarios. These outcomes are achieved because the early benefits can accumulate through the entire retirement years without being deployed for retirement expenses. They serve essentially as liquidity reserve that a retiree can access for any purpose at any time.

4. The returns for Options A and D1 are particularly noteworthy for Scenarios 2A and 3A for the surviving spouse. As shown in Table 4, the total net returns for Options A (\$606,767) and D1 (\$676,472) under Scenario 2A for the surviving spouse at 100 exceed the returns for the couple if both had survived to 100 (\$348,209 for Option A, and \$417,914 for Option D1 in Scenario 2). Scenario 3A exhibits similar results.

This outcome suggests that frontloading social security benefits is actually highly beneficial to the surviving spouse, which contradicts the conventional wisdom that delaying social security to 70 would ensure more income protection for the surviving spouse.

5. The results also show that if a life policy is used for retirement income under Options D2 and D3, the aggregate benefits would also exceed what social security can offer through deferred benefit claim.

6. The leverage strategy also appears to work on different levels of benefit and income, because the outcome for the beneficiaries with lower benefits (the couple with 150% benefit) tracks the outcome for the beneficiaries with higher benefits (the couple with 200% benefit), even though the former receives only 75% of the benefits of the latter.

7. The data also indicate that some leverage options work better than others for each beneficiary group. For example, the life insurance Option D may not work as well for singles as for a couple because the policy benefits for singles are generally lower than for a couple with a joint policy.

8. The result for Option B is noteworthy in that it's essentially positive across all scenarios, as deficits occur at age 100 in 3 of the 6 scenario outcomes (Table 4).

This result for Option B indicates the lower threshold for the requisite return for this strategy to work. After accounting for income tax on the investment growth, the net rate of return amounts to 3.6%, which is 0.6% over the assumed COLA rate of 3%. It suggests that this strategy would work as long as the leverage return is around 1% above COLA. It would definitely work if the return is 2% above COLA, as demonstrated in Option A, while returns below COLA would most likely make this leverage strategy unworkable.

9. Leverage Option E for long term care appears to work in all scenarios except in Scenario 3A where the surviving spouse may encounter a potential deficit at age 98.

## **Discussion**

### **A. Mortality Risk**

The most common advice on social security benefit claim currently is to delay it to age 70 in order to maximize the payments for life for retirees. It is based on the concern for longevity, as well as inflation risks, which can be mitigated by having COLA applied to social security benefits when there is inflation.

However, as we know that the amount of benefit is the same until age 80, whether it is claimed at 66 or 70, there is little benefit to a retiree for delaying the benefit should he die sooner than later before 80, although it is argued that a surviving spouse, if any, may get better financial protection by getting a bigger social security check for spousal benefit.

The purpose of this article is to recognize that mortality risk should be considered in deciding when to claim benefits, and to propose a solution to the dilemma that confronts all social security beneficiaries. The solution is to claim benefits at full retirement age of 66, and to leverage the cumulative benefits over 4 years in a variety of investment vehicles that would create assets or income to offset the loss of the additional social security payments from deferring the claim to 70.

Based on the findings from our study, this leverage strategy appears to work for all the select beneficiary groups, namely, singles, both male and female, as well as couples with different levels of benefits in every decade of retirement, though the leverage options may provide different benefit amounts among the beneficiaries because of the different social security benefit amounts. In fact, our findings indicate that the strategy can work so well that it can exceed the benefits from deferral by more than \$600,000 in one scenario (2A) under Options A and D at the end of a 34-year retirement for high income beneficiaries with an annual benefit that begins at \$60,000.

### **B. Longevity Risk**

Given that the early social security benefits can be leveraged to produce long term benefits that can last 34 years or more, frontloading the benefits can also address longevity issues if the right leverage is adopted by a beneficiary. Which leverage option

should be selected would depend on the retirement needs of the beneficiary, his risk tolerance, financial resources, overall financial goal, marital status, health status, and other applicable factors.

### **C. Survivor Risk**

Perhaps the most significant finding of this study is the fact that a surviving spouse can benefit from the frontloading of benefits by leveraging the early benefit funds through investments or an insurance vehicle such as a joint and survivor policy from an Index Universal Life program. In comparing the outcome for a couple who both survive to age 100 (Scenarios 2 and 3), with the outcome for a couple with one spouse dying at life expectancy of 85 (Scenarios 2A and 3A), it is clear that the latter scenarios show that a surviving spouse can consistently get better financial protection when the early social security benefits are properly leveraged and realized. This finding directly contradicts the general belief that delaying social security benefits would offer a surviving spouse better income protection in retirement.

