
Financial Plan & Report – Advanced

Prepared for

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Introduction

- This report has been created from the **LCF Planner** tool developed by *Lifecycle Finance, LLC* to enable individuals and families **model their finances and create a financial plan for every phase of their life**. Whether you are early in your career, starting and growing a family, preparing for retirement or already in your golden years, this tool allows you to model every aspect of your “financial life” and take specific actions to meet your financial goals
- The tool takes detailed inputs provided by you and models your family’s **income, expenses, savings, investment accounts, asset allocations, expected rate of return and tax filing status** and:
 - i. Calculates your **Cash Flow & Net Worth** every year upto your life expectancy age,
 - ii. Runs **Monte Carlo Simulations** to quantify uncertainty of investment returns,
 - iii. It **“Stress-tests” your Portfolio** against historical stock market sequence of returns,
 - iv. Does a **Sensitivity Analysis** of parameters you control so you can make changes to meet your goals,
 - v. Runs **Optimizers** that enable you to make smart decisions in every phase of your lifecycle,
 - vi. Provides a **Financial Plan & Report** that summarizes the information above
- **This report is a starting point only**. The goal of this report is to give you an “initial snapshot” of your finances and guide you thru the next steps required to complete your financial plan.

Executive Summary

1. The **Liquid and Total Net Worth** at the husband and wife's life expectancy age **using a Fixed Rate of Return assumption** is:

RESULTS	Husband	Wife	Estate Plan/ Target
Can you Retire at Desired Age?	YES	YES	
Liquid Net Worth at Life Expectancy Age	\$5,694,603	\$7,291,259	\$1,000,000
Total Net Worth (\$+Prop.) at Life Exp. Age	\$6,147,444	\$7,811,431	

2. Stock Market Returns vary from year-to-year. The **Probability of Success** of not running out of money at the husband and wife's life expectancy age **using a Monte Carlo Simulation** is:

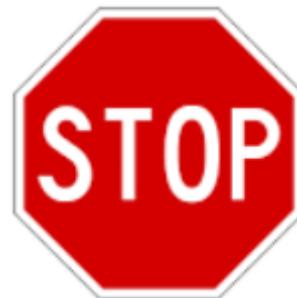
RESULTS	Fixed Rate of Return Results		Monte Carlo Results	
	Husband	Wife	Husband	Wife
Can you Retire at Desired Age?	YES	YES	YES	MAYBE
\$\$'s/Success % at Life Exp. Age	\$5,694,603	\$7,291,259	97%	90%
Net Worth (\$+Equity) at Life Exp. Age	\$6,147,444	\$7,811,431		
Estate Plan/Target & Success %		\$1,000,000	MAYBE --->	86%

3. Stock Market returns are not "random" from year-to-year. **Stress-testing your portfolio against the Historical S&P 500 Index Sequence of Returns** yields a **Probability of Success** of not running out of money at the husband and wife's life expectancy age at:

RESULTS	Fixed Rate of Return Results		Historical Return Results	
	Husband	Wife	Husband	Wife
Can you Retire at Desired Age?	YES	YES	YES	YES
\$\$'s/Success % at Life Exp. Age	\$5,694,603	\$7,291,259	100%	98%
Net Worth (\$+Equity) at Life Exp. Age	\$6,147,444	\$7,811,431		
Estate Plan/Target & Success %		\$1,000,000	YES --->	97%

A detailed assessment and explanation of your Inputs & Assumptions, Cash Flow & Net Worth Analysis, Sensitivity Analysis and results from Optimizers to meet various Goals are included in the following pages of the report

INPUTS & ASSUMPTIONS



- ***Carefully review*** your Inputs on pages 6 thru 12
- ***Correct*** any errors and re-run **LCF Planner**
- Results & Conclusions are ***highly dependent*** on Inputs & Assumptions

Inputs & Assumptions – *Demographics & Income*

Demographics

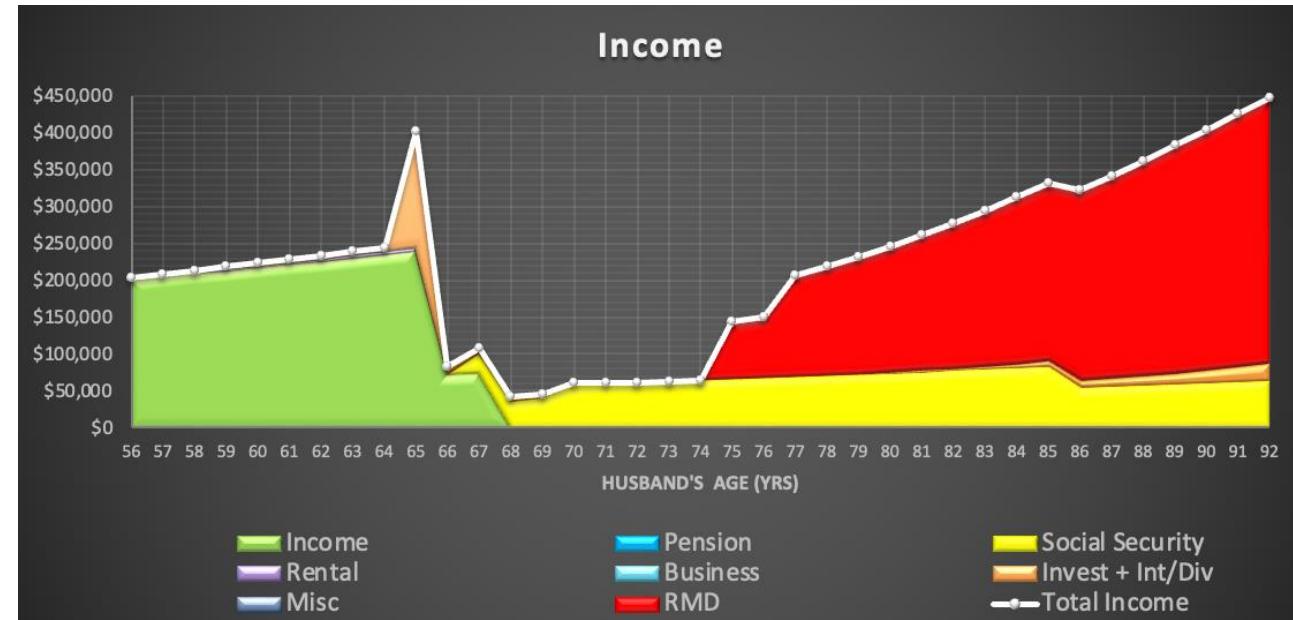
	Husband	Wife
Current Age	56	54
Life Expectancy Age	85	90
Desired Retirement Age	65	65

Income

	Husband	Wife
Current Income	\$140,000	\$60,000
Annual Increase in Income	2%	2%
Other Income Sources	Go to Detailed_Inputs Tab	
Retirement Income		
Retirement - Pension	\$0	\$0
Retirement - Social Security @FRA	\$35,000	\$20,000
Age When Pension Starts	60	60
Age when SS Starts	67	67

- The first 12 years of your income is shown in the table.
- Check Inputs for accuracy to ensure validity of results

Income

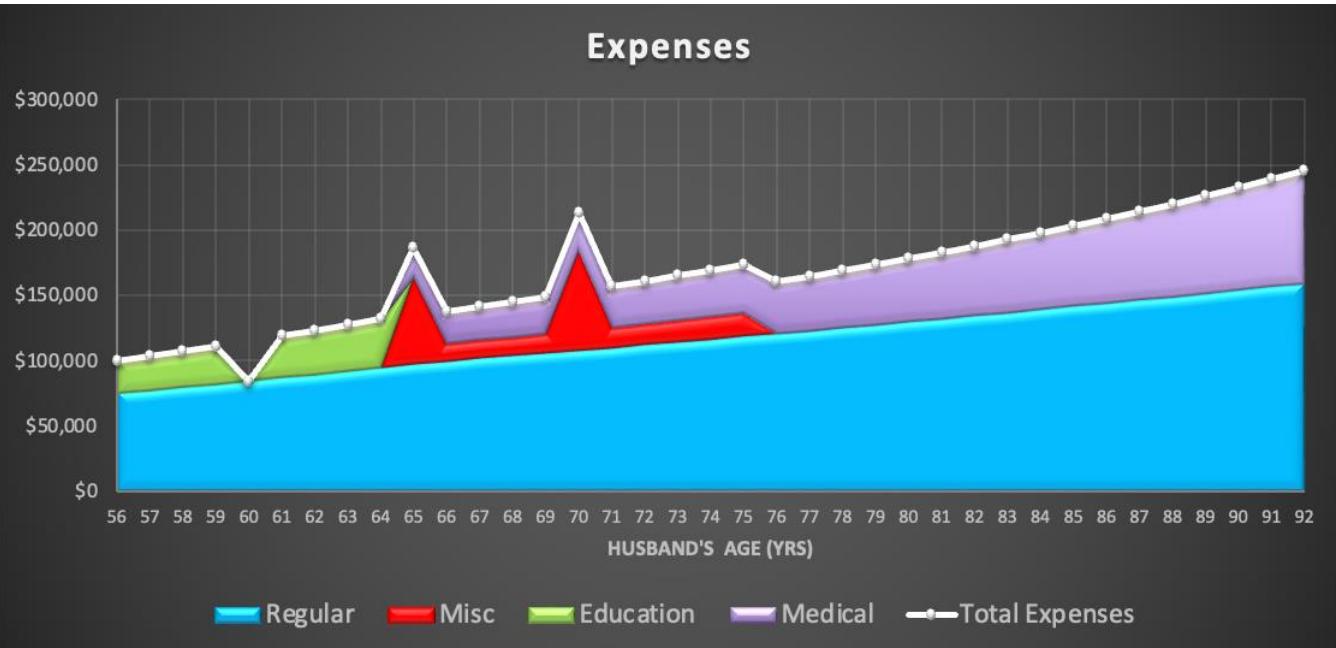


Year	Hsb Age	Wife Age	Annual Income									
			Husband			Wife			Rental Property Income	Business Income	Investment Income	Misc Income
			Income	Pension	Social Security	Income	Pension	Social Security				
1	56	54	\$140,000	\$0	\$0	\$60,000	\$0	\$0	\$1,267	\$0	\$0	\$0
2	57	55	\$142,800	\$0	\$0	\$61,200	\$0	\$0	\$1,563	\$0	\$0	\$0
3	58	56	\$145,656	\$0	\$0	\$62,424	\$0	\$0	\$1,868	\$0	\$0	\$0
4	59	57	\$148,569	\$0	\$0	\$63,672	\$0	\$0	\$2,181	\$0	\$0	\$0
5	60	58	\$151,541	\$0	\$0	\$64,946	\$0	\$0	\$2,504	\$0	\$0	\$0
6	61	59	\$154,571	\$0	\$0	\$66,245	\$0	\$0	\$2,835	\$0	\$0	\$0
7	62	60	\$157,663	\$0	\$0	\$67,570	\$0	\$0	\$3,176	\$0	\$0	\$0
8	63	61	\$160,816	\$0	\$0	\$68,921	\$0	\$0	\$3,528	\$0	\$0	\$0
9	64	62	\$164,032	\$0	\$0	\$70,300	\$0	\$0	\$3,889	\$0	\$0	\$0
10	65	63	\$167,313	\$0	\$0	\$71,706	\$0	\$0	\$4,260	\$0	\$0	\$0
11	66	64	\$0	\$0	\$0	\$73,140	\$0	\$0	\$0	\$0	\$0	\$0
12	67	65	\$0	\$0	\$26,753	\$74,602	\$0	\$0	\$0	\$0	\$0	\$0

Inputs & Assumptions – *Expenses*

Expenses

Recurring Yearly Expense			\$75,000				
Non-Recurring "Special" Expenses			Go to Detailed_Inputs Tab				
Expense Inflation			3.0%				
Retire Exp.		Exp Defl Age					
Inflation		% Defl/yr					
100.0%		65					
3.0%		1.0%					
Year	Hsb Age	Wife Age	Annual Expenses				
			Regular	Special			Retirement Deflation
Misc	Education	Medical					
1	56	54	\$75,000	\$0	\$25,000	\$0	100%
2	57	55	\$77,250	\$0	\$26,250	\$0	100%
3	58	56	\$79,568	\$0	\$27,563	\$0	100%
4	59	57	\$81,955	\$0	\$28,941	\$0	100%
5	60	58	\$84,413	\$0	\$0	\$0	100%
6	61	59	\$86,946	\$0	\$31,907	\$0	100%
7	62	60	\$89,554	\$0	\$33,502	\$0	100%
8	63	61	\$92,241	\$0	\$35,178	\$0	100%
9	64	62	\$95,008	\$0	\$36,936	\$0	100%
10	65	63	\$97,858	\$65,239	\$0	\$23,270	100%
11	66	64	\$99,786	\$13,439	\$0	\$24,433	99%
12	67	65	\$101,741	\$13,842	\$0	\$25,655	98%
13	68	66	\$103,724	\$14,258	\$0	\$26,938	97%
14	69	67	\$105,734	\$14,685	\$0	\$28,285	96%
15	70	68	\$107,772	\$75,629	\$0	\$29,699	95%
16	71	69	\$109,837	\$15,580	\$0	\$31,184	94%
17	72	70	\$111,928	\$16,047	\$0	\$32,743	93%
18	73	71	\$114,046	\$16,528	\$0	\$34,380	92%
19	74	72	\$116,191	\$17,024	\$0	\$36,099	91%
20	75	73	\$118,362	\$17,535	\$0	\$37,904	90%



- **Recurring Yearly Expenses:** These are basic living expenses. Includes rent/mortgage, grocery, auto, medical, household, entertainment, utilities, insurance, travel and miscellaneous expenses. Taxes are **NOT** included – they are program calculated.
- **Special Expenses:** These are non-recurring, special expenses on items like kid's education, medical costs (including long term care) and miscellaneous expenses (vacations, home renovations, weddings, etc.)
- **Retirement Expense:** Expense in retirement is a % of pre-retirement expense
- **Expense Inflation:** This is rate of inflation. Expenses increase by this % each year
- **Expense Deflation in Retirement:** This is your expected reduction in retirement expense after a certain age. Expenses reduce each subsequent year by the % and starting age provided

Inputs & Assumptions – *Savings*

Savings

	Husband	Wife			
401k Contribution	10.0%	15.0%			
Company Match	3.0%	3.0%			
401k - Traditional or Roth	1	1			
IRA Contribution	\$7,000	\$7,000			
IRA - Traditional or Roth	2	2			
Health Savings Account	\$3,550	\$3,550			
529 Plan (Amt Stop Age)	\$3,000	60			
Catchup Contributions	Go to Detailed_Inputs Tab				
Calculated 1st Yr After Tax Svg	\$17,635				
Current Savings					
Traditional 401k	\$400,000	\$150,000			
Roth 401k	\$0	\$0			
Traditional IRA	\$50,000	\$15,000			
Roth IRA	\$50,000	\$15,000			
Health Savings Account	\$20,000	\$20,000			
529 Plan	\$80,000				
Taxable Accounts	\$100,000				
Hsb 401k Catchup	Hsb IRA Catchup	Hsb HSA Catchup	Wife 401k Catchup	Wife IRA Catchup	Wife HSA Catchup
\$7,500	\$1,000	\$1,000	\$7,500	\$1,000	\$1,000

Year	Hsb Age	Wife Age	Annual Savings												529 Plan		
			Husband						Wife								
401k	401k Match	401k Catchup	401k - Trad/Roth	IRA	IRA - Trad/Roth	HSA	401k	401k Match	401k Catchup	401k - Trad/Roth	IRA	IRA - Trad/Roth	HSA				
1	56	54	\$14,000	\$4,200	\$7,500	1	\$8,000	2	\$4,550	\$9,000	\$1,800	\$7,500	1	\$8,000	2	\$3,550	\$3,000
2	57	55	\$14,280	\$4,284	\$7,500	1	\$8,000	2	\$4,550	\$9,180	\$1,836	\$7,500	1	\$8,000	2	\$4,550	\$3,000
3	58	56	\$14,566	\$4,370	\$7,500	1	\$8,000	2	\$4,550	\$9,364	\$1,873	\$7,500	1	\$8,000	2	\$4,550	\$3,000
4	59	57	\$14,857	\$4,457	\$7,500	1	\$8,000	2	\$4,550	\$9,551	\$1,910	\$7,500	1	\$8,000	2	\$4,550	\$3,000
5	60	58	\$15,154	\$4,546	\$7,500	1	\$8,000	2	\$4,550	\$9,742	\$1,948	\$7,500	1	\$8,000	2	\$4,550	\$3,000
6	61	59	\$15,457	\$4,637	\$7,500	1	\$8,000	2	\$4,550	\$9,937	\$1,987	\$7,500	1	\$8,000	2	\$4,550	\$0
7	62	60	\$15,766	\$4,730	\$7,500	1	\$8,000	2	\$4,550	\$10,135	\$2,027	\$7,500	1	\$8,000	2	\$4,550	\$0
8	63	61	\$16,082	\$4,824	\$7,500	1	\$8,000	2	\$4,550	\$10,338	\$2,068	\$7,500	1	\$8,000	2	\$4,550	\$0
9	64	62	\$16,403	\$4,921	\$7,500	1	\$8,000	2	\$4,550	\$10,545	\$2,109	\$7,500	1	\$8,000	2	\$4,550	\$0
10	65	63	\$16,731	\$5,019	\$7,500	1	\$8,000	2	\$4,550	\$10,756	\$2,151	\$7,500	1	\$8,000	2	\$4,550	\$0
11	66	64	\$0	\$0	\$0	1	\$0	2	\$4,550	\$10,971	\$2,194	\$7,500	1	\$8,000	2	\$4,550	\$0
12	67	65	\$0	\$0	\$0	1	\$0	2	\$4,550	\$11,190	\$2,238	\$7,500	1	\$8,000	2	\$4,550	\$0



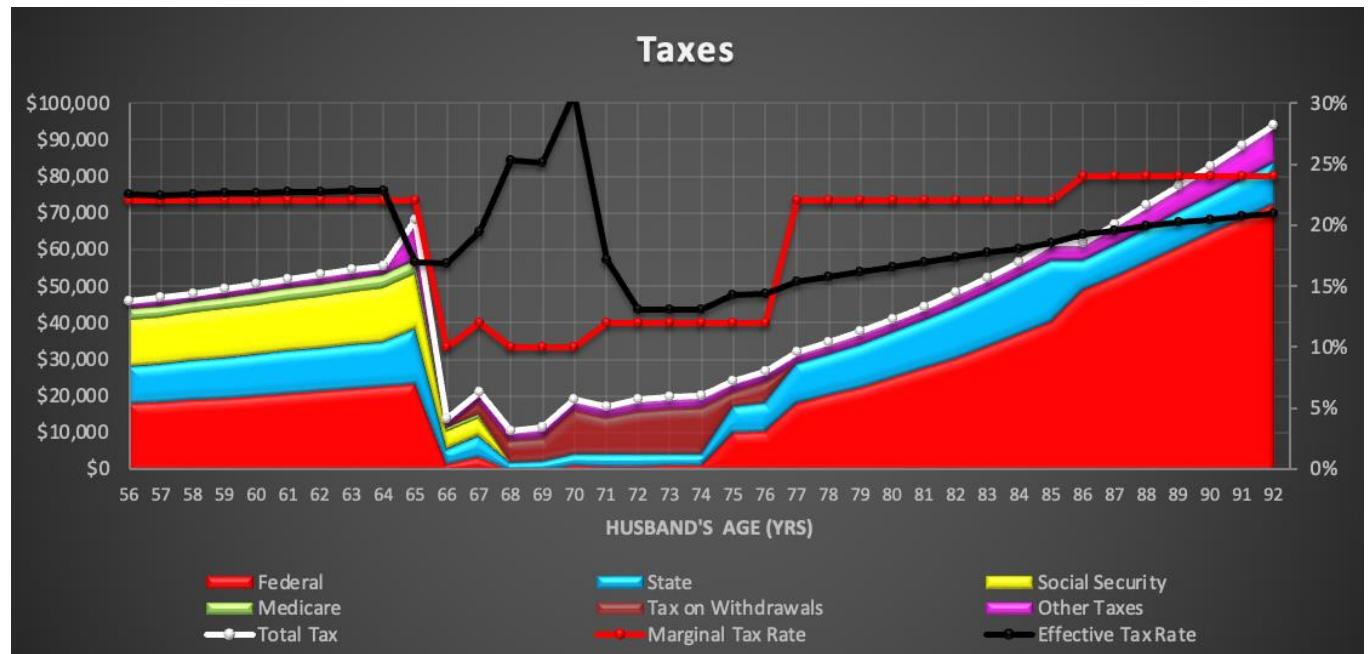
- IRA/401k: 1 = Traditional; 2 = Roth
- After Tax Savings: These are auto-calculated based on yearly income, expenses and calculated taxes. **This money is assumed to be fully invested in the Taxable account. Make sure that the amount makes sense to you.** If not, modify your expenses and re-run tool.