### **D. Market Risk**

The arguments against early benefit claim usually include longevity, inflation, and market risks, because social security is a guaranteed, safe, and inflation adjusted source of retirement income that is more reliable than income from other types of retirement investment. On the other hand, social security is subject to public policy and mortality risks that work against some beneficiaries, as the benefits may be modified at any time due to policy changes, such as the recent restrictions on the 'file and suspend' strategy. Additionally, according to the statement of the public trustees of the Social Security Administration on the annual trustee report for 2015, annual social security costs will be more than 25% higher than income by 2034. [www.ssa.gov/OACT/TRUSM/index.html](http://www.ssa.gov/OACT/TRUSM/index.html). There is always a risk whether the benefit in the future will remain the same.

One way to mitigate market risk is to invest the early benefit funds in low risk vehicles such as an IUL or a LTC policy where the benefits are guaranteed up front. While these vehicles may not be available to everyone due to underwriting requirements, they should be considered as a viable leverage to protect what a beneficiary is entitled to in addressing his mortality risks. There is also a bias among many financial advisors against using cash value life insurance for retirement purposes due to policy costs, among other reasons. However, as this study demonstrates, the benefits of a cash value life insurance may serve as an effective leverage to ameliorate both mortality and market risks, and to provide an additional source of retirement income that may last till death.

### **E. Retirement Risks**

The convergence of various factors that affect retirement, such as increased life expectancy, insufficient retirement savings, market volatility, exorbitant healthcare costs, low interest rates for fixed income, etc., has highlighted the need for retirement planning, particularly in the area of retirement income. These issues serve as the backdrop for the

increased attention to social security, which is a major source of retirement income for millions of retirees.

While it is true that delaying social security benefits to 70 would yield a higher payout over time, the fact is that it may not be the best course of action for retirees who may not live long enough to enjoy the benefit. Since the current life expectancy is around 84.3 for Americans age 65 and over, and benefits are the same until age 80, it means that many Americans may not actually realize the promise of higher social security benefits should they follow the advice of delaying the benefit. The fear of dying early, among other reasons, may explain why only 2% of male beneficiaries and 4% of female beneficiaries defer benefit claim to 70. Mortality concern is also cited by 25% of the respondents in the Nationwide survey mentioned earlier as the reason for claiming social security early.

It is therefore important for financial advisors to help retirees assess the various risks in determining what are the best way and the best time to claim social security, and how to maximize the benefits through their retirement years. In light of the different retirement needs that face each retiree, it may not be enough to advise only that delaying social security claim is the best way to ensure more retirement income. What is needed, perhaps, is an understanding of the total picture of a retiree's finances, and his unique retirement risks.

For example, for a single retiree, if he/she has enough income from various sources for all the living expenses, but has no protection for long term care, an advisor might suggest that claiming social security at 66 and leveraging the early benefit funds for a substantial long term care insurance policy may be an appropriate solution to meeting the healthcare needs of the retiree. In our study, this can be accomplished by getting a policy of over \$300,000 with the early benefit funds of \$100,000. This coverage amount may be more than what the retiree can get from deferring social security to 70, and is a better way to go for healthcare protection than, for example, Option A, which would not give him/her the same coverage amount until age 91.

Or, in the case of a couple who would like to have more financial protection for the surviving spouse, whoever it may be, they can apply the early social security benefits to a cash value life insurance policy as Option D, which can offer various benefits, including tax-free income, that is relatively safe from market risk. The protection would exceed what the additional social security payout would offer through claim deferral until the survivor's death. Moreover, a joint life insurance policy, such as the kind that's used for illustration in this study, can also provide the funds for long term care expenses for the couple if the policy conditions are met. In the event they should have a goal of leaving a legacy to their family, the leverage option with life insurance can also assist in accomplishing the goal.

## **F. Fiduciary Requirement**

In view of the new Department of Labor's fiduciary rule, which requires that advisors act in the best interest of their clients on retirement issues, advisors may need to help clients

assess the benefits of claiming social security earlier than later by apply this leverage strategy, since early benefits appear to be in line with what clients want in addressing their mortality concern. The positive outcomes of the various leverage options tested in this study also show that the strategy would mitigate longevity risk by ensuring that the early benefits can provide long term retirement resources for the retirees.

## **Conclusion**

The purpose of this paper is to address mortality as well as longevity risks in the timing of social security benefits. The results of our study confirm that the proposed leverage strategy would enhance retirees' retirement resources consistently to age 100. The strategy would mitigate retirees' mortality risk, while ensuring that the early benefits would exceed or be comparable to benefits derived from deferral.

The most significant finding from this study is the fact that frontloading social security benefits actually provide more retirement resources for survivors over time than deferred benefits. It is therefore critical that advisors help their clients realize the full potential of their social security benefits through assessing the relative merits of early and deferred benefit claim by applying this leverage strategy. The new DOL fiduciary rule may require that such assessment be done in the best interest of the clients.

Table 1: Scenario 1 - Single Beneficiary 100% Social Security Benefits

Age	Social Security Benefits			Leverage Options			Male		Female		E1 Male LTC*	E2 Female Premium \$100,000
	SS @66	SS @70	SS @70 Net	DB <sup>2</sup>	IUL	IUL Income	DB	IUL	IUL Income			
	COLA 3%	COLA 3%	COLA 3% Tax 28% Tax 28% Net Deficit	DB <sup>2</sup>	IUL	IUL Income	DB	IUL	IUL Income			
66	\$30,000	\$22,860	0	0	\$24,003	\$23,683	\$250,207	\$250,207	80	85	85	38000
67	30900	23546	0	0	49526	48924	250207	250207	80	85	85	38000
68	31827	24252	0	0	77883	75815	250207	250207	80	85	85	38000
69	32782	24980	0	0	108006	104424	250207	250207	80	85	85	38000
70	125509	95638	0	0	108006	104424	250207	250207	80	85	85	38000
DB					108006	104424	250207	250207	80	85	85	38000
71	33765	25729	44570	33962	113406	108183	250207	250207	80	85	85	38000
72	34778	26501	45907	34981	119076	112078	250207	250207	80	85	85	38000
73	35821	27296	47284	36030	125030	116113	250207	250207	80	85	85	38000
74	36896	28115	48703	37111	131282	120293	250207	250207	80	85	85	38000
75	38003	28958	50164	38225	137846	124623	250207	250207	80	85	85	38000
76	39143	29827	51669	39371	144738	129110	250207	250207	80	85	85	38000
77	40317	30722	53219	40552	151975	133758	250207	250207	80	85	85	38000
78	41527	31643	54815	41769	159574	138573	250207	250207	80	85	85	38000
79	42772	32593	56460	43022	167552	143562	250207	250207	80	85	85	38000
80	44056	33571	58154	44313	175930	148730	250207	250207	80	85	85	38000
81	387078	294954	510944	389336	175930	148730	250207	250207	80	85	85	38000
DB					175930	148730	250207	250207	80	85	85	38000
Leverage				390592	175930	148730	250207	250207	80	85	85	38000
66/70 Net				389336	175930	148730	250207	250207	80	85	85	38000
Cum Benefits*					1256							
80	45377	34578	59898	45642	184727	154080	250207	250207	80	85	85	38000
81	46738	35615	61695	47011	193963	159631	250207	250207	80	85	85	38000
82	48140	36684	63546	48422	203662	165378	250207	250207	80	85	85	38000
83	49585	37784	65452	49874	213845	171331	250207	250207	80	85	85	38000
84	51072	38918	67416	51370	224537	177989	250207	250207	80	85	85	38000
85	52604	40085	69438	52912	235764	183889	250207	250207	80	85	85	38000
86	54183	41288	71521	54499	247552	190509	250207	250207	80	85	85	38000
87	55808	42527	73667	56134	259929	197368	250207	250207	80	85	85	38000
88	57482	43802	75877	57818	272926	204473	250207	250207	80	85	85	38000
89	59207	45116	78153	59552	286572	211834	250207	250207	80	85	85	38000
Total 80-89	520196	396598	666664	522234	126857	211834	250207	250207	80	85	85	38000
DB					126857	211834	250207	250207	80	85	85	38000
Leverage				812570	286572	211834	250207	250207	80	85	85	38000
66/70 Net				812570	286572	211834	250207	250207	80	85	85	38000
Cum Benefits*					125580	86254	250207	250207	80	85	85	38000
90	60982	46469	80498	61339	300901	219460	250207	250207	80	85	85	38000
91	62811	47863	82913	63179	315946	227360	250207	250207	80	85	85	38000