Inputs & Assumptions – *Tax Calculation*

Tax Information

Federal Tax Filing Status (S, M, H)	M	
Effective State and Local Tax Rate	5%	
Other Taxes, Deductions & Credits	Go to Detailed_Inputs Tab	
Yr. 1 Eff. Tax Rate Marginal Tax Rate	22.5%	22.0%

- Your taxes (Federal, State & Local, Social Security, Medicare, Cap Gains, Property) are calculated by the Tool based on the information provided above
- Federal Tax: S = Single, H = Head of Household, M= Married filing Jointly
- State/Local Tax: This is calculated as a % of your gross income
- Tax Tables: S = standard (current) IRS tax tables; C = your own, custom tax tables
- Effective Tax Rate: This is calculated as Total Tax divided Total Income (including withdrawals from traditional accounts)



Real Estate		Property		Charity		# of Exemptions	Investment Amount		Add'l Surtax		Use Chained CPI Index		Chained CPI Index Value		RMD Age																														
Tax Rate		Tax					\$250,000		3.80%		1		2.04%		Hsb		Wife																												
0.7%		\$300		0.25%			2				1		2.04%		75		75																												
Tax Tables																																													
Itemized Deductions, Exemptions, Taxes & Credits																																													
Year	Hsb Age	Wife Age	Std or Custom	Filing Status	SALT Deduction	Real Estate Tax	Property Tax	Charity	Mortgage Interest	Miss. Deductions	Std Deduction	#	Exemptions	Other Taxes	Tax Credits	LT Cap Gains Tax	Social Security	Medicare	Tax Brackets & Taxes																										
																Brkt1	Rate1	Brkt2	Rate2	Medicare Tax	Brkt1	Rate1	Rate2	Prog1	Brkt2	Rate2	Prog2	Brkt3	Rate3	Prog3	Brkt4	Rate4	Prog4	Brkt5	Rate5	Prog5	Brkt6	Rate6	Prog6	Brkt7	Rate7	Roth 401k			
1	56	54	S	M	5.0%	\$10,000	\$1,785	\$300	\$503	3,338	\$0	\$29,200	2	\$0	\$0	\$0	\$94,050	15%	\$583,750	20%	1.45%	\$250,000	0.90%	\$2,900	\$3,200	\$30,400	10%	\$10,852	\$20,100	12%	\$34,337	\$36,900	22%	\$78,221	\$487,450	32%	\$111,357	\$71,200	35%	\$196,670	\$71,200	37%			
2	57	55	S	M	5.0%	\$10,000	\$1,802	\$300	\$503	3,338	\$0	\$29,200	2	\$0	\$0	\$0	\$94,050	15%	\$583,750	20%	1.45%	\$250,000	0.90%	\$2,900	\$3,200	\$30,400	10%	\$10,852	\$20,100	12%	\$34,337	\$36,900	22%	\$78,221	\$487,450	32%	\$111,357	\$71,200	35%						
3	58	56	S	M	5.0%	\$10,000	\$1,857	\$315	\$503	3,338	\$0	\$29,200	2	\$0	\$0	\$0	\$97,926	15%	\$607,610	20%	1.45%	\$250,000	0.90%	\$2,900	\$3,200	\$30,400	10%	\$10,852	\$20,100	12%	\$34,337	\$36,900	22%	\$78,221	\$487,450	32%	\$111,357	\$71,200	35%						
4	59	57	S	M	5.0%	\$10,000	\$1,894	\$318	\$506	3,244	\$0	\$31,024	2	\$0	\$0	\$0	\$99,934	15%	\$620,209	20%	1.45%	\$250,000	0.90%	\$3,078	\$24,649	\$10%	\$2,465	\$100,190	12%	\$11,530	\$181,895	22%	\$36,482	\$177,877	32%	\$118,312	\$776,869	35%	\$208,963	\$71,200	37%				
5	60	58	S	M	5.0%	\$10,000	\$1,932	\$325	\$507	3,244	\$0	\$31,024	2	\$0	\$0	\$0	\$101,963	15%	\$632,862	20%	1.45%	\$250,000	0.90%	\$3,139	\$25,152	\$10%	\$2,515	\$176,717	12%	\$11,765	\$176,965	22%	\$37,226	\$146,198	32%	\$120,726	\$71,200	37%							
6	61	59	S	M	5.0%	\$10,000	\$1,971	\$331	\$509	3,178	\$0	\$32,302	2	\$0	\$0	\$0	\$104,043	15%	\$645,772	20%	1.45%	\$250,000	0.90%	\$3,202	\$25,665	\$10%	\$2,556	\$104,319	12%	\$12,005	\$222,411	22%	\$37,985	\$244,688	34%	\$208,532	\$59,240	32%	\$123,188	\$808,888	35%	\$217,566	\$71,200	37%	
7	62	60	S	M	5.0%	\$10,000	\$2,010	\$338	\$507	3,180	\$0	\$32,961	2	\$0	\$0	\$0	\$106,165	15%	\$659,94	20%	1.45%	\$250,000	0.90%	\$3,266	\$26,189	10%	\$2,619	\$106,447	12%	\$12,250	\$226,948	22%	\$38,760	\$433,352	34%	\$208,297	\$50,241	32%	\$125,701	\$25,389	35%	\$222,003	\$71,200	37%	
8	63	61	S	M	5.0%	\$10,000	\$2,049	\$345	\$503	3,008	\$0	\$30,583	2	\$0	\$0	\$0	\$108,331	15%	\$672,398	20%	1.45%	\$250,000	0.90%	\$3,331	\$26,723	10%	\$2,672	\$109,619	12%	\$12,500	\$231,578	22%	\$39,551	\$442,192	34%	\$209,098	\$561,466	32%	\$128,266	\$842,227	35%	\$223,539	\$71,200	37%	
9	64	62	S	M	5.0%	\$10,000	\$2,091	\$351	\$506	2,623	\$0	\$34,320	2	\$0	\$0	\$0	\$110,541	15%	\$698,162	20%	1.45%	\$250,000	0.90%	\$3,398	\$27,268	10%	\$2,727	\$110,835	12%	\$12,755	\$231,302	22%	\$40,358	\$451,213	34%	\$211,936	\$572,920	32%	\$130,885	\$859,409	35%	\$231,531	\$71,200	37%	
10	65	63	S	M	5.0%	\$10,000	\$2,133	\$359	\$503	2,523	\$0	\$30,705	2	\$0	\$0	\$0	\$112,705	15%	\$700,121	20%	1.45%	\$250,000	0.90%	\$3,461	\$27,809	10%	\$2,747	\$113,090	12%	\$12,915	\$230,600	22%	\$41,130	\$460,500	34%	\$213,605	\$584,833	32%	\$131,205	\$864,291	35%	\$232,245	\$71,200	37%	
11	66	64	S	M	5.0%	\$10,000	\$2,171	\$363	\$503	2,453	\$0	\$30,744	2	\$0	\$0	\$0	\$114,967	15%	\$702,389	20%	1.45%	\$250,000	0.90%	\$3,526	\$28,346	10%	\$2,766	\$114,422	12%	\$13,021	\$231,051	22%	\$41,936	\$474,553	34%	\$214,205	\$593,277	32%	\$131,745	\$874,205	35%	\$232,851	\$71,200	37%	
12	67	65	S	M	5.0%	\$10,000	\$2,210	\$328	\$503	2,383	\$0	\$36,493	2	\$0	\$0	\$0	\$113,446	15%	\$738,963	20%	1.45%	\$250,000	0.90%	\$3,681	\$29,931	10%	\$2,802	\$113,263	12%	\$13,651	\$261,053	22%	\$42,728	\$409,395	34%	\$215,097	\$103,295	35%	\$245,691	\$71,200	37%				
13	68	66	S	M	5.0%	\$10,000	\$2,248	\$363	\$503	2,313	\$0	\$36,493	2	\$0	\$0	\$0	\$113,446	15%	\$738,963	20%	1.45%	\$250,000	0.90%	\$3,681	\$29,931	10%	\$2,802	\$113,263	12%	\$13,651	\$261,053	22%	\$42,728	\$409,395	34%	\$215,097	\$103,295	35%	\$245,691	\$71,200	37%				

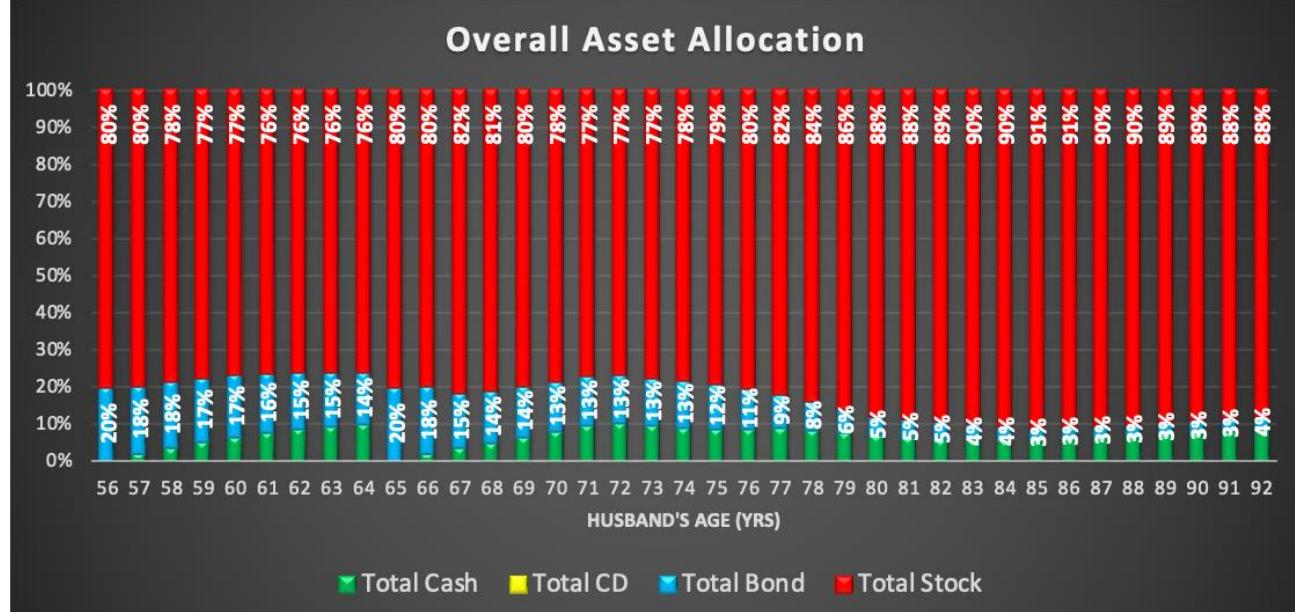
Inputs & Assumptions – Asset Allocation

Asset Allocation

All Accounts	Stocks	Bonds	CD's	Cash	Rebal?
Taxable Accounts	80%	20%	0%	0%	0
Pre Tax Accounts	80%	20%	0%	0%	0
In Retirement					
All Accounts	Stocks	Bonds	CD's	Cash	Rebal?
Taxable Accounts	80%	20%	0%	0%	0
Pre Tax Accounts	80%	20%	0%	0%	0

Account	Cash	CDs	Bonds	Stocks	Total
After Tax AC	\$0	\$0	\$20,000	\$80,000	\$100,000
Hsb Traditional AC	\$0	\$0	\$90,000	\$360,000	\$450,000
Wife Traditional AC	\$0	\$0	\$33,000	\$132,000	\$165,000
Hsb Roth AC	\$0	\$0	\$10,000	\$40,000	\$50,000
Wife Roth AC	\$0	\$0	\$3,000	\$12,000	\$15,000
HSA AC	\$0	\$0	\$8,000	\$32,000	\$40,000
529 Plan AC	\$0	\$0	\$16,000	\$64,000	\$80,000
Total - All AC	\$0	\$0	\$180,000	\$720,000	\$900,000
	0%	0%	20%	80%	100%

Summary of your Current Account Balances and Asset Allocation



- Asset Allocation:** These are the 4 asset allocation categories for your investment accounts. They represent “high risk”, “low risk”, “short-term” and “cash” type investment options
- Rebalancing:** These are the rebalancing options you have chosen for your investment accounts. 1 = annual rebalancing, 0 = no annual rebalancing
- Life Modeling:** Any changes you made to your pre & post retirement asset allocation and rebalancing for each of your accounts (to model your specific situation) are shown in the summary table below

Year	Hsb Age	Wife Age	Roth 401k												Husband Traditional 401k/IRA												Wife Traditional 401k/IRA												Husband Roth 401k/IRA												Wife Roth 401k/IRA												HSA												529 Plan											
			Tax Accounts				Husband Traditional 401k/IRA				Wife Traditional 401k/IRA				Husband Roth 401k/IRA				Wife Roth 401k/IRA				HSA				529 Plan																																																											
			Stocks	Bonds	CDs	Cash	Re-balance	Re-invest Dividends	Stocks	Bonds	CDs	Cash	Re-balance	Re-invest Dividends	Stocks	Bonds	CDs	Cash	Re-balance	Re-invest Dividends	Stocks	Bonds	CDs	Cash	Re-balance	Re-invest Dividends	Stocks	Bonds	CDs	Cash	Re-balance	Re-invest Dividends	Stocks	Bonds	CDs	Cash	Re-balance	Re-invest Dividends	Stocks	Bonds	CDs	Cash	Re-balance	Re-invest Dividends	Stocks	Bonds	CDs	Cash	Re-balance	Re-invest Dividends																																				
1	56	54	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0																																										
2	57	55	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0																																																
3	58	56	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0																																																
4	59	57	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0																																																
5	60	58	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0																																																
6	61	59	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0																																																
7	62	60	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0																																																
8	63	61	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0																																																
9	64	62	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0																																																
10	65	63	80%	20%	0%	0%	0	1	0	80%	20%	0%	0%	1	0	80%	20%	0%	0%	1	0	80%	20%	0%	0%	1	0	80%	20%	0%	0%	1	0	80%	20%	0%	0%	1	0																																															
11	66	64	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0																																																
12	67	65	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0	80%	20%	0%	0%	0	0																																																

Inputs & Assumptions – *Rate of Return*

Rate of Return

Account	Stocks	Bonds	CD's	Cash	Re-Inv Dividends?	
Compounding Rate of Return	6.0%	1.0%	0.0%	0.0%	0	Before Retire
Dividend Yield	2.0%	3.5%	2.5%	0.1%	0	In Retirement

Year	Hsb Age	Wife Age	Stock Rate of Return					
			After Tax	Trad 401k	Trad IRA	Roth 401k	Roth IRA	HSA
1	56	54	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
2	57	55	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
3	58	56	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
4	59	57	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
5	60	58	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
6	61	59	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
7	62	60	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
8	63	61	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
9	64	62	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
10	65	63	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
11	66	64	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
12	67	65	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%

- **Rate of Return:** This is your assumed rate of return for each types of investment vehicle. **It is important that reasonable, market-based returns be used** to get meaningful net worth projections. Unrealistic rate of return assumptions will lead to unattainable financial goals.
- **Re-investing Dividends:** Dividends can be re-invested or distributed as cash. 0 = do not reinvest; 1 = reinvest dividend
- **Sample Portfolios:** across the risk/reward spectrum have been provided, along with appropriate rates of return and dividend yields to use for portfolio projections
- There are no separate entries for pre and post retirement returns. This is because investment returns depend on the investment vehicle only. Risk mitigation in retirement is done by appropriate asset allocation amongst the investment classes.
- **Life Modeling:** Rate of return is **not a controllable parameter and cannot be changed**. **Black swan type events/impact of recessions, etc.** can be simulated by running the historical sequence of returns macro

Inputs & Assumptions – *Non-Standard Withdrawals & Roth Conversions*

Default Withdrawal Strategy & Priority

Account	Stocks	Bonds	CD's	Cash	Strategy
After Tax Savings	4	3	2	1	1
Husband Traditional Accounts	4	3	2	1	2
Wife Traditional Accounts	4	3	2	1	2
Husband Roth Accounts	4	3	2	1	3
Wife Roth Accounts	4	3	2	1	3
Health Savings Account	4	3	2	1	Medical
529 Plan	4	3	2	1	Education

Non Std Withdrawals

Year	Hsb Age	Wife Age	Roth 401k			
			Traditional AC	Roth AC	Traditional AC	Roth AC
1	56	54	\$0	\$0	\$0	\$0
2	57	55	\$0	\$0	\$0	\$0
3	58	56	\$0	\$0	\$0	\$0
4	59	57	\$0	\$0	\$0	\$0
5	60	58	\$0	\$0	\$0	\$0
6	61	59	\$0	\$0	\$0	\$0
7	62	60	\$0	\$0	\$0	\$0
8	63	61	\$0	\$0	\$0	\$0
9	64	62	\$0	\$0	\$0	\$0
10	65	63	\$0	\$0	\$0	\$0
11	66	64	\$0	\$0	\$0	\$0
12	67	65	\$0	\$0	\$0	\$0

- Non-Standard Withdrawal: The default withdrawal strategy and priority can be over-ruled by specifying cash withdrawals from Traditional or Roth accounts for any lifetime year

Roth Conversions

Year	Hsb Age	Wife Age	Roth 401k	
			Husband	Wife
1	56	54	\$0	\$0
2	57	55	\$0	\$0
3	58	56	\$0	\$0
4	59	57	\$0	\$0
5	60	58	\$0	\$0
6	61	59	\$0	\$0
7	62	60	\$0	\$0
8	63	61	\$0	\$0
9	64	62	\$0	\$0
10	65	63	\$0	\$0
11	66	64	\$0	\$0
12	67	65	\$0	\$0

- Roth Conversions: Roth conversion amounts can be specified for any lifetime year

Inputs & Assumptions – *Non-Liquid Assets*

Non-Liquid Assets

Personal Home		
Today's Value of Your Home	\$250,000	
Loan Amount	\$200,000	
Term	30	
Interest Rate	3.75%	
Term Remaining	10	
Appreciation	2.0%	
Today's Home Equity	\$157,434	
Yearly Mortgage Interest Monthly Payment	\$3,338	\$926
Rental Property		
Current Value of Rental Property	\$125,000	
Buy Price of Rental Property	\$100,000	
Loan Amount	\$80,000	
Term	15	
Interest Rate	3.75%	
Term Remaining	10	
Appreciation	2.0%	
Rent per Year	\$10,000	
Yearly Increase in Rent	2.0%	
Expenses per Year	\$3,000	
Yearly Mortgage Interest Monthly Payment	\$2,097	\$582
Yearly Increase in Expenses	3.0%	
Depreciation	27.5	
Sell Property at Age	65	
Today's Equity	\$66,858	
Yearly Rental Income	\$2,782	
Business Property		
Business Equity Today	\$0	
Buy Price of Business	\$0	
Annual Appreciation	0.0%	
Sell Business at Age	65	