92	64696	49299	85400	65075	331743	235545	250207	250207	80	85	85	38000
93	66637	50778	87962	67027	348331	244025	250207	250207	80	85	85	38000
94	68636	52301	90601	69038	365747	252810	250207	250207	80	85	85	38000
95	70695	53870	93319	71109	384034	261911	250207	250207	80	85	85	38000
96	72816	55486	96119	72242	403236	271340	250207	250207	80	85	85	38000
97	75000	57151	99002	75439	423598	281108	250207	250207	80	85	85	38000
98	77250	58866	101973	77702	444568	291228	250207	250207	80	85	85	38000
99	79568	60632	105032	80033	466796	301712	250207	250207	80	85	85	38000
100	81955	62450	108183	82434	490136	312574	250207	250207	80	85	85	38000
Total 90-100	781045	595165	1031003	785617	125574	312574	250207	250207	80	85	85	38000
DB					125574	312574	250207	250207	80	85	85	38000
Leverage				1698187	490136	312574	250207	250207	80	85	85	38000
66/70 Net				1698187	490136	312574	250207	250207	80	85	85	38000
Cum Benefits*					125574	312574	250207	250207	80	85	85	38000
101	1382155		1698187	316052	174104	-3458	250207	250207	80	85	85	38000
Leverage				1698187	316052	-3458	250207	250207	80	85	85	38000
66/70 Net				1698187	316052	-3458	250207	250207	80	85	85	38000
Cum Benefits*					16251	-2040	250207	250207	80	85	85	38000
102	1382155		1698187	316052	174104	-3458	250207	250207	80	85	85	38000
Leverage				1698187	316052	-3458	250207	250207	80	85	85	38000
66/70 Net				1698187	316052	-3458	250207	250207	80	85	85	38000
Cum Benefits*					16251	-2040	250207	250207	80	85	85	38000
103	1382155		1698187	316052	174104	-3458	250207	250207	80	85	85	38000
Leverage				1698187	316052	-3458	250207	250207	80	85	85	38000
66/70 Net				1698187	316052	-3458	250207	250207	80	85	85	38000
Cum Benefits*					16251	-2040	250207	250207	80	85	85	38000
104	1382155		1698187	316052	174104	-3458	250207	250207	80	85	85	38000
Leverage				1698187	316052	-3458	250207	250207	80	85	85	38000
66/70 Net				1698187	316052	-3458	250207	250207	80	85	85	38000
Cum Benefits*					16251	-2040	250207	250207	80	85	85	38000
105	1382155		1698187	316052	174104	-3458	250207	250207	80	85	85	38000
Leverage				1698187	316052	-3458	250207	250207	80	85	85	38000
66/70 Net				1698187	316052	-3458	250207	250207	80	85	85	38000
Cum Benefits*					16251	-2040	250207	250207	80	85	85	38000
106	1382155		1698187	316052	174104	-3458	250207	250207	80	85	85	38000
Leverage				1698187	316052	-3458	250207	250207	80	85	85	38000
66/70 Net				1698187	316052	-3458	250207	250207	80	85	85	38000
Cum Benefits*					16251	-2040	250207	250207	80	85	85	38000
107	1382155		1698187	316052	174104	-3458	250207	250207	80	85	85	38000
Leverage				1698187	316052	-3458	250207	250207	80	85	85	38000
66/70 Net				1698187	316052	-3458	250207	250207	80	85	85	38000
Cum Benefits*					16251	-2040	250207	250207	80	85	85	38000
108	1382155		1698187	316052	174104	-3458	250207	250207	80	85	85	38000
Leverage				1698187	316052	-3458	250207	250207	80	85	85	38000
66/70 Net				1698187	316052	-3458	250207	250207	80	85	85	38000
Cum Benefits*					16251	-2040	250207	250207	80	85	85	38000
109	1382155		1698187	316052	174104	-3458	250207	250207	80	85	85	38000
Leverage				1698187	316052	-3458	250207	250207	80	85	85	38000
66/70 Net				1698187	316052	-3458	250207	250207	80	85	85	38000
Cum Benefits*					16251	-2040	250207	250207	80	85	85	38000
110	1382155		1698187	316052	174104	-3458	250207	250207	80	85	85	38000
Leverage				1698187	316052	-3458	250207	250207	80	85	85	38000
66/70 Net				1698187	316052	-3458	250207	250207				

Table 2: Scenario 2 - Couple With 200% Social Security Benefits

		Social Security Benefits							Early Benefits/Leverage Options							
		1	2	3	4	5	A	B	C1	C2	C3	D1	D2	D3	E1	E2
Age	SS 66 COLA 3% Tax 28%	SS 70 COLA 3% Tax 28%	SS 70 COLA 3% Tax 28%	SS 70 COLA 3% Tax 28%	SS 70 COLA 3% Tax 28%	70 v 66 Net Deficit	5% Tax Deferred	5% Taxable	Husband	Wife	Joint H+W Premium	IUL DB	Joint Life IUL Income 80	85 Total Premium \$208,850	LTC Insurance Husband Premium \$100,000	Wife Premium \$100,000
66	\$60,000	\$45,720	0	0	0	0	\$48,006	\$47,366	--	--	--	607420	--	--	--	--
67	61,800	47,082	0	0	0	0	9,853	9,789	--	--	--	607420	--	--	--	--
68	63,654	48,504	0	0	0	0	15,775	15,132	--	--	--	607420	--	--	--	--
69	65,564	49,960	0	0	0	0	21,622	20,850	--	--	--	607420	--	--	--	--
70	67,518	51,459	0	0	0	0	21,602	20,850	\$148,732	\$297,463	\$297,463	607420	--	--	--	--
<b>Leverage</b>		1,912,76	0	0	0	0	21,602	20,850	--	--	--	607420	--	--	--	--
<b>66v70 Net</b>							21,602	20,850				607420				
<b>Cum Benefits*</b>							2,268,23	2,163,69				6,074,20				
70	67,531	51,459	8,914	6,792	1,646	0	22,623	21,639	--	--	--	607420	--	--	326,400	338,000
71	69,557	53,002	9,181	6,996	1,696	0	23,164	22,458	--	--	--	607420	--	--	326,400	338,000
72	71,644	54,593	9,450	7,206	1,746	0	25,007	23,228	--	--	--	607420	--	--	326,400	338,000
73	73,793	56,230	9,740	7,424	1,799	0	26,276	24,088	--	--	--	607420	--	--	326,400	338,000
74	76,007	57,917	10,029	7,650	1,853	0	27,505	24,949	--	--	--	607420	--	--	326,400	338,000
75	78,287	59,655	10,339	7,874	1,909	0	28,940	25,822	--	--	--	607420	--	--	326,400	338,000
76	80,636	61,445	10,639	8,106	1,961	0	30,395	26,718	--	--	--	607420	--	--	326,400	338,000
77	83,055	63,288	10,932	8,339	2,015	0	31,963	27,749	--	--	--	607420	--	--	326,400	338,000
78	85,546	65,186	11,291	8,566	2,086	0	33,641	28,916	--	--	--	607420	--	--	326,400	338,000
79	88,113	67,142	11,630	8,827	2,145	0	35,437	29,763	--	--	--	607420	--	--	326,400	338,000
<b>Total 70-75</b>	<b>714,167</b>	<b>589,917</b>	<b>102,190</b>	<b>77,687</b>	<b>18,770</b>	<b>25,06</b>	<b>351,877</b>	<b>297,463</b>				607420			<b>3,264,000</b>	<b>3,380,000</b>
<b>Leverage</b>							351,877	297,463				607420				
<b>66v70 Net</b>							351,877	297,463				607420				
<b>Cum Benefits*</b>							3,620,154	3,271,926				6,681,420				
80	90,756	69,156	11,978	9,126	2,213	0	36,947	30,583	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
81	93,479	71,231	12,392	9,402	2,279	0	38,945	31,698	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
82	96,283	73,368	12,704	9,684	2,347	0	40,742	32,813	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
83	99,172	75,569	13,007	9,971	2,418	0	42,709	34,033	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
84	102,147	77,836	13,483	10,274	2,498	0	44,904	35,281	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
85	105,211	80,171	13,879	10,582	2,585	0	47,149	36,570	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
86	108,367	82,576	14,304	10,900	2,642	0	49,526	37,817	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
87	111,618	85,053	14,736	11,227	2,711	0	51,983	39,136	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
88	114,967	87,605	15,157	11,568	2,803	0	54,587	40,646	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
89	118,416	90,233	15,569	11,918	2,875	0	57,317	42,063	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
<b>Total 80-85</b>	<b>1,040,416</b>	<b>792,796</b>	<b>137,350</b>	<b>104,649</b>	<b>25,396</b>	<b>25,06</b>	<b>573,171</b>	<b>420,663</b>	<b>1,582,300</b>	<b>307,750</b>	<b>299,600</b>	<b>299,160</b>	<b>607,420</b>	<b>176,720</b>	<b>3,264,000</b>	<b>3,380,000</b>
<b>Leverage</b>							573,171	420,663								
<b>66v70 Net</b>							573,171	420,663								
<b>Cum Benefits*</b>							9,243,321	8,697,589								
90	121,968	92,940	16,098	12,681	2,974	0	60,829	45,807	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
91	125,627	95,728	16,528	12,961	3,063	0	63,920	49,623	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
92	129,396	98,600	17,003	13,252	3,155	0	66,816	53,466	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
93	133,278	101,558	17,527	13,405	3,249	0	69,692	57,345	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
94	137,276	104,605	18,105	13,807	3,347	0	73,527	60,064	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
95	141,394	107,743	18,664	14,221	3,447	0	78,610	63,102	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
96	145,636	110,975	19,240	14,648	3,552	0	80,608	65,790	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
97	150,005	114,304	19,807	15,082	3,657	0	84,634	68,350	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
98	154,505	117,734	20,347	15,540	3,767	0	88,916	71,707	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
99	159,141	121,266	21,006	16,007	3,880	0	93,634	75,987	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
100	163,915	124,904	21,636	16,487	3,999	0	98,016	80,914	158,230	30,775	29,960	29,916	607420	17,672	326,400	338,000
<b>Total 90-100</b>	<b>1,562,141</b>	<b>1,190,357</b>	<b>206,209</b>	<b>157,127</b>	<b>38,017</b>	<b>38,017</b>	<b>980,916</b>	<b>619,514</b>	<b>174,053</b>	<b>164,472</b>	<b>385,825</b>	<b>267,870</b>	<b>105,002</b>	<b>176,720</b>	<b>3,264,000</b>	<b>3,380,000</b>
<b>Leverage</b>							980,916	619,514								
<b>66v70 Net</b>							980,916	619,514								
<b>Cum Benefits*</b>							10,224,237	9,307,093								
66v70 Net	276,436	339,665	632,107				3,482,209	-1,259,939	--	-	6,462,75	503,580	6,282,36	105,002	32,640	33,800
Cum Benefits*							3,482,209	-1,259,939	14,168	-1,285,27	-3,871	10,946	21,946			