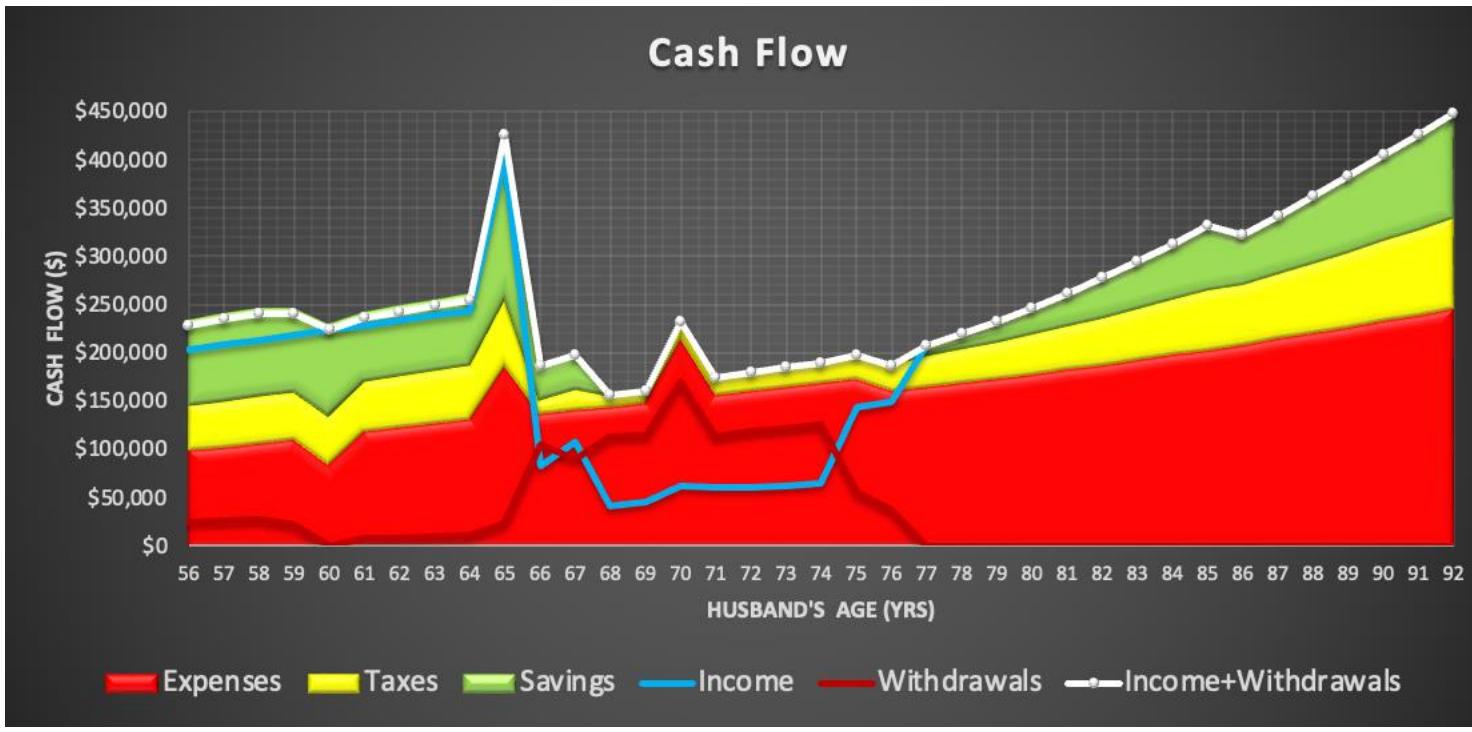
- Personal Home: Information on your personal home is used to calculate your Total Net Worth
- Rental Property: If you have rental property, the Tool calculates yearly rental income and capital gains when you sell the property
- Business: For users with business income, the Tool calculates the capital gains when business is sold
- Life Modeling – Not applicable for non-liquid assets

CASH FLOW ANALYSIS



- **Cash Flow Analysis** gives you information on your Money Flow. It balances your Income and Withdrawals (in retirement) against your Expenses, Taxes and Savings of leftover income
- **Pie Charts** provide you detailed information on Income, Withdrawals, Expenses, Taxes & Savings in any given year of your life
- **Use** Cash Flow Analysis data to increase **awareness and control of your finances**.
Adjust your expenses and savings to meet your retirement goals

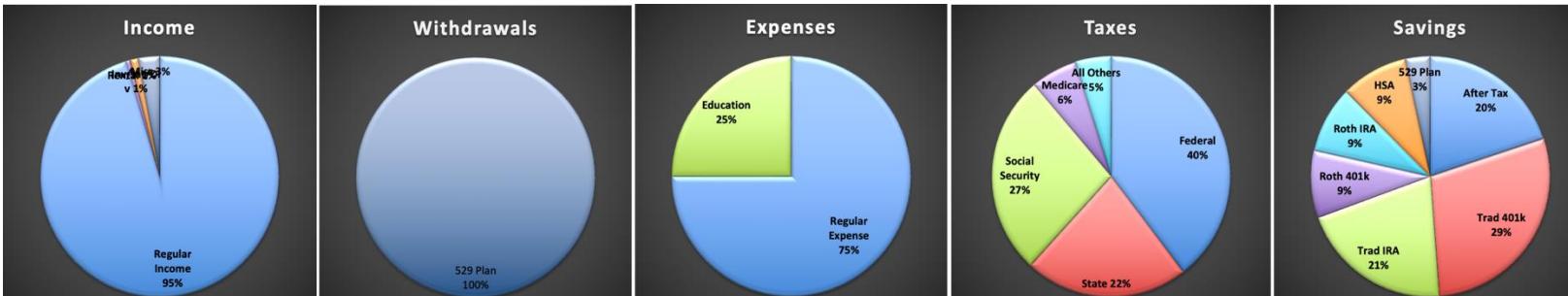
Cash Flow Analysis – *Over Lifetime*



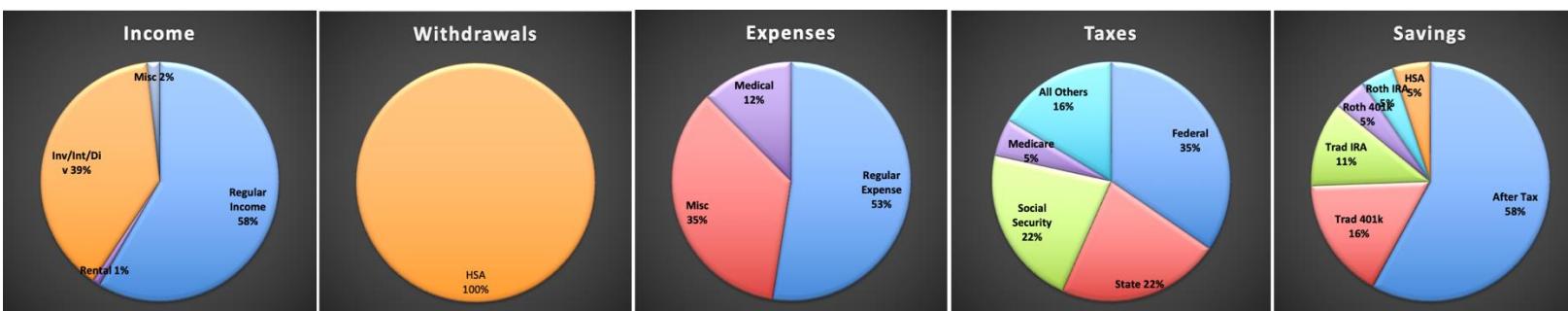
This is how your income, expenses, taxes, savings and withdrawals evolve over your lifetime

Hsb Age	Expenses	Taxes	Savings	Income	Withdrawals	Income+Withdrawals
56	\$100,000	\$45,832	\$88,735	\$203,587	\$25,000	\$228,587
57	\$103,500	\$46,790	\$90,370	\$208,290	\$26,250	\$234,540
58	\$107,130	\$48,018	\$91,872	\$213,215	\$27,563	\$240,778
59	\$110,895	\$49,279	\$86,035	\$218,278	\$21,564	\$239,842
60	\$84,413	\$50,533	\$94,859	\$223,310	\$0	\$223,310
61	\$118,853	\$51,863	\$72,118	\$228,653	\$7,556	\$236,210
62	\$123,056	\$53,107	\$72,759	\$233,643	\$8,522	\$242,165
63	\$127,418	\$54,377	\$73,412	\$238,740	\$9,574	\$248,314
64	\$131,944	\$55,675	\$74,078	\$243,951	\$10,716	\$254,667
65	\$186,367	\$68,106	\$177,947	\$401,979	\$23,270	\$425,249
66	\$137,658	\$13,815	\$37,785	\$82,178	\$104,866	\$187,044
67	\$141,239	\$21,034	\$38,028	\$108,236	\$89,827	\$198,063
68	\$144,920	\$10,633	\$0	\$41,948	\$113,604	\$155,552
69	\$148,705	\$11,458	\$0	\$45,557	\$114,606	\$160,162
70	\$213,100	\$18,968	\$0	\$61,597	\$170,471	\$232,068
71	\$156,600	\$17,250	\$0	\$60,444	\$113,407	\$173,851
72	\$160,718	\$18,947	\$0	\$61,163	\$118,503	\$179,668
73	\$164,955	\$19,621	\$0	\$62,666	\$121,910	\$184,576
74	\$169,315	\$20,027	\$0	\$64,232	\$125,109	\$189,342
75	\$173,801	\$24,159	\$0	\$143,214	\$54,745	\$197,960
76	\$160,357	\$26,835	\$0	\$149,614	\$37,578	\$187,193
77	\$164,569	\$31,901	\$10,792	\$207,262	\$0	\$207,262
78	\$168,905	\$34,647	\$15,784	\$219,315	\$0	\$219,315
79	\$173,369	\$37,636	\$21,316	\$232,320	\$0	\$232,320
80	\$177,967	\$40,886	\$27,494	\$246,347	\$0	\$246,347
81	\$182,703	\$44,402	\$34,312	\$261,418	\$0	\$261,418
82	\$187,583	\$48,186	\$41,768	\$277,537	\$0	\$277,537
83	\$192,611	\$52,238	\$49,866	\$294,715	\$0	\$294,715
84	\$197,794	\$56,553	\$58,584	\$312,931	\$0	\$312,931
85	\$203,136	\$61,776	\$67,265	\$332,177	\$0	\$332,177
86	\$208,644	\$61,823	\$51,491	\$321,958	\$0	\$321,958
87	\$214,325	\$66,854	\$80,507	\$341,686	\$0	\$341,686
88	\$220,185	\$72,048	\$89,890	\$362,123	\$0	\$362,123
89	\$226,231	\$77,367	\$79,557	\$383,155	\$0	\$383,155
90	\$232,470	\$82,794	\$89,374	\$404,638	\$0	\$404,638
91	\$238,910	\$88,354	\$99,125	\$426,388	\$0	\$426,388
92	\$245,558	\$93,853	\$108,770	\$448,181	\$0	\$448,181

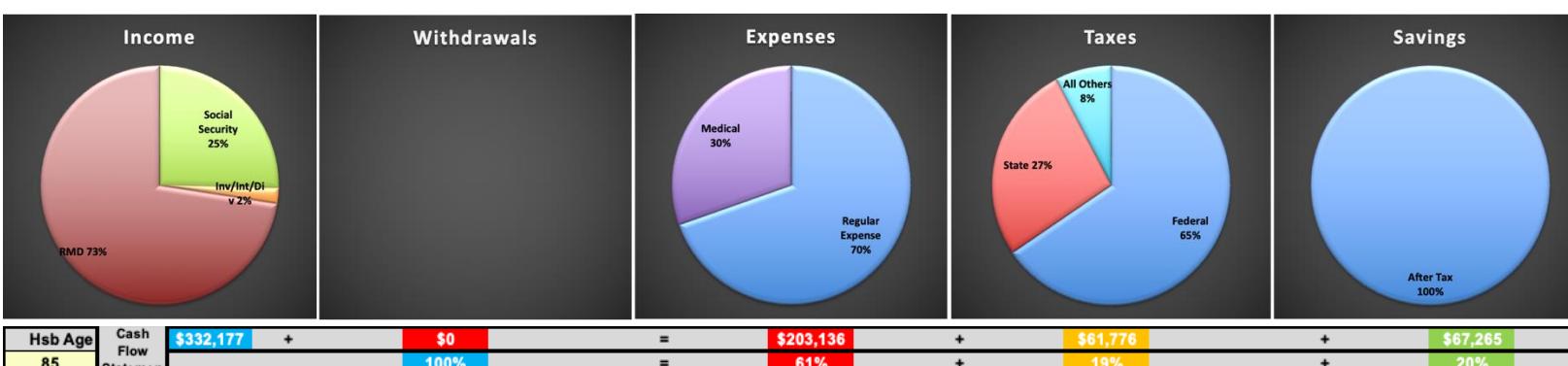
Cash Flow Analysis – *By Year*



Hsb Age	Cash Flow Statement	\$209,567	+	\$25,000	=	\$100,000	+	\$45,832	=	\$43%	+	\$88,735	=	\$38%
56														



Hsb Age	Cash Flow Statement	\$409,150	+	\$23,270	=	\$186,367	+	\$68,106	=	\$43%	+	\$177,947	=	41%
65														



Hsb Age	Cash Flow Statement	\$332,177	+	\$0	=	\$203,136	+	\$61,776	=	61%	+	\$67,265	=	20%
85														

- The **Cash Flow Analysis** and pie plots gives you information on Money Flow. It tells you where your money is coming from (income or withdrawals from your savings accounts) and where it is going (expenses, taxes or savings)
- Pie Charts** provide a detailed assessment of cash flow by year.
- Look at how your **sources of income** change over the years; when you **start making withdrawals** and how **RMD** kicks in
- See how your **expenses change over time** including **special expenses** for education, medical and other purposes
- See how much and which taxes** you are paying
- See how much you are **saving each year** and to which accounts
- And finally.... See what **percentage of your total income goes towards expenses, taxes and savings**

NET WORTH ASSESSMENT

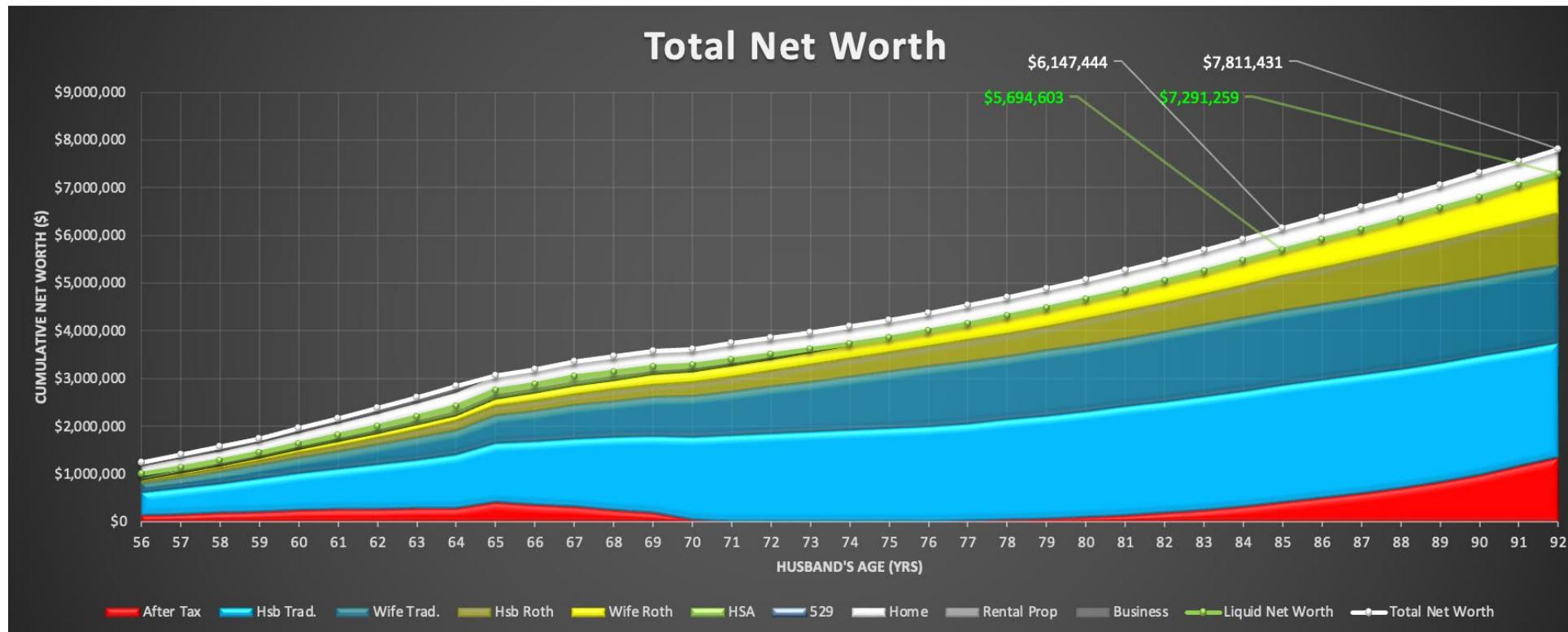


- **Net Worth Assessment** gives you information on your Liquid & Total Net Worth (including Non-Liquid assets).
- **Observe** how your net worth changes over your lifetime. **Pie Charts** provide you a detailed breakdown of your account balances and how they change in different stages of your life
- Find the answer to your **two main questions** – **Can I Retire at Desired Age? And Will I Run Out of Money in Retirement?**
- **Carefully review** your net worth calculation using the **Fixed Rate of Return** assumption and the **likelihood of meeting retirement goals** using **Monte Carlo** and **Historical S&P 500 Index Sequence of Return Simulations**

Net Worth – *Fixed Rate of Return*

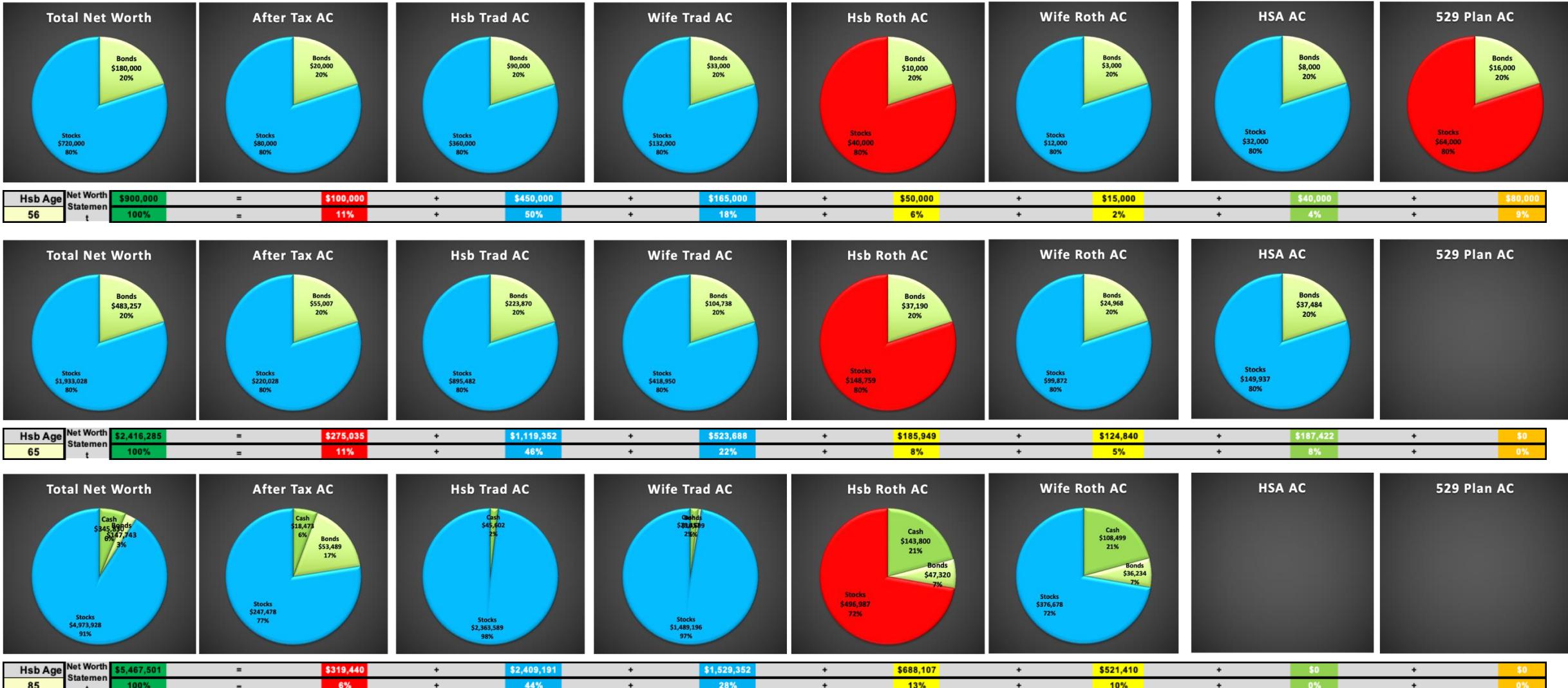
RESULTS	Husband	Wife	Estate Plan/ Target
Can you Retire at Desired Age?	YES	YES	
Liquid Net Worth at Life Expectancy Age	\$5,694,603	\$7,291,259	\$1,000,000
Total Net Worth (\$+Prop.) at Life Exp. Age	\$6,147,444	\$7,811,431	

This is your **Net Worth** and if you can retire at your desired age without running out of money **based on a Fixed Rate of Return**



- **Fixed Rate of Return** assumes a constant rate of return each year for each type of investment in all user accounts
- **This projection may not be realistic** because market returns change significantly each year. The rate of return assumptions generally hold true over long periods of time; this projection shows what your net worth, **on average**, will be over a long period of time
- **If you are close to retirement**, a significant market downturn can negatively impact your ability to meet your life expectancy and estate plan goals
- A **Monte Carlo Simulation** that accounts for market uncertainty is a much better predictor of the robustness of your financial plan