Note: 66v70 Net Cum Benefits\* = Cumulative social security net benefits at 66 plus cumulative leverage less cumulative social security net benefits at 70.

Table 2A: Scenario 2A - Couple with 200% Social Security Benefits and Survivor Benefits after 85

Age	Social Security Benefits				Early Benefits Leverage Options				E1 LTC Insurance \$100,000	E2 Premium \$100,000					
	1	2	3	4	5	A Investments 5% Tax Deferred	B 5% Taxable Tax 28%	C1 Husband Wife Joint Life Premium			C2 Husband Wife Joint Life Premium	C3 Wife Only Premium	D1 IUL DB	D2 Joint Life IUL Income \$208,850	D3 D8 \$5
66	\$60,000	\$45,720	0	0	0	\$46,006	\$47,366	\$148,732	\$148,732	\$297,463	\$297,463	607420	--	--	
67	61800	47052	0	0	0	99853	97859	--	--	--	--	607420	--	--	
68	63654	48504	0	0	0	15775	15162	--	--	--	--	607420	--	--	
69	65564	49960	0	0	0	21602	20885	--	--	--	--	607420	--	--	
70	67551	51459	89141	67925	16466	22623	21636	--	--	--	--	607420	--	--	
71	69557	53002	91815	69963	16961	23164	22458	--	--	--	--	607420	--	--	
72	71644	54593	94570	72062	17469	25072	23228	--	--	--	--	607420	--	--	
73	73793	56230	97407	74224	17994	26276	24058	--	--	--	--	607420	--	--	
74	76007	57917	100329	76450	18533	27505	24924	--	--	--	--	607420	--	--	
75	78287	59655	103339	78744	19089	28960	25822	--	--	--	--	607420	--	--	
76	80636	61445	106439	81106	19661	30365	26758	--	--	--	--	607420	--	--	
77	83055	63288	109632	83539	20251	31963	27749	--	--	--	--	607420	--	--	
78	85546	65186	112921	86046	20860	33521	28726	--	--	--	--	607420	--	--	
79	88113	67142	116309	88627	21485	35187	29746	--	--	--	--	607420	--	--	
80	90756	69156	119798	91286	22190	36971	30593	15823	14952	23980	29916	607420	17672	--	
81	93479	71231	123392	94025	22794	38795	31698	15823	14952	23980	29916	607420	17672	--	
82	96283	73368	127094	96845	23478	40742	32810	15823	14952	23980	29916	607420	17672	--	
83	99172	75569	130907	99751	24182	42770	34023	15823	14952	23980	29916	607420	17672	--	
84	102147	77836	134834	102743	24908	44904	35248	15823	14952	23980	29916	607420	17672	--	
80-84	481836	367159	636024	484650	117491	449094	352481	15823	14952	153875	119900	149580	607420	88360	--
<b>Survivor Benefits</b>															
85	52606	40086	69440	52913	12827	47159	365170	--	14952	23980	29916	607420	17672	25976	
86	54184	41289	71523	54500	13212	49526	378317	--	14952	23980	29916	607420	17672	25976	
87	55810	42527	73669	56135	13608	51982	391896	--	14952	23980	29916	607420	17672	25976	
88	57484	43803	75879	57819	14016	54587	406046	--	14952	23980	29916	607420	17672	25976	
89	59209	45117	78155	59554	14437	573170	420663	--	14952	23980	29916	607420	17672	25976	
80-89	761128	579981	1004690	765572	185592	573171	420663	--	74760	153875	119900	149580	607420	129880	
<b>Survivor Deficits</b>															
90	60984	46470	80499	61341	14871	601829	435807	--	14952	23980	29916	607420	17672	25976	
91	62814	47864	82914	63181	15317	631920	450623	--	14952	23980	29916	607420	17672	25976	
92	64698	49300	85401	65077	15777	663516	466846	--	14952	23980	29916	607420	17672	25976	
93	66639	50779	87963	67029	16250	696692	483652	--	14952	23980	29916	607420	17672	25976	
94	68638	52302	90602	69040	16737	731527	501064	--	14952	23980	29916	607420	17672	25976	
95	70697	53871	93520	71111	17240	768103	519102	--	14952	23980	29916	607420	17672	25976	
96	72818	55488	96120	73244	17757	806508	537790	--	14952	23980	29916	607420	17672	25976	
97	75003	57152	99004	75442	18289	846834	557150	--	14952	23980	29916	607420	17672	25976	
98	77253	58867	101974	77705	18838	889176	577207	--	14952	23980	29916	607420	17672	25976	
99	79570	60633	105033	80036	19403	933634	597987	--	14952	23980	29916	607420	17672	25976	
100	81957	62452	108184	82437	19985	980316	619514	--	14952	23980	29916	607420	17672	25976	
Total 80-100	781071	595178	1031015	785643	190465	980316	619514	--	164472	--	263780	320076	1050021	194392	
D8	--	--	--	--	--	--	--	--	--	--	--	--	1050021	285736	
Leverage*	--	--	--	--	--	393107	619514	--	393107	508580	628236	1050021	582756	744147	
66v70Net	1956353	--	232902	373549	--	606767	245965	--	19558	130031	234687	676472	209207	350598	
Cum Benefits*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Note: 66v70 Cum Benefits\* = Cumulative social security net benefits at 66 plus cumulative leverage less social security net benefits at 70.

Table 3: Scenario 3 - Couple with 150% Social Security Benefits

Age	Social Security Benefits				5	Early Benefits Leverage Options				E1	E2							
	1	2	3	4		A	B	C1	C2			C3	D1	D2	D3	D4	E1	E2
	SS 66 COLA 3%	SS 66 Net Tax 28%	SS 70 COLA 3%	SS 70 Net Tax 28%		5% Tax Deferred	5% Tax Deferred	Husband Wife \$111,551 \$111,551	Joint Life H+W Premium \$223,102			Joint Life Wife Only Premium \$223,102	IUL DB	Joint Life IUL Income Premium \$156,641	IUL DB	Joint Life IUL Income Premium \$156,641	Husband Premium \$75,000	Wife Premium \$75,000
66	45000	45066	0	0	0	36005	35525				455572							
67	46350	35319	0	0	0	74890	73394				455572							
68	47745	36382	0	0	0	116836	113728				455572							
69	49173	37470	0	0	0	162021	156641				455572							
DB	188268	154237	0	0	0	162021	156641				455572							
Leverage* 66v70Net	154237	0	0	0	0	162021	156641				455572							
Cum Benefits*																		
70	50648	38594	66855	50944	12350	170122	162280				455572			244812	243108			
71	52167	39752	68861	52472	12721	178628	168122				455572			244812	243108			
72	53732	40944	70926	54046	13102	187560	174175				455572			244812	243108			
73	55344	42173	73054	55668	13495	196937	180445				455572			244812	243108			
74	57005	43438	75246	57338	13900	206784	186941				455572			244812	243108			
75	58715	44741	77503	59058	14317	217124	193671				455572			244812	243108			
76	60476	46083	79828	60830	14747	227990	200643				455572			244812	243108			
77	62291	47466	82223	62655	15189	239379	207866				455572			244812	243108			
78	64159	48890	84690	64534	15645	251348	215349				455572			244812	243108			
79	66084	50356	87231	66470	16114	263915	223102				455572			244812	243108			
Total 70-75	580623	442437	766418	584016	141579	263915	223102				455572			244812	243108			
DB																		
Leverage* 66v70Net	596674	584016	12658	584016	12658	263915	223102				455572			244812	243108			
Cum Benefits*																		
80	68067	51867	89848	68464	16597	277111	231133	11861	11220	23081	17988	22440	455572	11684	243108			
81	70109	53423	92543	70518	17095	290967	239454	11861	11220	23081	17988	22440	455572	11684	243108			
82	72121	55026	95320	72633	17608	305515	248075	11861	11220	23081	17988	22440	455572	11684	243108			
83	74379	56676	98179	74812	18136	320791	257005	11861	11220	23081	17988	22440	455572	11684	243108			
84	76610	58377	101125	77057	18680	336830	266257	11861	11220	23081	17988	22440	455572	11684	243108			
85	78908	60128	104158	79569	19240	353672	275843	11861	11220	23081	17988	22440	455572	11684	243108			
86	81276	61932	107283	81750	19818	371395	285773	11861	11220	23081	17988	22440	455572	11684	243108			
87	83714	63790	110502	84202	20412	389923	296061	11861	11220	23081	17988	22440	455572	11684	243108			
88	86225	65704	113817	86728	21025	409419	306719	11861	11220	23081	17988	22440	455572	11684	243108			
89	88812	67675	117231	89330	21655	429890	317761	11861	11220	23081	17988	22440	455572	11684	243108			
Total 80-85	780312	594597	1030007	784863	190266	429890	317761	118610	112200	230810	179880	224400	455572	116840	243108			