Net Worth Analysis – *By Year*



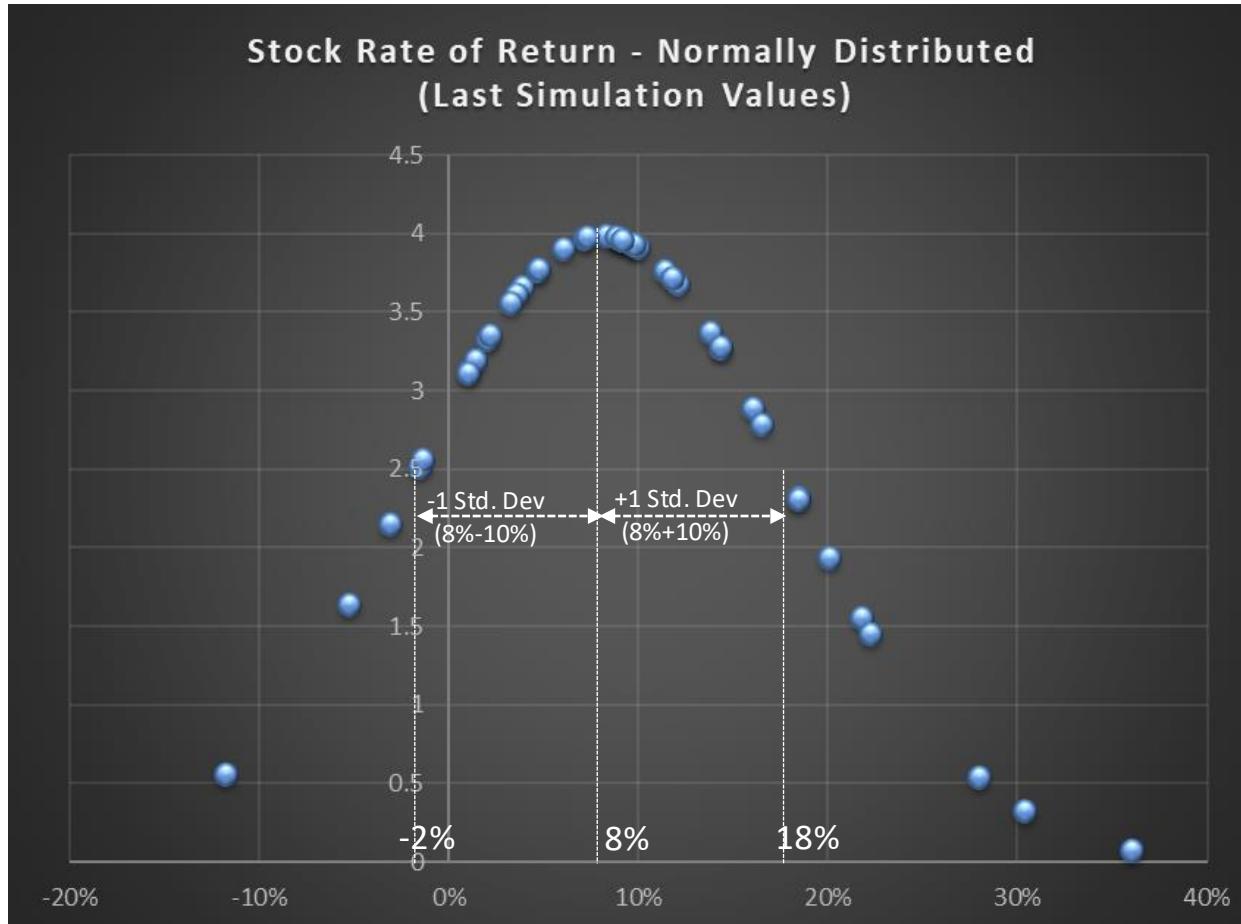
The **Net Worth Analysis** by year shows how your Net Worth and Asset Allocation change over the years. It also shows a breakdown of balances in each of your investment accounts

Net Worth Analysis – *By Year*

Hsb Age	After Tax AC	Hsb Trad	Wife Trad	Hsb Roth	Wife Roth	HSA	529 Plan	Home Equity	Rental Equity	Business Equity	Liquid Net Worth	Total Net Worth
56	\$121,033	\$490,215	\$188,751	\$59,687	\$23,587	\$51,532	\$60,162	\$170,210	\$74,242	\$0	\$994,967	\$1,239,419
57	\$147,974	\$552,184	\$221,382	\$72,225	\$33,546	\$64,993	\$40,805	\$183,383	\$81,863	\$0	\$1,133,109	\$1,398,355
58	\$177,646	\$618,374	\$256,354	\$85,591	\$44,195	\$79,354	\$18,564	\$196,966	\$89,728	\$0	\$1,280,076	\$1,566,770
59	\$202,618	\$689,036	\$293,804	\$99,831	\$55,571	\$94,665	\$0	\$210,973	\$97,846	\$0	\$1,435,524	\$1,744,343
60	\$237,657	\$764,437	\$333,879	\$114,994	\$67,714	\$110,979	\$3,100	\$225,417	\$106,226	\$0	\$1,632,760	\$1,964,403
61	\$249,476	\$844,861	\$376,735	\$131,131	\$80,666	\$128,350	\$0	\$240,315	\$114,876	\$0	\$1,811,220	\$2,166,411
62	\$258,119	\$930,606	\$422,537	\$148,297	\$94,473	\$146,839	\$0	\$255,681	\$123,806	\$0	\$2,000,871	\$2,380,358
63	\$266,651	\$1,021,991	\$471,460	\$166,549	\$109,181	\$166,507	\$0	\$271,531	\$133,026	\$0	\$2,202,339	\$2,606,896
64	\$275,035	\$1,119,352	\$523,688	\$185,949	\$124,840	\$187,422	\$0	\$287,881	\$142,545	\$0	\$2,416,285	\$2,846,711
65	\$401,756	\$1,231,295	\$583,007	\$207,791	\$142,221	\$187,118	\$0	\$304,749	\$0	\$0	\$2,753,187	\$3,057,936
66	\$348,693	\$1,319,595	\$646,178	\$222,694	\$160,691	\$186,062	\$0	\$310,844	\$0	\$0	\$2,883,914	\$3,194,757
67	\$309,652	\$1,412,670	\$713,429	\$238,404	\$180,312	\$183,977	\$0	\$317,060	\$0	\$0	\$3,038,443	\$3,355,504
68	\$244,303	\$1,510,804	\$763,093	\$254,967	\$192,879	\$170,612	\$0	\$323,402	\$0	\$0	\$3,136,657	\$3,460,059
69	\$174,128	\$1,614,292	\$815,467	\$272,434	\$206,132	\$154,791	\$0	\$329,870	\$0	\$0	\$3,237,244	\$3,567,114
70	\$41,946	\$1,723,452	\$870,710	\$290,858	\$220,110	\$136,251	\$0	\$336,467	\$0	\$0	\$3,283,327	\$3,619,795
71	\$1,724	\$1,798,139	\$928,990	\$310,296	\$234,857	\$114,702	\$0	\$343,196	\$0	\$0	\$3,388,708	\$3,731,904
72	\$56	\$1,834,740	\$990,488	\$330,808	\$250,418	\$89,829	\$0	\$350,060	\$0	\$0	\$3,496,338	\$3,846,398
73	\$2	\$1,873,619	\$1,055,393	\$352,456	\$266,841	\$61,289	\$0	\$357,062	\$0	\$0	\$3,609,600	\$3,966,661
74	\$0	\$1,916,989	\$1,123,908	\$375,310	\$284,176	\$28,705	\$0	\$364,203	\$0	\$0	\$3,729,088	\$4,093,291
75	\$0	\$1,951,947	\$1,196,246	\$399,438	\$302,479	\$0	\$0	\$371,487	\$0	\$0	\$3,850,111	\$4,221,598
76	\$0	\$1,975,665	\$1,272,634	\$424,919	\$321,807	\$0	\$0	\$378,917	\$0	\$0	\$3,995,024	\$4,373,941
77	\$11,153	\$2,037,554	\$1,301,943	\$451,831	\$342,219	\$0	\$0	\$386,495	\$0	\$0	\$4,144,700	\$4,531,195
78	\$28,252	\$2,099,185	\$1,332,384	\$480,259	\$363,781	\$0	\$0	\$394,225	\$0	\$0	\$4,303,860	\$4,698,085
79	\$52,311	\$2,160,144	\$1,363,934	\$510,293	\$386,560	\$0	\$0	\$402,109	\$0	\$0	\$4,473,242	\$4,875,351
80	\$84,460	\$2,219,020	\$1,396,560	\$542,029	\$410,629	\$0	\$0	\$410,151	\$0	\$0	\$4,652,698	\$5,062,850
81	\$125,914	\$2,274,142	\$1,430,218	\$575,569	\$436,066	\$0	\$0	\$418,355	\$0	\$0	\$4,841,908	\$5,260,263
82	\$177,965	\$2,324,743	\$1,464,227	\$611,018	\$462,949	\$0	\$0	\$426,722	\$0	\$0	\$5,040,903	\$5,467,625
83	\$241,993	\$2,370,036	\$1,497,450	\$648,491	\$491,367	\$0	\$0	\$435,256	\$0	\$0	\$5,249,336	\$5,684,592
84	\$319,440	\$2,409,191	\$1,529,352	\$688,107	\$521,410	\$0	\$0	\$443,961	\$0	\$0	\$5,467,501	\$5,911,462
85	\$411,163	\$2,441,350	\$1,558,920	\$729,996	\$553,175	\$0	\$0	\$452,840	\$0	\$0	\$5,694,603	\$6,147,444
86	\$492,826	\$2,465,634	\$1,584,670	\$774,291	\$586,764	\$0	\$0	\$461,897	\$0	\$0	\$5,904,185	\$6,366,082
87	\$589,215	\$2,481,156	\$1,605,823	\$821,136	\$622,286	\$0	\$0	\$471,135	\$0	\$0	\$6,119,616	\$6,590,751
88	\$701,680	\$2,487,040	\$1,621,796	\$870,684	\$659,856	\$0	\$0	\$480,558	\$0	\$0	\$6,341,056	\$6,821,614
89	\$831,573	\$2,482,440	\$1,632,006	\$923,094	\$699,597	\$0	\$0	\$490,169	\$0	\$0	\$6,568,710	\$7,058,879
90	\$980,183	\$2,466,564	\$1,635,876	\$978,539	\$741,637	\$0	\$0	\$499,972	\$0	\$0	\$6,802,799	\$7,302,771
91	\$1,148,653	\$2,438,705	\$1,632,850	\$1,037,198	\$786,113	\$0	\$0	\$509,972	\$0	\$0	\$7,043,520	\$7,553,492
92	\$1,338,146	\$2,398,269	\$1,622,408	\$1,099,264	\$833,172	\$0	\$0	\$520,171	\$0	\$0	\$7,291,259	\$7,811,431

The **Net Worth Analysis** by year shows how your Net Worth and Asset Allocation change over the years. It also shows a breakdown of balances in each of your investment accounts

Net Worth – *Monte Carlo Simulation Method*



A “typical” set of randomly selected rate of return values (based on a normal distribution) are used in a single Monte Carlo simulation (for each year of your life starting now to your life expectancy age)

Type of Simulation	Norm Dist
# of Simulations	1,000
Standard Deviation	10%

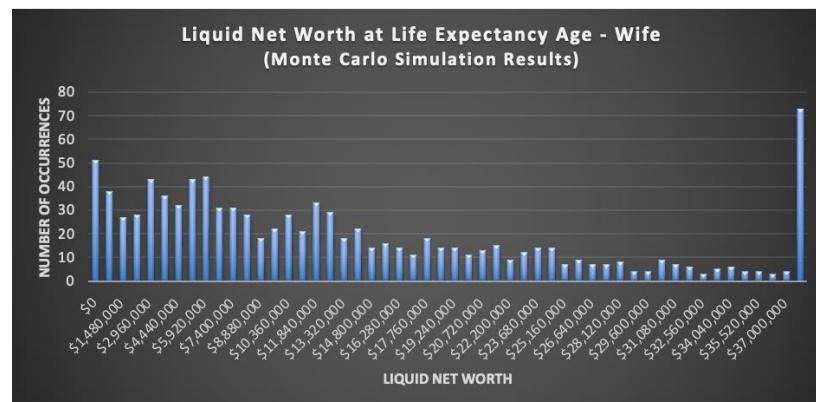
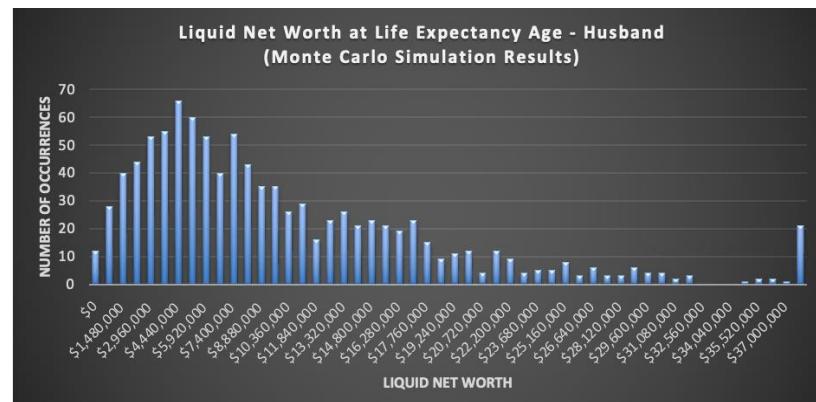
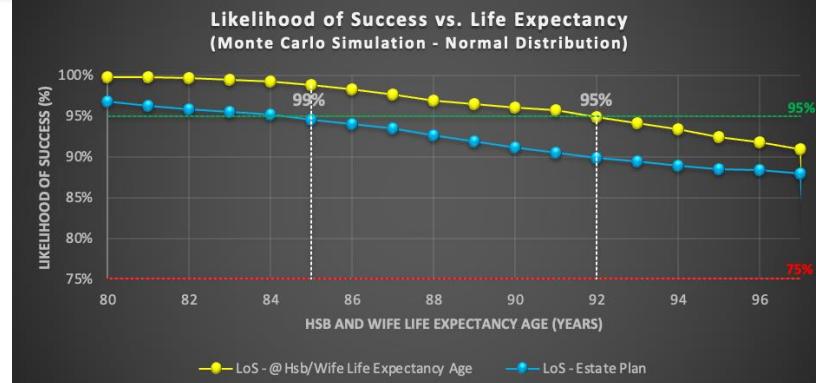
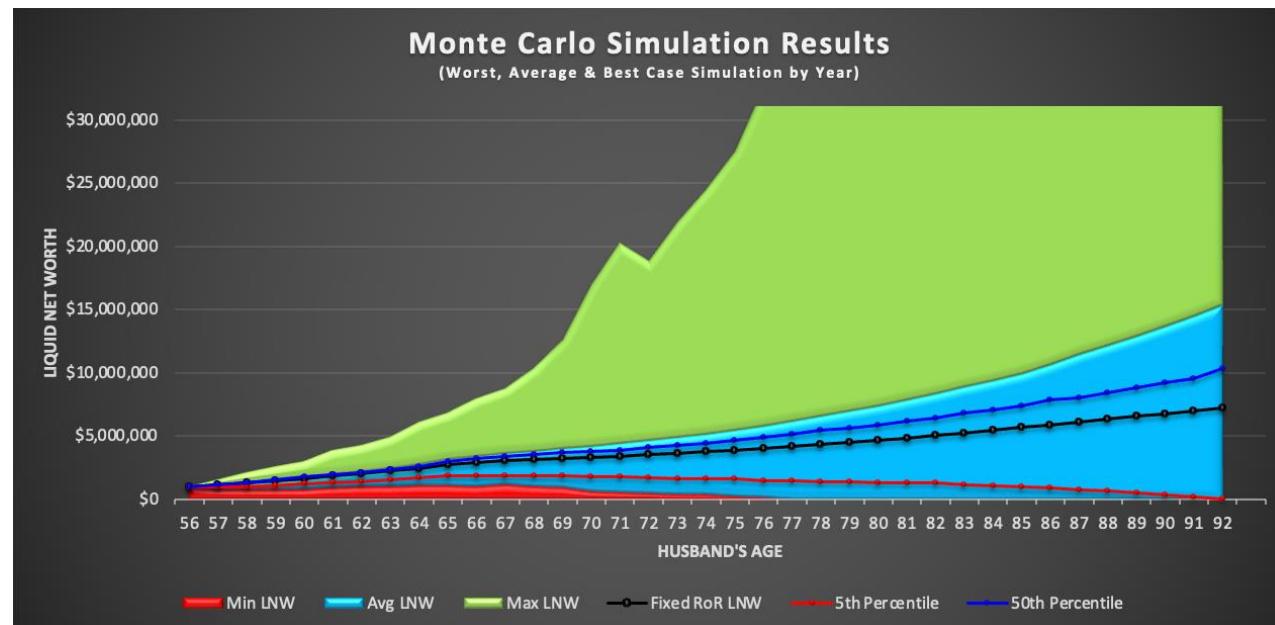
- **Monte Carlo Simulations** quantify the risk and uncertainty associated with market returns each year
- The “variation” in market returns is quantified by a “standard deviation” that signifies how much the rate of return will fluctuate from the average. A high value implies a large variation in market returns year-to-year
- A “normal distribution” (shown in the graph) is used to estimate the stock rate of return for each year of your financial lifecycle.
- A total of 1000 simulations are run to calculate the likelihood of success rate in meeting your retirement goals
- In simulation #1 the program will pick a random stock rate of return “dot” from the normal distribution and apply it to the husband’s current year. This will be repeated for each year upto life expectancy age. The liquid net worth is then calculated for this set of “lifetime” market returns for this 1st simulation
- This process is repeated a 1000 times and the liquid net worth is calculated for each of the 1000 simulations. From this, the program calculates how many simulations were successful i.e. husband and wife do not run out of money at their life expectancy age.... A probability of success is calculated from this.

Net Worth – Monte Carlo Simulation Results

RESULTS		Fixed Rate of Return Results		Monte Carlo Results	
Husband	Wife	Husband	Wife		
Can you Retire at Desired Age?	YES	YES	YES	MAYBE	
\$\$'s/Success % at Life Exp. Age	\$5,694,603	\$7,291,259	99%	95%	
Net Worth (\$+Equity) at Life Exp. Age	\$6,147,444	\$7,811,431			
Estate Plan/Target & Success %		\$1,000,000	MAYBE --->	90%	

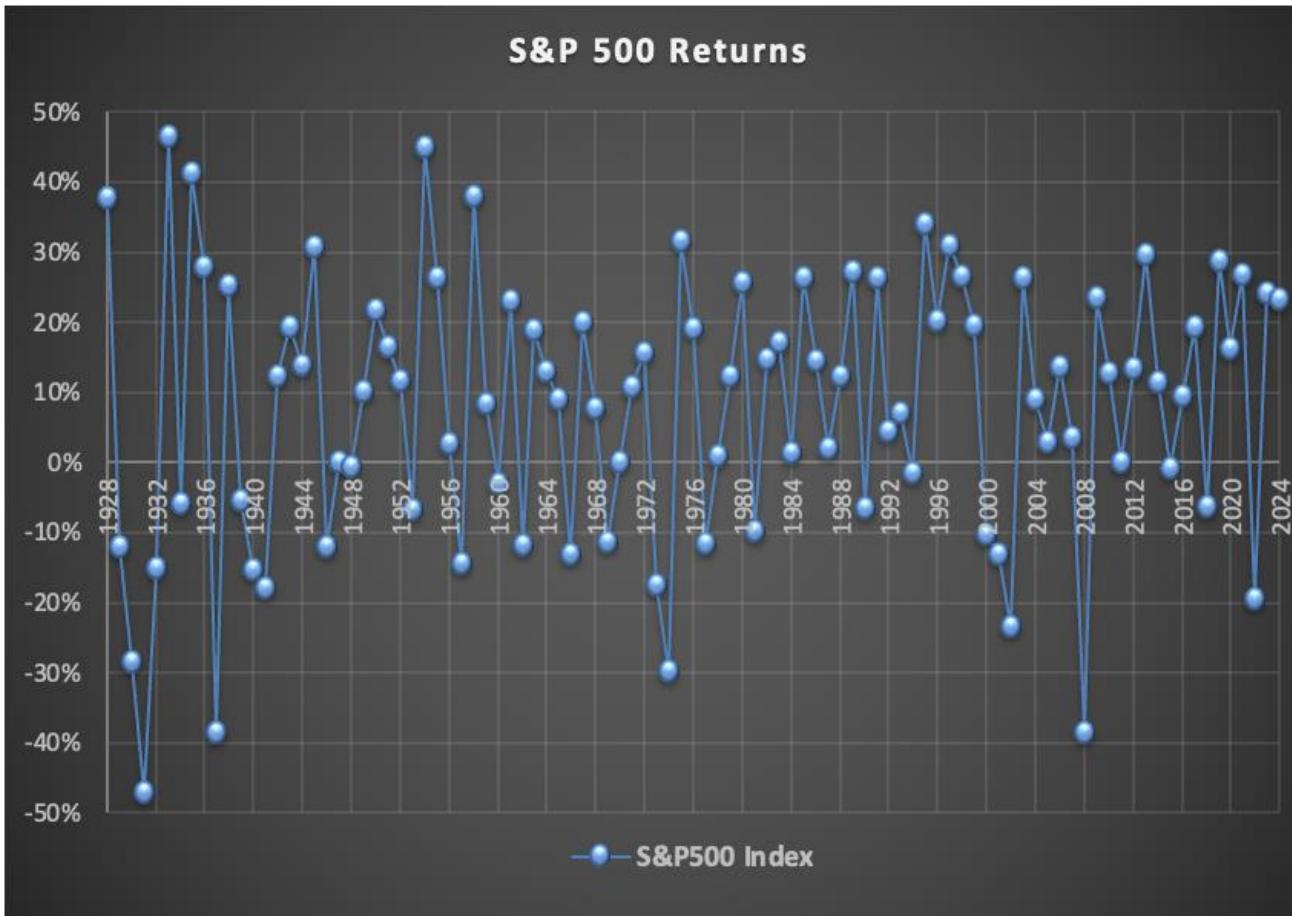
Type of Simulation	Normal Distribution
# of Simulations	1,000
Stocks - Mean, Std Dev	8% 16%
Bonds - Mean, Std Dev	4% 4%

Probability of Success based on Monte Carlo Simulation



- Total Net Worth – Monte Carlo Simulation** results are from using a normal distribution, 1000 simulations using mean & std dev above
- The Likelihood of Success vs Life Expectancy plot estimates your success rate of not running out of money within +/- 5 years of the husband and wife's life expectancy.
- The Liquid Net Worth at Life Expectancy plots shows you the range of Net Worth that is calculated from the Monte Carlo simulations
- A success rate > 95% is assumed to be acceptable; a success rate less than 75% is assumed to be unacceptable.**

Net Worth – *Historical Index Sequence of Returns*



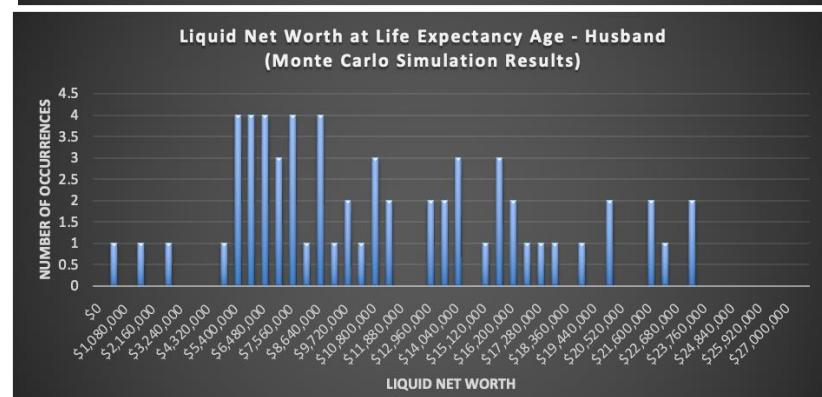
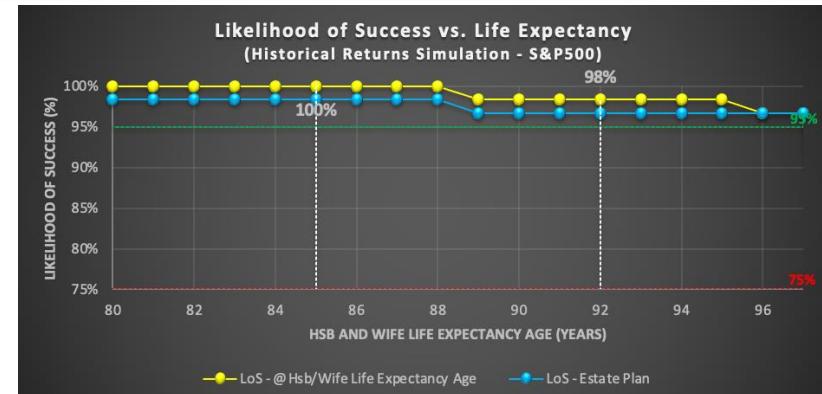
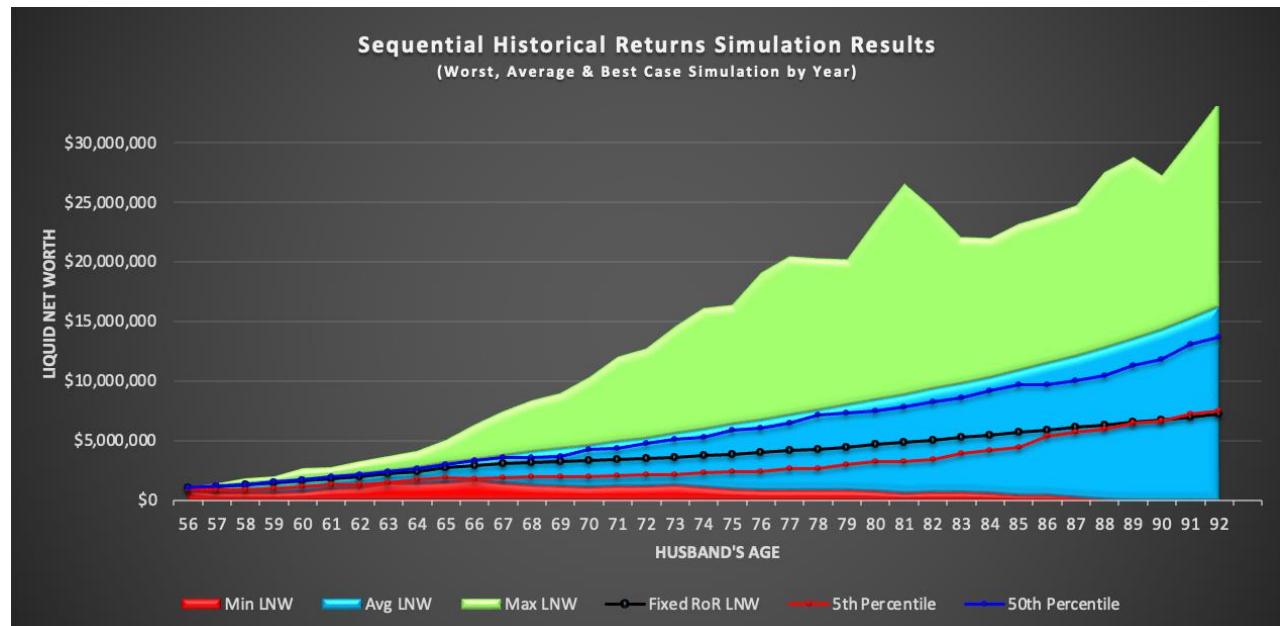
Type of Simulation	S&P500
# of Simulations	61
Bonds Included?	Yes

- **One shortcoming of Monte Carlo Simulations** is that market returns are assumed to be random from year-to-year. Stock markets do not behave "randomly" - they typically follow an economic cycle with years of increasing returns followed by years of decreasing returns – see plot of S&P500 Index returns from inception to 2016
- **The Historical Returns simulation** uses actual historical data of an index to "stress-test" your portfolio against real-world returns.
- **Simulation #1 starts with Year 1 of the index** and sequential index returns are applied to each successive year upto your life expectancy age. Net Worth is calculated from this sequence of historical returns. **Simulation #2 starts with Year 2 of the index**, Simulation #3 starts with Year 3 and so on.
- **This process is repeated for the period that index data is available** and the liquid net worth at life expectancy age is calculated for each simulation. The # of simulations run will be a function of your current age, life expectancy and the # of years index data is available.
- At the end of the analysis, **the program calculates how many simulations were successful** i.e. husband and wife do not run out of money at their life expectancy age.... **from this a probability of success or success rate is calculated.**

Net Worth – *Historical Returns Simulation Results*

RESULTS	Fixed Rate of Return Results		Historical Return Results		Type of Simulation	S&P500
	Husband	Wife	Husband	Wife		
Can you Retire at Desired Age?	YES	YES	YES	YES	# of Simulations	61
\$\$'s/Success % at Life Exp. Age	\$5,694,603	\$7,291,259	100%	98%	Bonds Included?	Yes
Net Worth (\$+Equity) at Life Exp. Age	\$6,147,444	\$7,811,431				
Estate Plan/Target & Success %		\$1,000,000	YES -->	97%		

Success Rate based on
Historical Returns Sim.



- **Total Net Worth – *Historical Returns Simulation*** is calculated using the S&P500 Index returns
- The Likelihood of Success vs Life Expectancy plot estimates your success rate of not running out of money within +/- 5 years of the husband and wife's life expectancy.
- The Liquid Net Worth at Life Expectancy plots shows you the range of Net Worth that is calculated from the Historical Returns simulations
- **A success rate > 95% is assumed to be acceptable; a success rate less than 75% is assumed to be unacceptable.**

SENSITIVITY ANALYSIS



- **Sensitivity Analysis** calculates the impact of changing Inputs on your Net Worth
- Look at the **Sensitivity Plots** and identify the parameters that you can change to meet your financial goals.
- **Parameters with the greatest slope** are the most impactful

Sensitivity Analysis – *Results Summary*

Sensitivity Analysis is arguably one of the most useful features of this Report. It **answers the 2 important questions everyone has: When Can I Retire? and Will I Run Out of Money in Retirement?** This analysis **calculates the impact of controllable parameters on your Net Worth.** “Controllable parameters” are those that you can control and act upon e.g. the age you retire, or how much you spend. By evaluating the relative importance of these parameters, you can **take specific actions** that will allow you to meet your retirement goals.

“Controllable” Parameters

- ✓ Husband & Wife’s Retirement Age
- ✓ Expenses - Before & During Retirement
- ✓ Asset Allocation & Annual Re-balancing

“Non-Controllable” Parameters

- ✗ Husband & Wife’s Income
- ✗ Husband & Wife’s Life Expectancy
- ✗ Savings (you control expenses, not savings)
- ✗ Taxes
- ✗ Stock Rate of Return & Volatility

How the Tables Below Were Created:

- A single parameter value is changed (keeping all others constant) until it meets the requirement of not running out of money at the wife’s life expectancy age
- This process is repeated for each parameter shown in the table.
- Calculations done using Fixed Rate of Return assumption & Monte Carlo Simulations

Fixed Rate of Return Results

Husband's Retirement Age	59
Wife's Retirement Age	54
Yearly Expense	\$101,300
Expense in Retirement	156%
Stock Rate of Return	N/A
Pre-Retirement Stock Asset Allocation	10%
*Retirement Stock AA (if not possible with pre-retirement AA)	65%

This projection is likely not realistic because market returns change significantly each year.

Monte Carlo Analysis Results

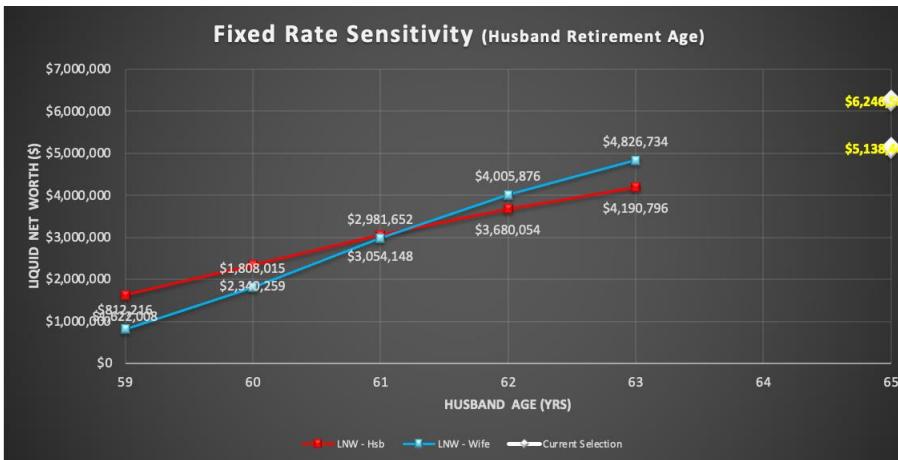
Husband's Retirement Age	66
Wife's Retirement Age	66
Yearly Expense	\$73,500
Expense in Retirement	98%
Stock Rate of Return	N/A
Pre-Retirement Stock Asset Allocation	N/A
*Retirement Stock AA (if not possible with pre-retirement AA)	N/A

95% Likelihood of Success based on Monte Carlo simulation

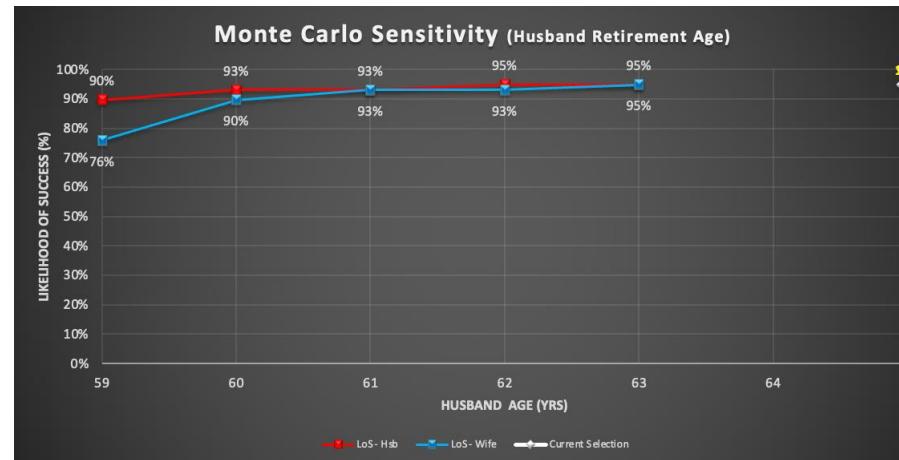
Sensitivity Analysis – *Results: Retirement Age*

Husband's Age Results

Fixed Rate of Return Results

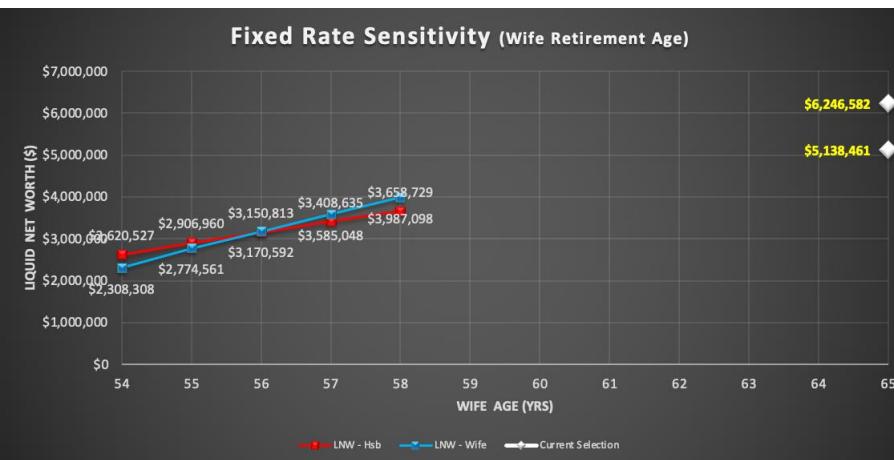


Monte Carlo Simulation Results

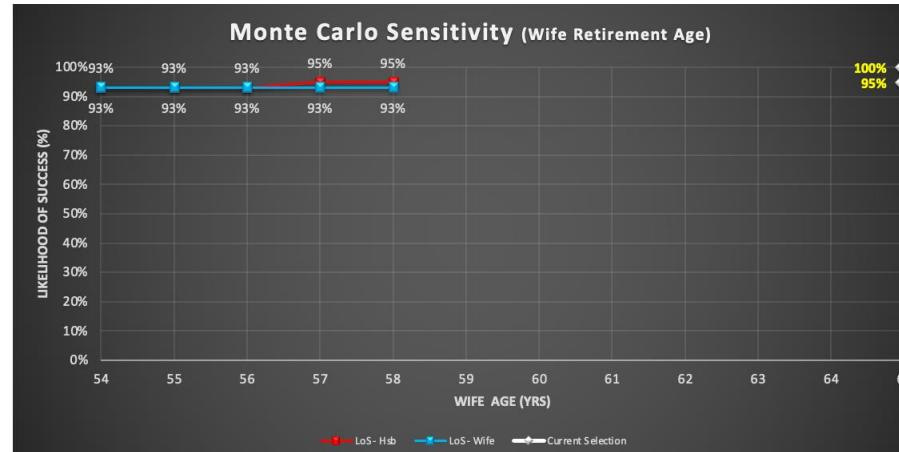


Wife's Age Results

Fixed Rate Sensitivity (Wife Retirement Age) graph showing Liquid Net Worth vs Wife Age.



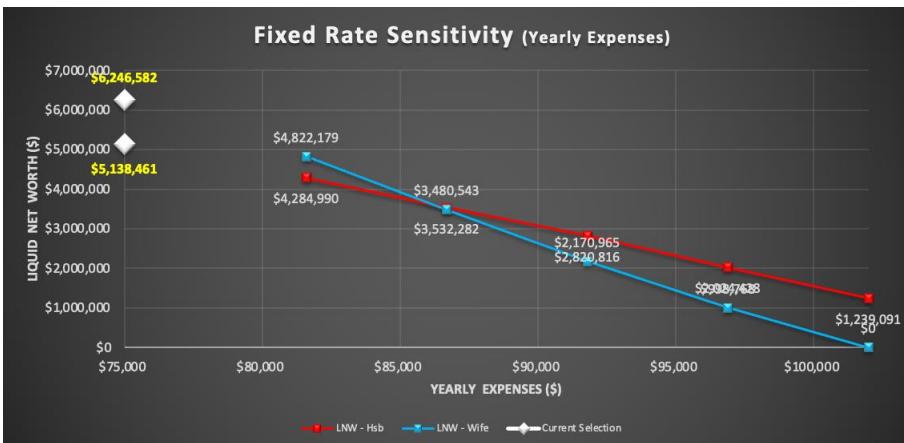
Monte Carlo Sensitivity (Wife Retirement Age) graph showing Likelihood of Success vs Wife Age.