DB																		
Leverage* 66v70Net	1191271	1368879	177608	1368879	177608	429890	317761			230810	179880	224400	455572	434777	243108			
Cum Benefits*						252282	140153			53202	2272	46792	277964	257169	156008			
90	91476	69705	120748	92010	22305	451385	328200	11861	11220	23081	17988	22440	455572	11684	243108			
91	94220	71796	124370	94770	22974	479554	340522	11861	11220	23081	17988	22440	455572	11684	243108			
92	97047	73920	128102	97613	23663	497929	353329	11861	11220	23081	17988	22440	455572	11684	243108			
93	99958	76169	131945	100542	24373	522535	366049	11861	11220	23081	17988	22440	455572	11684	243108			
94	102957	78454	135903	103558	25104	548661	379227	11861	11220	23081	17988	22440	455572	11684	243108			
95	106046	80807	139980	106665	25858	576094	393879	11861	11220	23081	17988	22440	455572	11684	243108			
96	109227	83231	144179	109865	26653	604899	407023	11861	11220	23081	17988	22440	455572	11684	243108			
97	112504	85728	148505	113161	27452	635144	421676	11861	11220	23081	17988	22440	455572	11684	243108			
98	115879	88300	152960	116556	28255	666901	436875	11861	11220	23081	17988	22440	455572	11684	243108			
99	119355	90949	157549	120052	29103	700246	452583	11861	11220	23081	17988	22440	455572	11684	243108			
100	122936	93678	162275	123654	29976	735259	468876	11861	11220	23081	17988	22440	455572	11684	243108			
Total 90-100	1171606	892767	1546516	1178445	285678	735259	468876	130471	123420	253891	179880	246840	455572	116840	243108			
DB																		
Leverage* 66v70Net	2084038	2547324	463286	2547324	463286	735259	468876			484701	377748	471240	455572	434777	243108			
Cum Benefits*						271973	5590			21415	-85538	7954	271883	-77611	11465			

Note: 66v70 Cum Benefits\* = Cumulative social security net benefits at 66 plus cumulative leverage less cumulative social security net benefits at 70.



**Table 4\***  
**Summary of Net Benefits and Deficits of Social Security Claim at 66**  
**Age 66-100**

66-69 Net SS Benefits	\$95,638		\$191,276	\$191,276	\$154,237	\$154,237
	Scenario 1 Single Male	Scenario 1 Single Female	Scenario 2 Couple with 200% Benefits	Scenario 2A Couple with 200% Benefits Survivor	Scenario 3 Couple with 150% Benefits	Scenario 3A Couple with 150% Benefits Survivor
A	\$174,104	\$174,104	\$348,209	\$606,767	\$271,973	\$401,573
B	-3458 P100	-3458 P100	-12593 P100	245965	5590	134854
CM	16251	--	--	--	--	--
CF	--	-2040 P100	--	--	--	--
C1	--	--	14168	19558	21415	-39097 P99
C2	--	--	-128527 P97	130031	-85538 P98	33726
C3	--	--	-3871 P100	254687	7954	137218
D1M	93678	--	--	--	--	--
D2M	-70598 P97	--	--	--	--	--
D3M	-29079 P99	--	--	--	--	--
D1F	--	52669	--	--	--	--
D2F	--	-76235 P97	--	--	--	--
D3F	--	-57773 P98	--	--	--	--
D1	--	--	417914	676472	271883	401147
D2	--	--	-49351 P99	209207	-77611 P98	51653
D3	--	--	92040	350598	38680	167944
E1	10368	--	10346	--	13169	--
E2	--	21968	21946	290851	11465	153898

\*All data are based on the last line of Tables 1-3A.