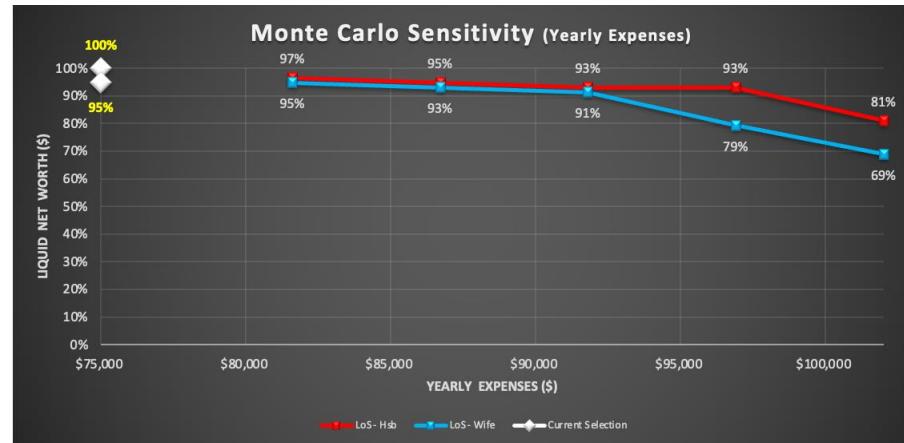
- Flat lines indicate low impact; lines with **high slope** indicate significant impact of parameter
- Fixed Rate of Return Results:** liquid net worth at wife's life expectancy age
- Monte Carlo Results:** likelihood of success (LoS) at wife's life expectancy age
- Focus on the Monte Carlo graphs, not fixed rate of return graphs**, as they are more “realistic”

Sensitivity Analysis – *Results: Expenses*

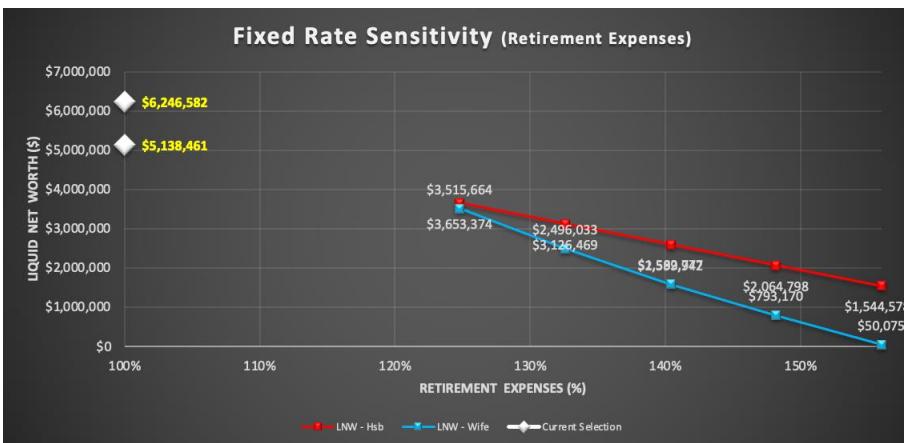
Fixed Rate of Return Results



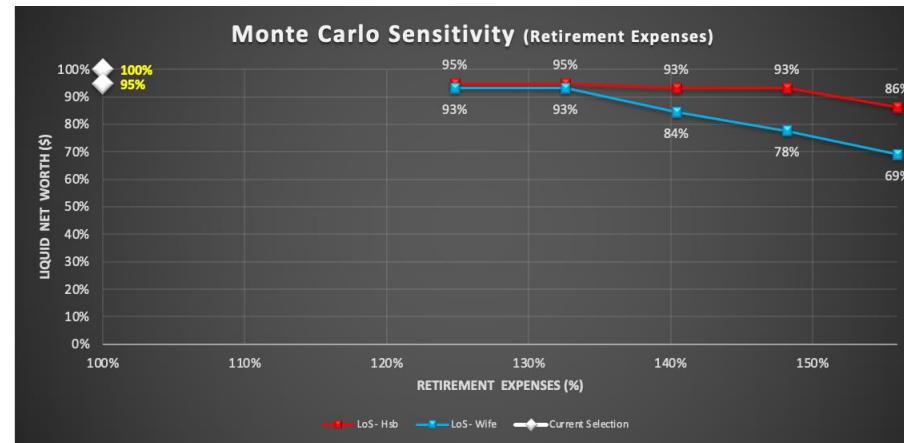
Monte Carlo Simulation Results



Yearly Expenses



Retirement Expense



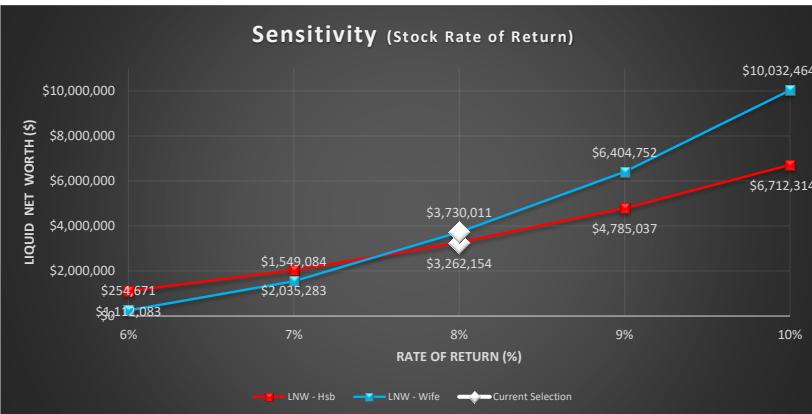
- Flat lines indicate low impact; lines with **high slope indicate significant impact of parameter**

- Fixed Rate of Return Results:** liquid net worth at wife's life expectancy age

- Monte Carlo Results:** likelihood of success (LoS) at wife's life expectancy age

- Focus on the Monte Carlo graphs, not fixed rate of return graphs,** as they are more “realistic”

Sensitivity Analysis – *Results: Rate of Return & Volatility*



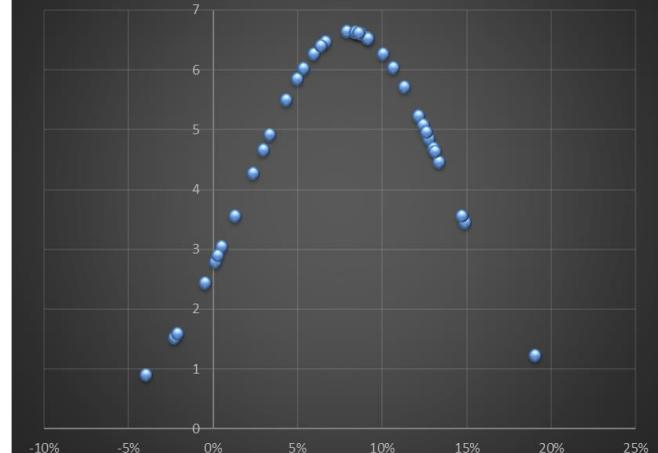
Rate of Return	LNW - Hsb	LoS - Hsb	LNW - Wife	LoS - Wife	LoS - Estate Plan
6%	\$1,112,083		\$254,671		
7%	\$2,035,283		\$1,549,084		
8%	\$3,262,154		\$3,730,011		
9%	\$4,785,037		\$6,404,752		
10%	\$6,712,314		\$10,032,464		
8%	\$3,262,154	91%	\$3,730,011	65%	64%

- **Compare the 6% return vs 10% return plots** to understand the impact of Rate of Return and Yearly Compounding to your Net Worth
- **Compare 6% std dev vs 14% std dev plots** to understand the impact of Stock Rate of Return Volatility to your Net Worth and Success Rate

Rate of return = 8%, Low Volatility (Std Dev) = 6%

RESULTS	Fixed Rate of Return Results		Monte Carlo Results	
	Husband	Wife	Husband	Wife
Can you Retire at Desired Age?	YES	YES	YES	YES
\$\$'s/Success % at Life Exp. Age	\$3,262,154	\$3,730,011	100%	96%
Net Worth (\$+Equity) at Life Exp. Age	\$3,714,994	\$4,250,183		
Estate Plan/Target & Success %	\$1,000,000	MAYBE -->	87%	

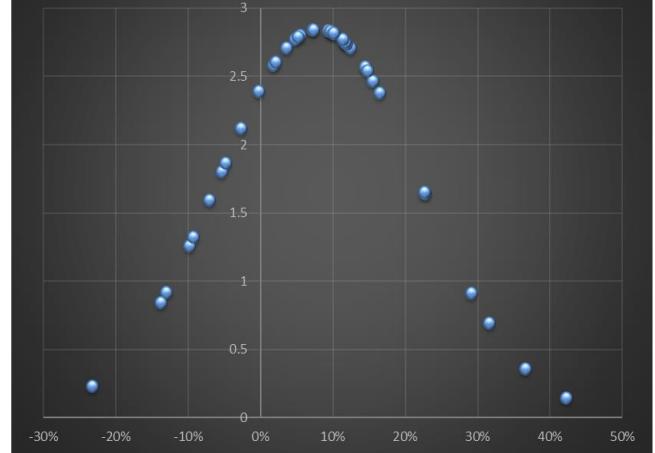
Stock Rate of Return - Normally Distributed (Last Simulation Values)



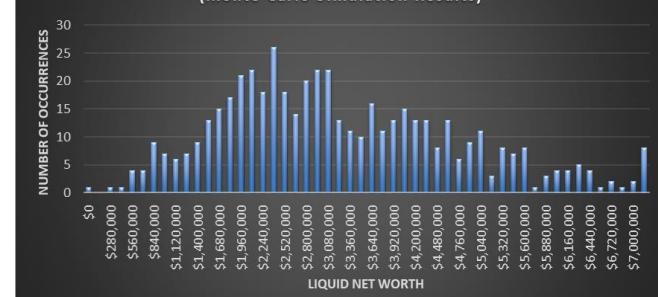
Rate of return = 8%, High Volatility (Std Dev) = 14%

RESULTS	Fixed Rate of Return Results		Monte Carlo Results	
	Husband	Wife	Husband	Wife
Can you Retire at Desired Age?	YES	YES	MAYBE	NO
\$\$'s/Success % at Life Exp. Age	\$3,262,154	\$3,730,011	87%	68%
Net Worth (\$+Equity) at Life Exp. Age	\$3,714,994	\$4,250,183		
Estate Plan/Target & Success %	\$1,000,000	NO -->	56%	

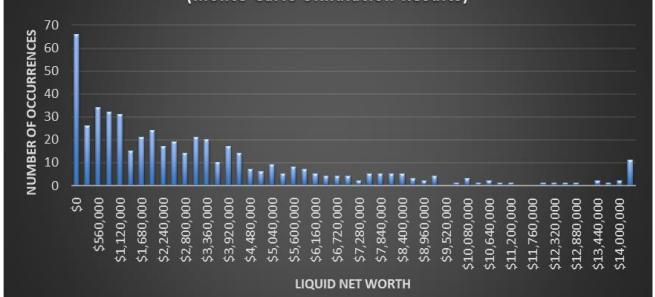
Stock Rate of Return - Normally Distributed (Last Simulation Values)



Liquid Net Worth at Life Expectancy Age - Husband (Monte Carlo Simulation Results)



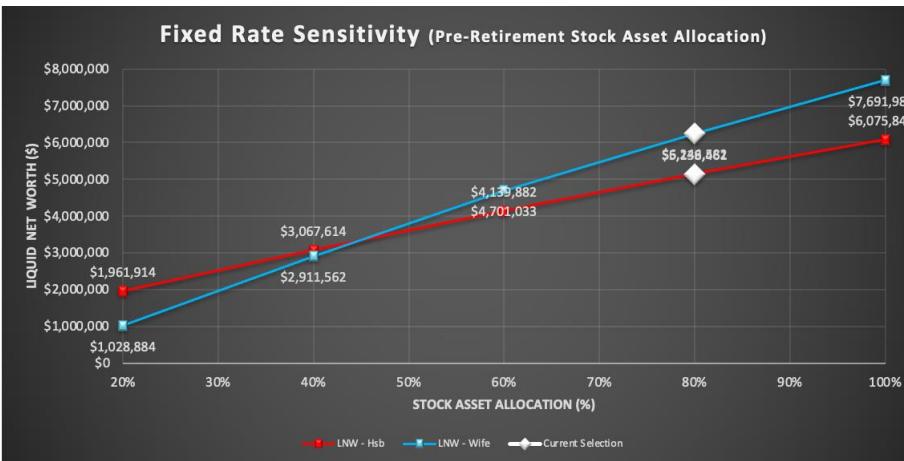
Liquid Net Worth at Life Expectancy Age - Husband (Monte Carlo Simulation Results)



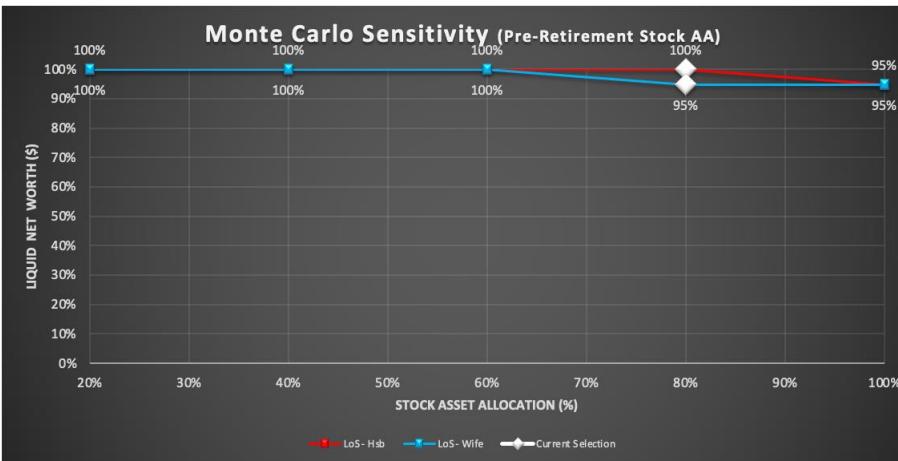
Sensitivity Analysis – *Results: Asset Allocation & Re-balancing*

Stock Allocation

Fixed Rate of Return Results

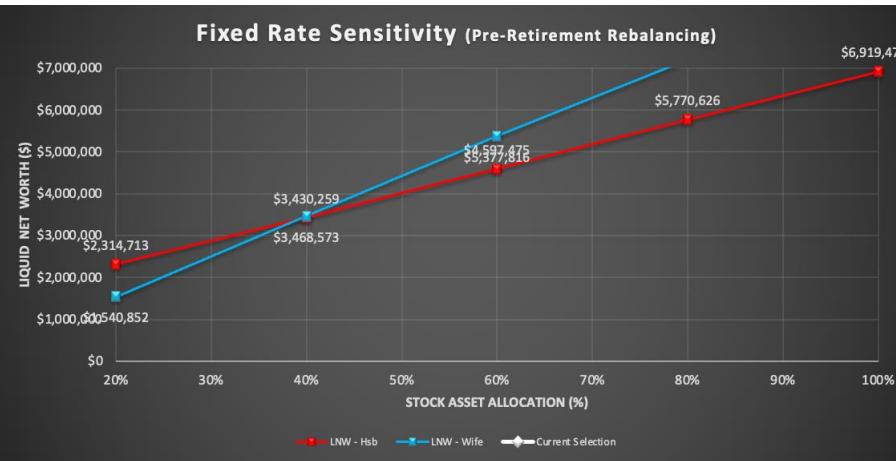


Monte Carlo Simulation Results

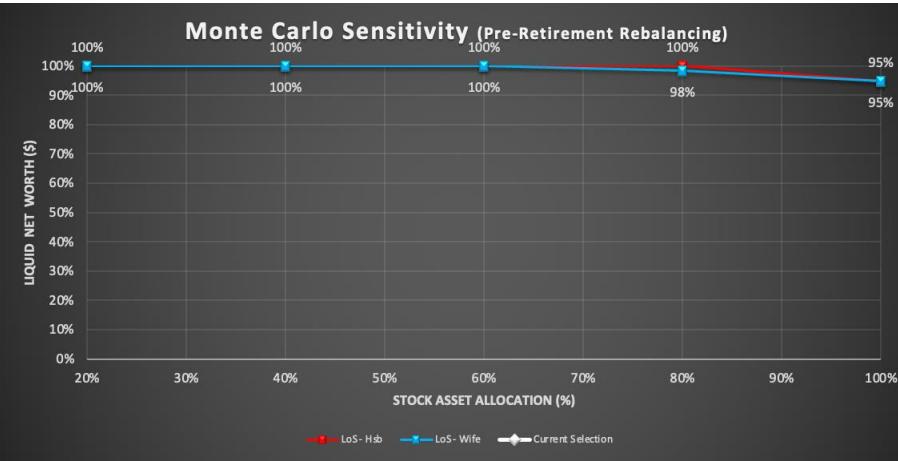


With Annual Rebalancing

Fixed Rate Sensitivity (Pre-Retirement Rebalancing) graph



Monte Carlo Sensitivity (Pre-Retirement Rebalancing) graph



- Flat lines indicate low impact; lines with **high slope** indicate **significant impact of parameter**
- Fixed Rate of Return Results:** liquid net worth at wife's life expectancy age
- Monte Carlo Results:** likelihood of success (LoS) at wife's life expectancy age
- Focus on the Monte Carlo graphs, not fixed rate of return graphs**, as they are more "realistic"

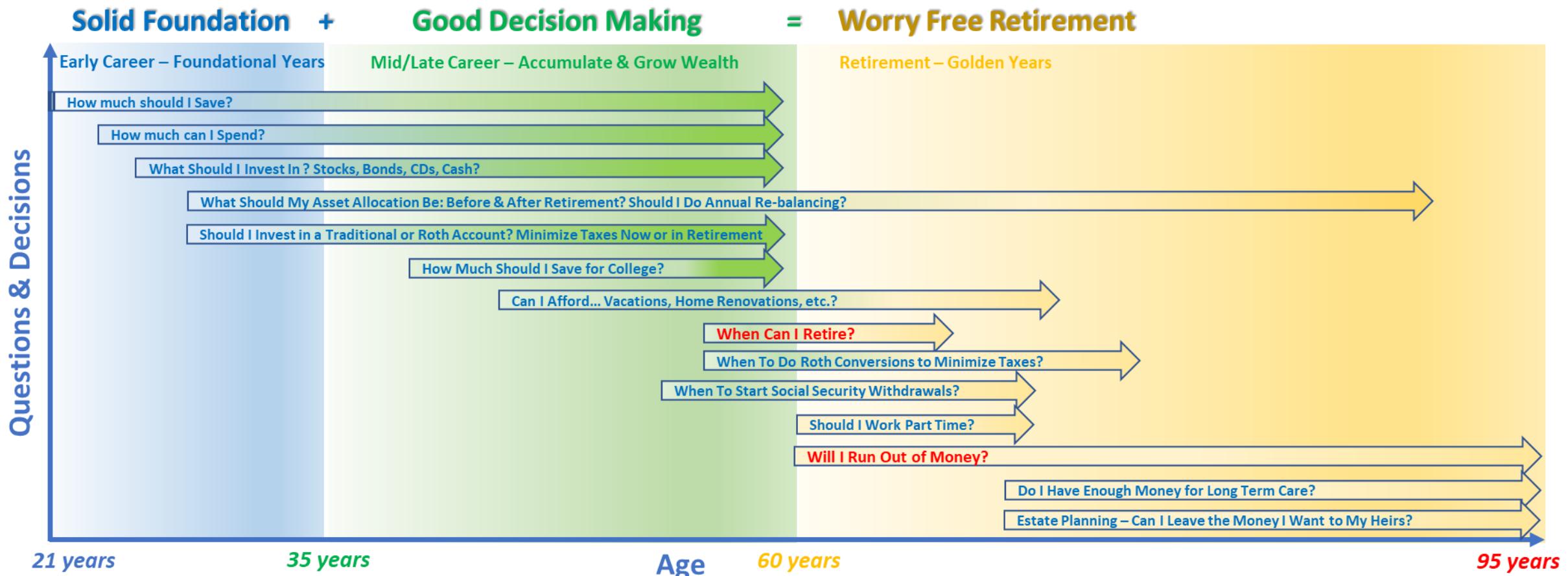
GOALS AND OPTIMIZATION



- **Review and understand** the different financial decisions you have to make during your lifetime
- **Carefully review** the results of the following optimizations:
 - *Roth vs Traditional 401k/IRA Optimization*
 - *529 Plan Amount Optimization*
 - *Asset Allocation & Rebalancing*
 - *Roth Conversion Optimization*
 - *Social Security Optimization*
 - *Max Safe Withdrawal Strategy in Retirement*
 - *Long Term Care Expenses Optimization*

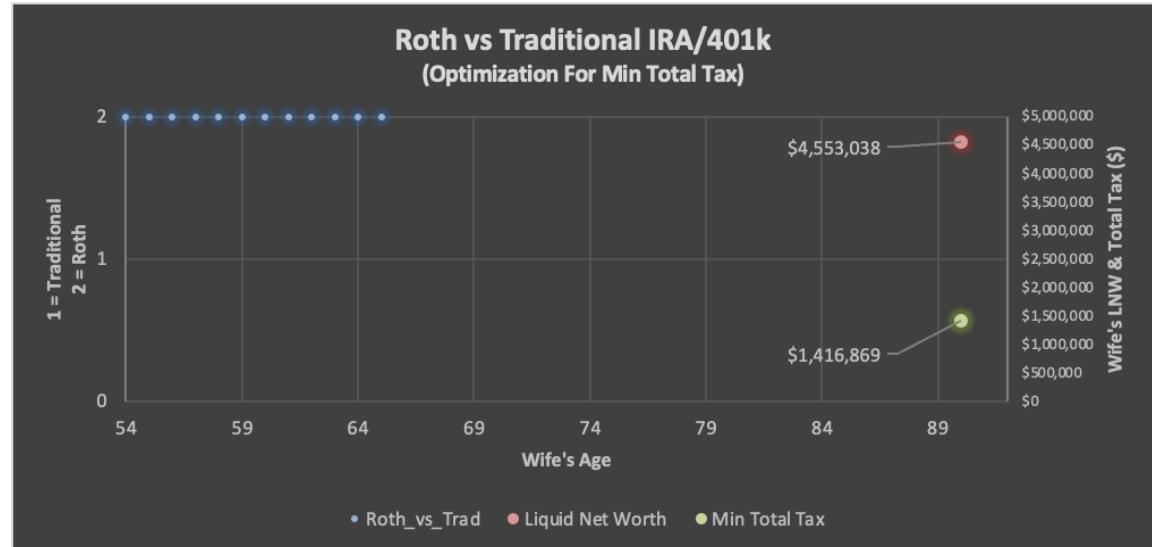
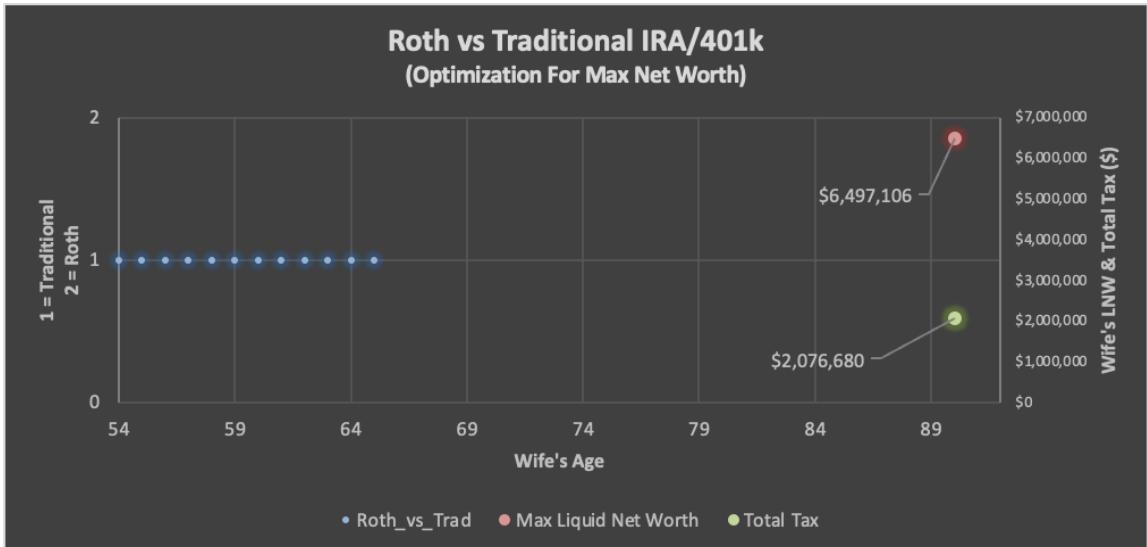
Goals & Optimization – *Financial Goals*

Financial goals are different in different phases of life. As we progress through our life - early career, starting & growing a family, preparing for retirement and then into our golden years, we have **many questions & make many financial decisions**. While the top two questions are : **When Can I Retire?** and **Will I Run Out of Money?** there are many others. The **decisions** we make during our “**Financial Lifecycle**” have a profound effect on our retirement. This Report provides the answer to most of the questions below.



Goals & Optimization – *Roth vs Traditional 401k/IRA Optimization*

One of the earliest decisions we make in our career is the type of account to put our retirement money in. You can **fund your retirement with pre-tax dollars (Traditional 401k/IRA) or with after tax dollars (Roth 401k/IRA)**. Putting money in a Traditional account saves you tax dollars now, you pay taxes when you withdraw money in retirement. Putting money in a Roth account saves you tax dollars in retirement, but you pay your taxes now. It also has implications on RMD (Required Minimum Distribution) that you take when you turn 75 years. Traditional accounts are subject to RMD (and associated taxes); whereas Roth accounts are exempt from RMD. **This trade boils down to 3 factors** – 1) your tax rate now vs in retirement; 2) compounded, tax free growth of tax dollars saved now when invested in a Traditional account and 3) RMD taxes associated with the size of your Traditional accounts. The **LCF Planner calculates the impact of investment in Traditional or Roth account on your net worth and provides guidance on the optimum investment vehicle during your working years.**

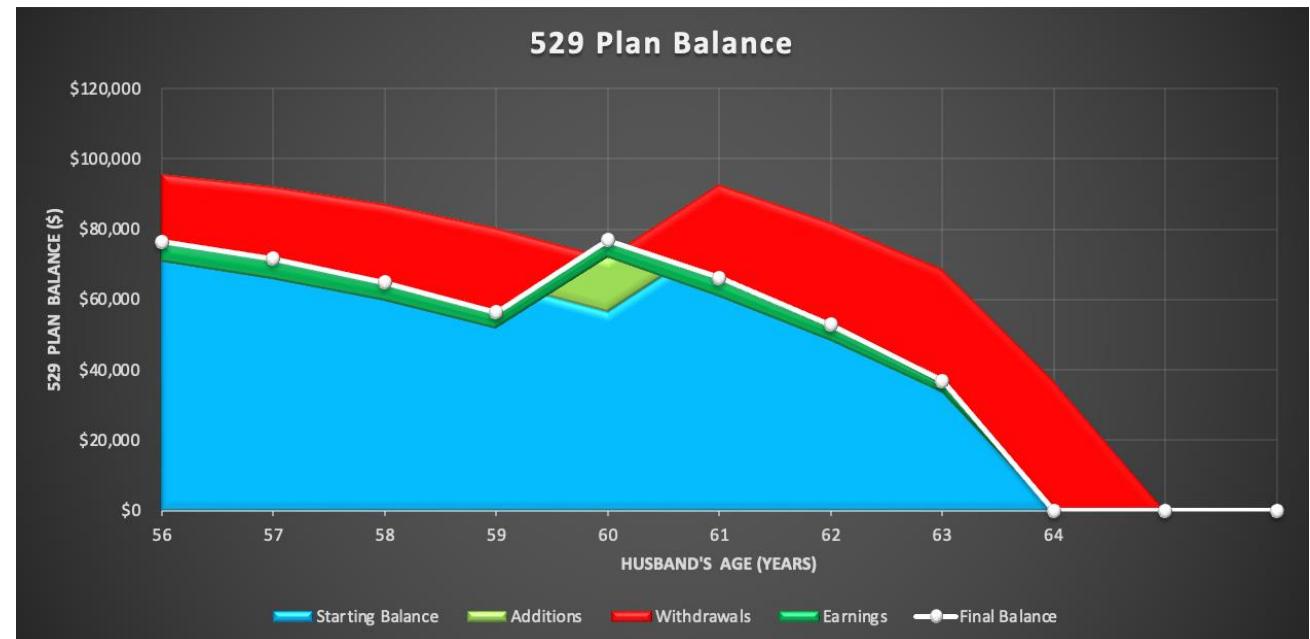


The Blue dots represent the investment vehicle to put your retirement money each year for 1) maximizing net worth (left plot) or minimizing total taxes you pay (right plot).

Goals & Optimization – 529 Plan Amount Optimization

Families with young children need to plan for their kids college education. The **LCF Planner** calculates the optimal amount of money you should put aside every year in a **529 Plan** to meet your children's education needs. **Note** that the yearly amount is calculated using a **Fixed Rate of Return assumption** – so actual amount necessary will vary based on real returns in your 529 Plan.

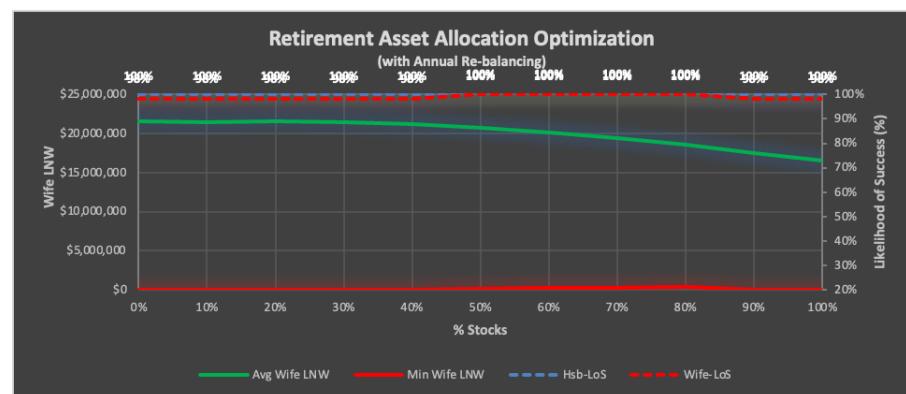
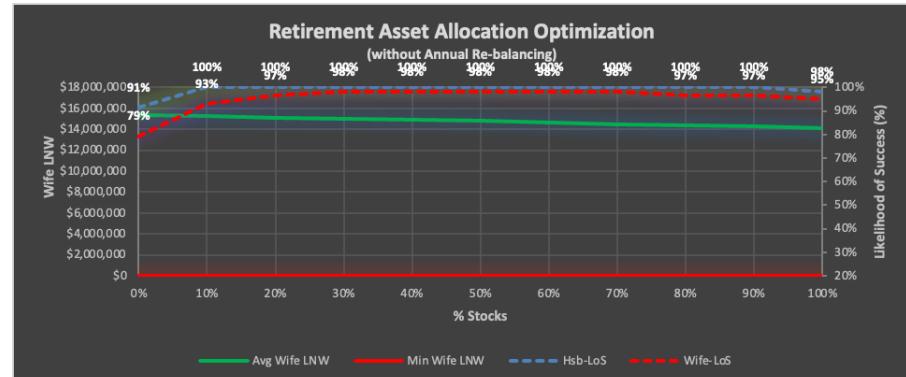
529 Plan Optimization Results					
Hsb Age	Starting Balance	Additions	Earnings	Withdrawals	Final Balance
56	\$80,000	\$15,699	\$5,756	(\$25,000)	\$76,455
57	\$76,455	\$15,699	\$5,656	(\$26,250)	\$71,561
58	\$71,561	\$15,699	\$5,228	(\$27,563)	\$64,926
59	\$64,926	\$15,699	\$4,652	(\$28,941)	\$56,337
60	\$56,337	\$15,699	\$4,940	\$0	\$76,976
61	\$76,976	\$15,699	\$5,398	(\$31,907)	\$66,167
62	\$66,167	\$15,699	\$4,580	(\$33,502)	\$52,943
63	\$52,943	\$15,699	\$3,471	(\$35,178)	\$36,936
64	\$36,936	\$0	\$0	(\$36,936)	\$0



Goals & Optimization – *Asset Allocation & Rebalancing*

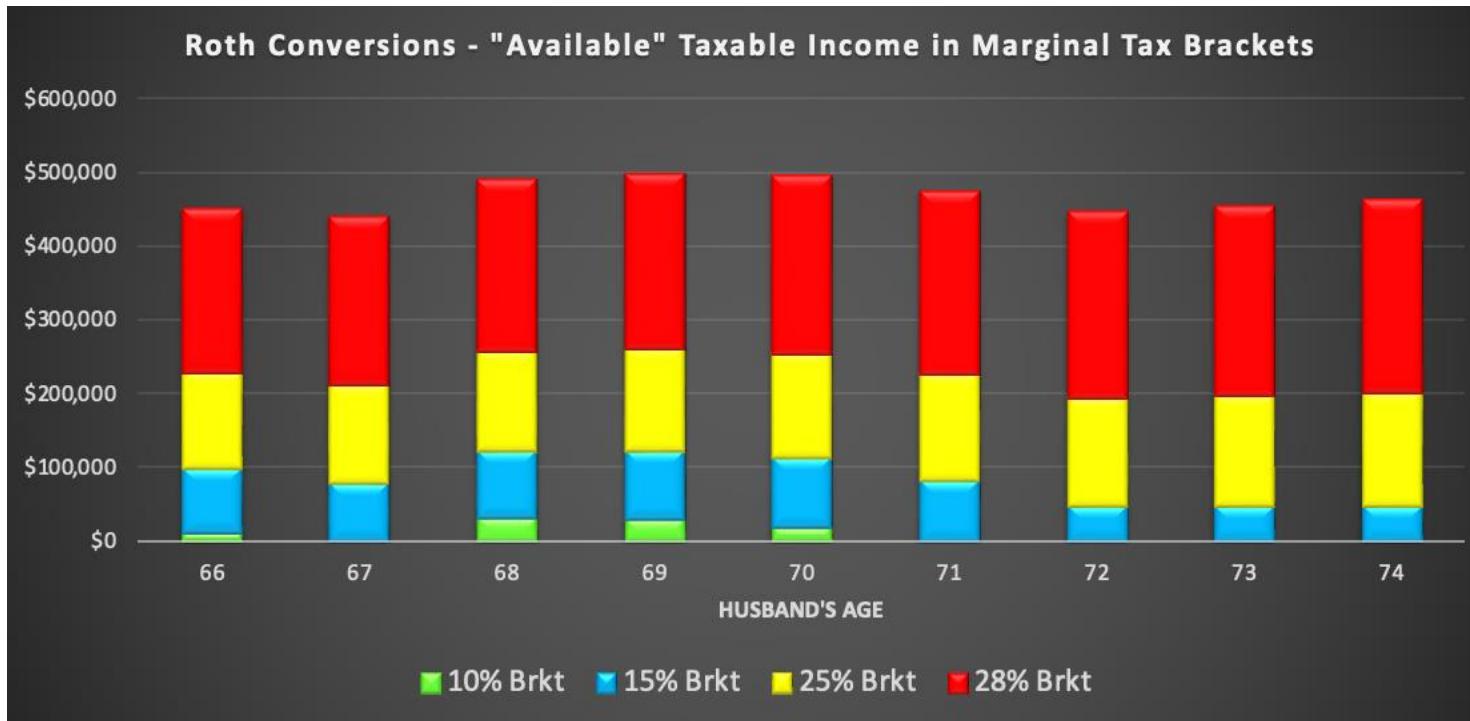
Perhaps one of the most important parameters that will determine your net worth is **your asset allocation and annual rebalancing**. Asset allocation is simply where you put your money – high risk (stocks), low risk (bonds), short-term (CD's) or cash. If you are young and have a high tolerance for risk, you should have a higher allocation towards stocks. If you are close to (or in) retirement, or have low risk tolerance, you should have a lower allocation towards stocks. Rebalancing is the act of selling (or buying) stocks, bonds and short-terms to achieve your desired allocations.

Base line	65%	35%	0%	0%	0	\$5,138,461	\$8,246,582	100%	95%	\$0	\$13,045,380
#	Asset Allocation in Retirement					Fixed Rate Results		Historical Return Results			
	Stock	Bond	CD	Cash	Re-Bal	Hsb LNW	Wife LNW	Hsb-LoS	Wife-LoS	Min Wife LNW	Avg Wife LNW
1	0%	100%	0%	0%	0	\$1,997,752	\$0	91%	79%	\$0	\$15,328,007
2	10%	90%	0%	0%	0	\$2,467,356	\$1,578,605	100%	93%	\$0	\$15,246,706
3	20%	80%	0%	0%	0	\$2,934,637	\$2,449,342	100%	97%	\$0	\$15,125,957
4	30%	70%	0%	0%	0	\$3,397,549	\$3,296,489	100%	98%	\$0	\$14,999,763
5	40%	60%	0%	0%	0	\$3,861,117	\$4,133,703	100%	98%	\$0	\$14,899,280
6	50%	50%	0%	0%	0	\$4,308,651	\$4,893,379	100%	98%	\$0	\$14,796,474
7	60%	40%	0%	0%	0	\$4,741,794	\$5,591,016	100%	98%	\$0	\$14,659,026
8	70%	30%	0%	0%	0	\$5,152,774	\$6,249,217	100%	98%	\$0	\$14,502,012
9	80%	20%	0%	0%	0	\$5,536,968	\$6,859,961	100%	97%	\$0	\$14,395,323
10	90%	10%	0%	0%	0	\$5,885,270	\$7,416,661	100%	97%	\$0	\$14,257,422
11	100%	0%	0%	0%	0	\$6,205,316	\$7,932,376	98%	95%	\$0	\$14,121,482
12	0%	100%	0%	0%	1	\$2,557,761	\$1,716,098	100%	98%	\$0	\$21,563,601
13	10%	90%	0%	0%	1	\$2,882,441	\$2,227,019	100%	98%	\$0	\$21,436,900
14	20%	80%	0%	0%	1	\$3,230,325	\$2,786,712	100%	98%	\$0	\$21,514,394
15	30%	70%	0%	0%	1	\$3,603,843	\$3,403,542	100%	98%	\$0	\$21,424,552
16	40%	60%	0%	0%	1	\$4,003,649	\$4,065,261	100%	98%	\$0	\$21,162,450
17	50%	50%	0%	0%	1	\$4,425,997	\$4,827,065	100%	100%	\$91,333	\$20,736,167
18	60%	40%	0%	0%	1	\$4,873,693	\$5,607,956	100%	100%	\$227,908	\$20,150,784
19	70%	30%	0%	0%	1	\$5,350,294	\$6,459,675	100%	100%	\$326,063	\$19,414,533
20	80%	20%	0%	0%	1	\$5,857,517	\$7,385,666	100%	100%	\$443,952	\$18,539,852
21	90%	10%	0%	0%	1	\$6,389,639	\$8,378,460	100%	98%	\$0	\$17,540,750
22	100%	0%	0%	0%	1	\$6,900,243	\$9,326,411	100%	98%	\$0	\$16,600,568



Goals & Optimization – *Roth Conversion Optimization*

Another important consideration is when and how much of your Traditional IRA/401k account Dollar's should you convert to a Roth account. Roth conversion should be done in years where your taxable income is low so that you pay low taxes for the conversion. This can typically happen after you have retired and up to the RMD age. **The LCF Planner optimizes this conversion** by providing you with information on how much money you have in your marginal tax brackets each year



Goals & Optimization – *Social Security Optimization*

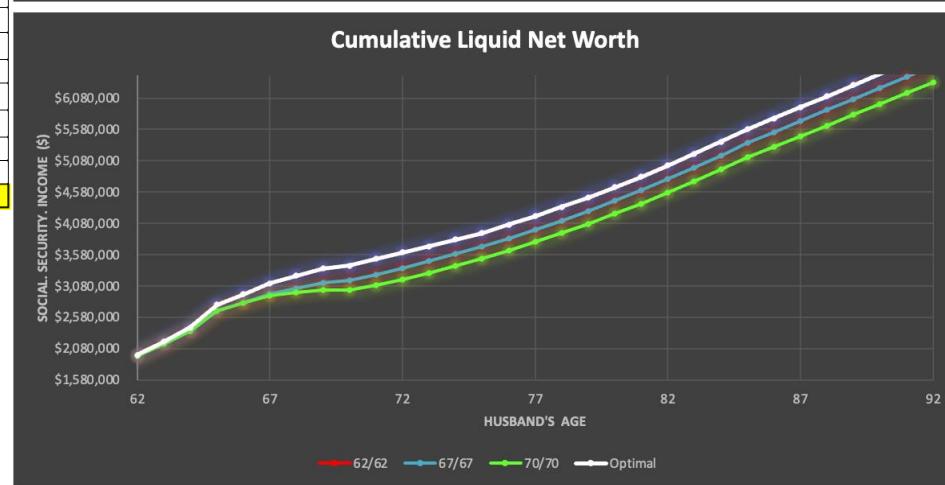
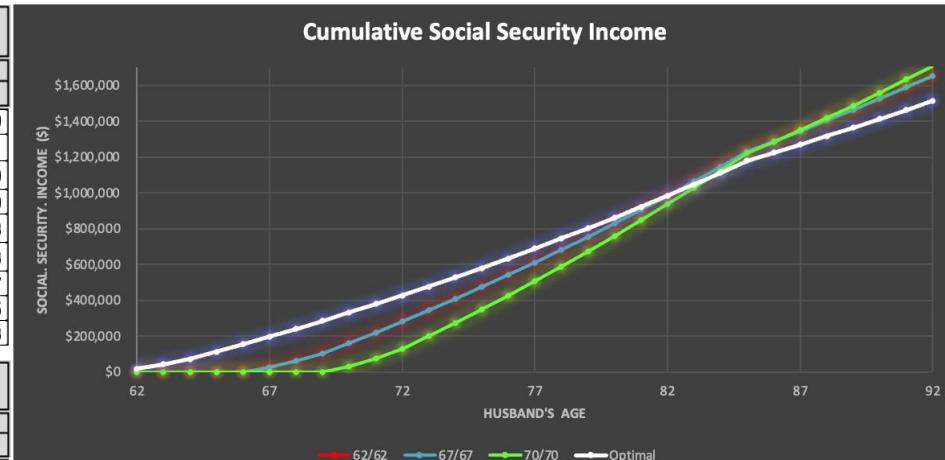
When do you claim Social Security? The earliest age at which you qualify for SS is 62 (with benefits reduced to 70%). Benefits increase as you delay the age at which you take SS (reaching 100% at your full SS age) and increase thereon upto age 70 (benefits increase by 24%). When you claim Social Security is a tradeoff between amount of money you will get, the number of years you get benefits for and your life expectancy. **The LCF Planner runs all combinations of husband and wife's claiming age** and determines the impact on your Net Worth and the total Social Security amount claimed.

Social Security Yearly Earning		
Age	Husband	Wife
62	\$24,500	\$14,000
63	\$26,250	\$15,000
64	\$28,000	\$16,000
65	\$30,335	\$17,334
66	\$32,666	\$18,666
67	\$35,000	\$20,000
68	\$37,800	\$21,600
69	\$40,600	\$23,200
70	\$43,400	\$24,800

Lifetime Social Security Earnings									
Hsb SS Start Age	Wife Social Security Start Age								
	62	63	64	65	66	67	68	69	70
62	\$1,514,114	\$1,516,983	\$1,517,149	\$1,522,447	\$1,524,165	\$1,522,529	\$1,522,567	\$1,518,695	\$1,515,159
63	\$1,539,141	\$1,542,010	\$1,542,176	\$1,547,474	\$1,549,192	\$1,547,556	\$1,547,594	\$1,543,722	\$1,536,091
64	\$1,558,259	\$1,561,128	\$1,561,294	\$1,566,592	\$1,568,310	\$1,566,674	\$1,566,712	\$1,562,840	\$1,555,209
65	\$1,594,860	\$1,597,729	\$1,597,894	\$1,603,193	\$1,604,911	\$1,603,274	\$1,603,313	\$1,599,441	\$1,591,810
66	\$1,623,598	\$1,626,467	\$1,626,632	\$1,631,931	\$1,633,649	\$1,632,013	\$1,632,051	\$1,628,179	\$1,620,548
67	\$1,645,043	\$1,647,912	\$1,648,078	\$1,653,376	\$1,655,094	\$1,653,458	\$1,653,496	\$1,649,624	\$1,641,993
68	\$1,675,137	\$1,678,006	\$1,678,172	\$1,683,470	\$1,685,188	\$1,683,552	\$1,683,590	\$1,679,718	\$1,672,087
69	\$1,696,685	\$1,699,554	\$1,699,719	\$1,705,018	\$1,706,736	\$1,705,100	\$1,705,138	\$1,701,266	\$1,693,635
70	\$1,710,018	\$1,712,888	\$1,713,053	\$1,718,351	\$1,720,069	\$1,718,433	\$1,718,471	\$1,714,599	\$1,706,968

Net Worth @ Wife's Life Expectancy Age									
Hsb SS Start Age	Wife Social Security Start Age								
	62	63	64	65	66	67	68	69	70
62	\$6,827,112	\$6,812,161	\$6,785,302	\$6,767,430	\$6,734,949	\$6,697,486	\$6,671,190	\$6,644,873	\$6,613,889
63	\$6,817,895	\$6,799,111	\$6,768,758	\$6,749,385	\$6,720,721	\$6,688,064	\$6,658,506	\$6,629,859	\$6,594,331
64	\$6,781,892	\$6,761,617	\$6,729,773	\$6,717,989	\$6,691,231	\$6,655,042	\$6,623,260	\$6,593,459	\$6,555,316
65	\$6,778,235	\$6,762,420	\$6,737,168	\$6,720,930	\$6,692,277	\$6,654,723	\$6,638,716	\$6,610,483	\$6,571,594
66	\$6,768,484	\$6,748,725	\$6,719,778	\$6,702,035	\$6,678,820	\$6,646,385	\$6,624,577	\$6,595,339	\$6,552,642
67	\$6,730,205	\$6,708,875	\$6,681,263	\$6,666,034	\$6,639,223	\$6,604,822	\$6,580,193	\$6,547,797	\$6,503,945
68	\$6,711,527	\$6,692,614	\$6,660,562	\$6,640,478	\$6,607,665	\$6,570,580	\$6,544,334	\$6,507,464	\$6,462,299
69	\$6,680,649	\$6,640,556	\$6,605,765	\$6,583,158	\$6,541,124	\$6,501,109	\$6,474,775	\$6,437,197	\$6,391,871
70	\$6,595,250	\$6,573,464	\$6,532,000	\$6,499,910	\$6,481,108	\$6,450,852	\$6,422,337	\$6,383,043	\$6,335,958

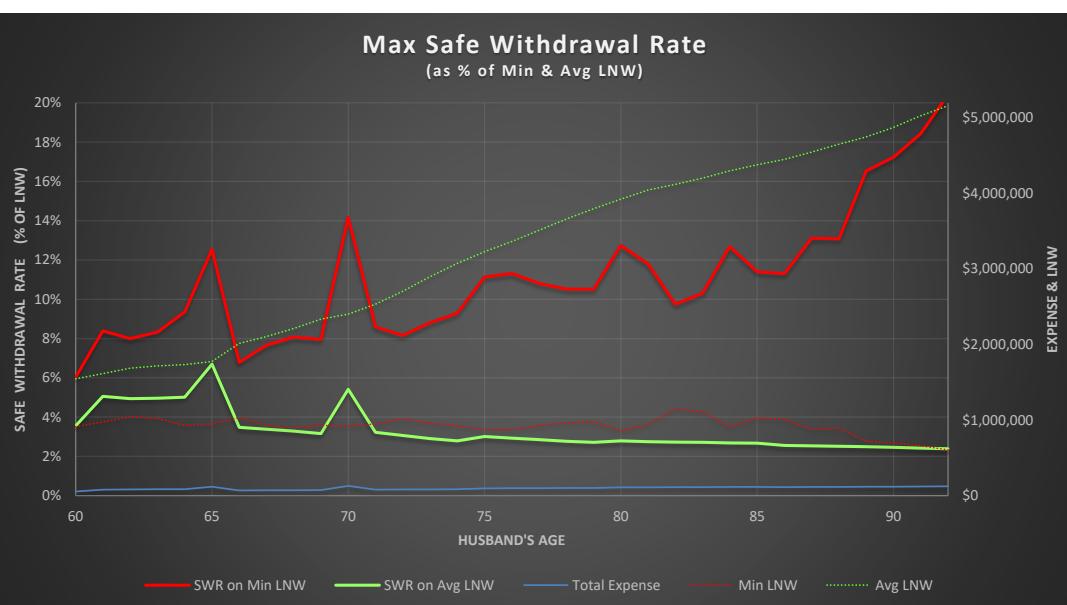
RESULTS	Optimal Starting Age	Yearly SS Amount
Husband	62	\$24,500
Wife	62	\$14,000
Maximized Net Worth		\$6,827,112
Lifetime SS Earnings		\$1,514,114



Goals & Optimization – *Max Safe Withdrawal Strategy in Retirement*

Will I run out of money in retirement? This question is generally on the top of the mind for most retirees. While sound financial planning is a prerequisite to a stress-free retirement, market uncertainties and unexpected situations can easily subvert a good plan. One of the most “controllable” ways to adjust to unexpected events is to manage your spending in retirement. **You may have heard of the 4% Bengen rule** (for a 60-40 stock/bond mix, you can withdraw an inflation adjusted 4% of your portfolio every year and not run out of money). **The LCF Planner extends and applies that thinking to your specific financial situation. It adjusts your spending in retirement by a “factor” that will enable you to meet your estate plan/goal with a 95% likelihood of success** (using Monte Carlo Simulations)

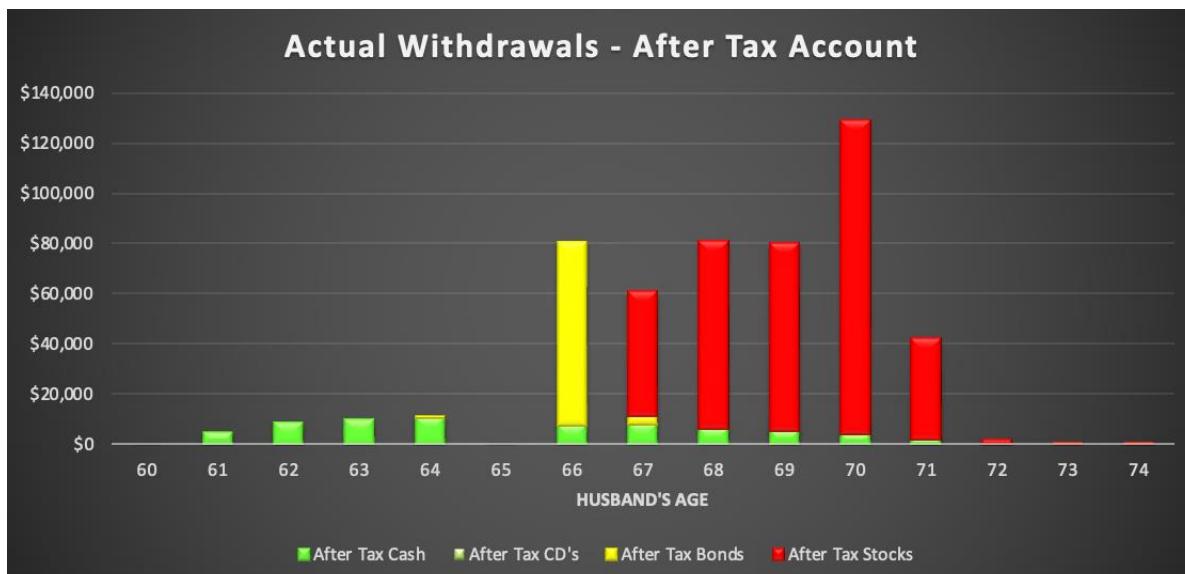
RESULTS	Deterministic Results		Monte Carlo Results	
	Husband	Wife	Husband	Wife
Can you Retire at Desired Age?	YES	YES	YES	MAYBE
\$\$'s/Success % at Life Exp. Age	\$5,694,603	\$7,291,259	100%	95%
Net Worth (\$+Equity) at Life Exp. Age	\$6,147,444	\$7,811,431		
Estate Plan/Target & Success %		\$1,000,000	MAYBE ...>	95%
Retirement Expense Multiplier: (All Non-Recur Only Med Only)	N/A	110.0%	N/A	



Hsb Age	Max Safe Withdrawal Rate (SWR) - Simulation Results					Avg LNW	SWR on Avg LNW
	Max Withdrawal (Recur Exp)	Max Withdrawal (Misc Exp)	Max Withdrawal (Educ Exp)	Max Withdrawal (Medical Exp)	Min LNW		
67	\$101,741	\$15,227	\$0	\$28,221	\$1,368,619	10.6%	\$3,475,377
68	\$103,724	\$15,683	\$0	\$29,632	\$1,248,072	11.9%	\$3,688,000
69	\$105,734	\$16,154	\$0	\$31,113	\$1,223,965	12.5%	\$3,958,622
70	\$107,772	\$16,192	\$0	\$32,669	\$1,167,439	19.2%	\$4,180,875
71	\$109,837	\$17,138	\$0	\$34,302	\$1,162,257	13.9%	\$4,464,257
72	\$111,928	\$17,652	\$0	\$36,017	\$1,271,999	13.0%	\$4,758,324
73	\$114,046	\$18,181	\$0	\$37,818	\$1,071,639	15.9%	\$5,032,605
74	\$116,191	\$18,727	\$0	\$39,709	\$947,069	18.4%	\$5,324,703
75	\$118,362	\$19,289	\$0	\$41,695	\$815,862	22.0%	\$5,618,419
76	\$120,558	\$0	\$0	\$43,779	\$759,321	21.6%	\$5,952,827
77	\$122,779	\$0	\$0	\$45,968	\$754,635	22.4%	\$6,298,313
78	\$125,026	\$0	\$0	\$48,267	\$715,543	24.2%	\$6,654,827
79	\$127,296	\$0	\$0	\$50,680	\$642,210	27.7%	\$6,955,385
80	\$129,591	\$0	\$0	\$53,214	\$500,254	36.5%	\$7,257,510
81	\$131,908	\$0	\$0	\$55,875	\$532,134	35.3%	\$7,561,466
82	\$134,248	\$0	\$0	\$58,669	\$513,164	37.6%	\$7,858,819
83	\$136,609	\$0	\$0	\$61,602	\$402,297	49.3%	\$8,175,883
84	\$138,992	\$0	\$0	\$64,682	\$233,646	87.2%	\$8,563,019
85	\$141,394	\$0	\$0	\$67,916	\$164,988	100.0%	\$8,943,169
86	\$143,815	\$0	\$0	\$71,312	\$0	100.0%	\$9,294,548
87	\$146,255	\$0	\$0	\$74,878	\$0	100.0%	\$9,697,790
88	\$148,711	\$0	\$0	\$78,622	\$0	100.0%	\$10,135,005
89	\$151,183	\$0	\$0	\$82,553	\$0	100.0%	\$10,548,479
90	\$153,670	\$0	\$0	\$86,680	\$0	100.0%	\$11,111,510
91	\$156,169	\$0	\$0	\$91,014	\$0	100.0%	\$11,760,443
92	\$158,681	\$0	\$0	\$95,565	\$0	100.0%	\$12,513,206

Goals & Optimization – *Non-Standard Withdrawal Strategy*

The most common withdrawal strategy is to first draw down your taxable accounts, followed by pre-tax accounts (Traditional) and keep the tax-free accounts (Roth) for last. Additionally, you first use cash, followed by short-term, bond and stock holdings from an account. While this is generally the best approach, sometimes it may make sense to make non-standard withdrawals to improve your Net Worth. Instead of selling stocks or bonds from a taxable account, it might be better to withdraw cash from a Traditional account. **The LCF Planner** provides you information on your yearly withdrawal needs vs cash available in all your account balances so that you can consider a non-standard withdrawal strategy.



- This graph shows you the actual cash withdrawals needed from your taxable account each year and the investments that are liquidated to meet the cash needs
- Notice the amount of stocks and bonds being sold to meet withdrawal needs
- This reduces the bond/stock component of your portfolio, resulting in a lower Net Worth

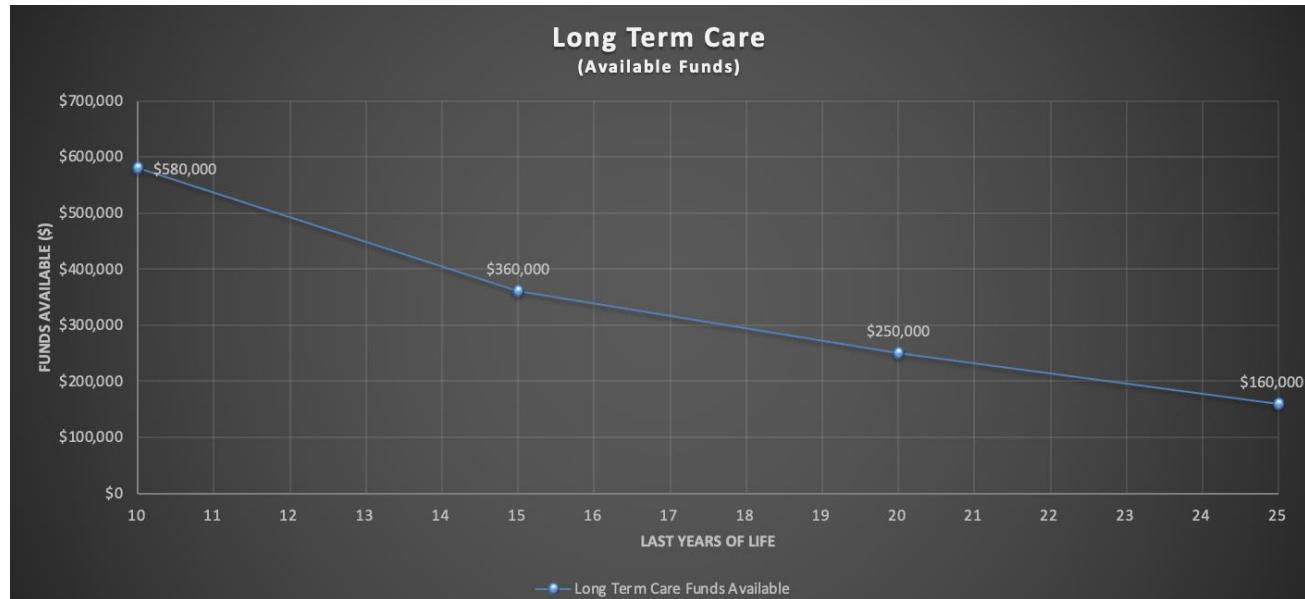


- This graph shows you the actual cash withdrawals needed vs the amount of cash available in each of your accounts
- It is likely better to withdraw cash from Traditional accounts and pay taxes on it, then reduce your bond/stock component of your taxable account
- The **LCF Planner** allows you to simulate this non-standard withdrawal sequence for any lifetime year

Goals & Optimization – *Long Term Care Expense Optimization*

Many retirees will need **Long Term Care in a Retirement Home** in the final years of their life. No one knows at what age they will need this care and how much money will be needed for this care. The **LCF Planner** maps out the amount of money you will have available for long term care for the final 3, 5, 10, and 15 years of your life while ensuring that you do not run out of money (with a **95% likelihood of success** using Monte Carlo Simulation)

Hsb Age	Recurring Expense	Misc Expense	Education Expense	LTC Funds - 3 yrs	LTC Funds - 5 yrs	LTC Funds - 10 yrs	LTC Funds - 15 yrs
60	\$60,000	\$40,000	\$30,000	\$0	\$0	\$0	\$0
61	\$61,800	\$30,000	\$55,000	\$1,000	\$1,000	\$1,000	\$1,000
62	\$63,654	\$20,000	\$0	\$2,000	\$2,000	\$2,000	\$2,000
63	\$65,564	\$20,000	\$0	\$3,000	\$3,000	\$3,000	\$3,000
64	\$67,531	\$120,000	\$0	\$12,000	\$12,000	\$12,000	\$12,000
65	\$69,556	\$50,000	\$0	\$12,000	\$12,000	\$12,000	\$12,000
66	\$70,927	\$20,000	\$0	\$12,000	\$12,000	\$12,000	\$12,000
67	\$72,317	\$20,000	\$0	\$12,000	\$12,000	\$12,000	\$12,000
68	\$73,726	\$150,000	\$0	\$12,000	\$12,000	\$12,000	\$12,000
69	\$75,155	\$20,000	\$0	\$10,000	\$10,000	\$10,000	\$160,000
70	\$76,603	\$20,000	\$0	\$10,000	\$10,000	\$10,000	\$160,000
71	\$78,071	\$10,000	\$0	\$10,000	\$10,000	\$10,000	\$160,000
72	\$79,557	\$10,000	\$0	\$10,000	\$10,000	\$10,000	\$160,000
73	\$81,063	\$10,000	\$0	\$16,000	\$16,000	\$16,000	\$160,000
74	\$82,587	\$10,000	\$0	\$16,000	\$16,000	\$250,000	\$160,000
75	\$84,130	\$10,000	\$0	\$16,000	\$16,000	\$250,000	\$160,000
76	\$85,691	\$10,000	\$0	\$100,000	\$100,000	\$250,000	\$160,000
77	\$87,270	\$40,000	\$0	\$105,000	\$105,000	\$250,000	\$160,000
78	\$88,867	\$10,000	\$0	\$110,250	\$110,250	\$250,000	\$160,000
79	\$90,481	\$0	\$0	\$115,763	\$360,000	\$250,000	\$160,000
80	\$92,112	\$0	\$0	\$121,551	\$360,000	\$250,000	\$160,000
81	\$93,759	\$0	\$0	\$127,628	\$360,000	\$250,000	\$160,000
82	\$95,422	\$0	\$0	\$100,000	\$360,000	\$250,000	\$160,000
83	\$97,100	\$0	\$0	\$105,000	\$360,000	\$250,000	\$160,000
84	\$98,794	\$0	\$0	\$580,000	\$360,000	\$250,000	\$160,000
85	\$100,501	\$0	\$0	\$580,000	\$360,000	\$250,000	\$160,000
86	\$102,222	\$0	\$0	\$580,000	\$360,000	\$250,000	\$160,000
87	\$103,956	\$0	\$0	\$580,000	\$360,000	\$250,000	\$160,000
88	\$105,702	\$0	\$0	\$580,000	\$360,000	\$250,000	\$160,000
89	\$107,459	\$0	\$0	\$580,000	\$360,000	\$250,000	\$160,000
90	\$109,227	\$0	\$0	\$580,000	\$360,000	\$250,000	\$160,000
91	\$111,004	\$0	\$0	\$580,000	\$360,000	\$250,000	\$160,000
92	\$112,789	\$0	\$0	\$580,000	\$360,000	\$250,000	\$160,000
93	\$114,581	\$0	\$0	\$580,000	\$360,000	\$250,000	\$160,000



NEXT STEPS

Next Steps – *What Do I Do Now?*

What do I do now? If you have met your retirement goals with an acceptable success rate using Monte Carlo Simulation, then....**Congratulations, you appear to be “On Track”!** However, if you have come up short, or would like to evaluate how robust is your plan, consider taking the flowing steps:

Step 1: The easiest thing to do is to “play” with your “controllable parameters”. Knowing the **Sensitivities**, consider changing one of more parameters (retirement age, current and retirement expenses, etc.) and see impact to your Net Worth.

Step 2: Model these different scenarios and compare to your Baseline Inputs – change one or more parameters in each Scenario and see how your Net Worth changes based on Fixed Rate of Return and Monte Carlo Simulations. Run different scenarios until you meet your retirement goals.

Step 3: Putting it all together.... By now you will have a pretty good idea of your finances and the changes you have to make to meet your financial goals. **Develop an Action Plan and stick to it.** Monitor your portfolio and make course corrections as unexpected or unplanned events occur.

Remember: **Solid Foundation + Good Decision Making = Worry Free Retirement**