MINERVA
PLANNING GROUP

FINAL **PLAN REVIEW**

John and Helen

May 8, 2018

The Clients

John and Helen Jones are two years away from retirement. Helen is 63; John is 64. John works for an Industrial Services company and has a decent 401(k) balance. Helen works for the CDC and has the Thrift Savings Plan (TSP) and Federal Employee Retirement System (FERS) pension. She is trying to decide whether to roll her TSP account into an IRA when she retires, or keep it where it is. She also wants to understand the mechanics of drawing FERS and Social Security. John is not sure whether they should retire at exactly the same time or have him retire first, maybe a year earlier than Helen. They are also keen to know what things would look like if Helen predeceased John, as he would receive half of her pension benefit in the event of her death.

John and Helen have two grown children who are doing OK financially—they don’t have serious concerns about needing to help. They do, however, worry about Helen’s father. He is in his mid-80s, and his health is declining. He is very private about his finances, but Helen worries he may not be in good shape. She has noticed final reminders of bills at his home and does not know if her dad is struggling to pay bills or just forgetting to. She would like to ensure they can help him if he needs to go into a nursing home in the next few years.

Helen and John are active members in their church and have a number of other charities they support on a regular basis. They also make regular contributions to their four grandkids' college funds. They have two big retirement wish list items: to go on a retirement celebration trip, and to purchase a lake house. They have an idea of what their dream lake house would cost but are willing to compromise and get something cheaper if necessary.

AGENDA

- Base plan
- Insurance coverage
- Estate documents
- Investment approach and target allocation

BASE PLAN ASSUMPTIONS

Core goal: Retirement

- Both retire in 2020, age 65 for Helen and 66 for John
- Base retirement expense of $89k/year, after taxes
- Healthcare expense of $12.9k/year, after taxes (treated separately from rest of retirement expense because of higher inflation rate)
- Additional spending goals:
    - Retirement celebration trip: $15k at retirement
    - Lake house: $24k per year, for 20 years
    - One-time expenses: $10k per year until plan ends for expenses such as roof, new car, HVAC etc.
    - Care for Helen’s father: $50k per year for 7 years

Retirement income

- Social Security: $30.7k for Helen at full retirement age of 66 years, 2 months. $34.6k for John at full retirement age of 66 years
- Pension (Helen)
    - FERS: $2.8k/month w/COLA (-1%) and $1.4k/month to survivor

Portfolio allocation

- 70/30 pre-retirement (8.75% return)
- 60/40 in retirement (8.27% return)

Assumed inflation of 3.96%, healthcare inflation of 6.5%

Plan end at age 95 for Helen and age 93 for John

BUDGET

Item	Monthly Budget	Annual Budget	Retirement Budget	
Mortgage payment (PITI)	$ 1,875	$ 22,495	$ (14,895)	Mortgage ends 2020, taxes and insurance costs continue
Car payment	$ 514	$ 6,168	$ (6,168)	Car payments end 2019
Car Insurance	$ 250	$ 3,000		
Gas	$ 200	$ 2,400		
Groceries	$ 600	$ 7,200		
Eating out	$ 600	$ 7,200		
Prescriptions	$ 175	$ 2,100		
Home care/Personal Care	$ 200	$ 2,400		
Hair & Nails	$ 300	$ 3,600		
Internet	$ 50	$ 600		
Cell Phone	$ 200	$ 2,400		
Utilities	$ 450	$ 5,400		
Home maintenance	$ 250	$ 3,000		
Yard care	$ 200	$ 2,400		
Cleaning	$ 200	$ 2,400		
Charitable Giving	$ 300	$ 3,600		
Church Giving	$ 300	$ 3,600		
529 Contributions for 4 grandkids	$ 2,000	$ 24,000		
Subscriptions	$ 150	$ 1,800		
Dry cleaning	$ 40	$ 480		
LTC Insurance for John and Helen	$ 300	$ 3,600		
TOTAL	**$ 9,154**	**$ 109,843**	**$ 88,780**	
Additional Retirement Expenses				
Retirement celebration trip	$ 15,000	First year only		
Lake House	$ 24,000	Every year for 20 years		
Helen's father	$ 50,000	Every year for 7 years		
One-time expenses	$ 10,000	Every year until end of plan		

ASSETS AND INCOME

Assets

Description	Owner	Current Value	Annual Additions
Manual			
401(k)	John	$731,834	$17,719
Fidelity brokerage account	Helen	$122,835	
Inherited IRA	John	$213,198	
Roth IRA	John	$149,580	$3,000
Thrift Savings Plan	Helen	$356,000	$10,500
Total All Assets		**$1,573,447**	**$31,219**

Income

Description	Value
Social Security	John will file a normal application at age 66. He will receive $34,666 in retirement benefits at age 66.
	Helen will file a normal application at age 66 Years, 2 Months. She will receive $30,708 in retirement benefits at age 66.

Description	Owner	Value
FERS Pension Income	Helen	$34,646 from Helen's Retirement to End of Plan (50% to Survivor)

- Assumed COLA of inflation less 1% for FERS pension
- Retirement is age 66 for John and 65 for Helen
- Plan assumes both draw Social Security at FRA

BASE PLAN RESULTS

Estimated % of Goal Funded	
Base Plan	
Average Return	Bad Timing
100%	100%
100%	58%
$677,222	$88,740
$2,439,595	$319,675

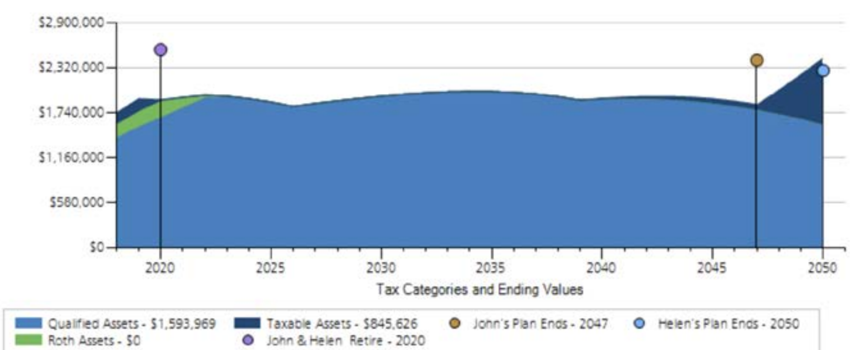
Likelihood of Funding All Goals

In Confidence Zone

$4,029,852

Explore

Portfolio Value Graph



BASE PLAN DETAILS

		Beginning Portfolio Value							Goals - Funds Used							
									Needs		Wants					
Event or Ages	Year	Earmarked	Fund All Goals	Additions To Assets	Other Additions	Post Retirement Income	Investment Earnings	Taxes	10 Health Care	10 Retirement	7 Lake house	7 Provide Care for Helen's Dad	7 Travel	7 Anything Else	Ending Portfolio Value
64 / 63	2018	$0	$1,573,447	$31,219	$0	$0	$140,150	$6,148							$1,738,668
65 / 64	2019	$0	$1,738,668	$32,336	$0	$0	$154,682	$6,792							$1,918,895
John & Helen Retire	**2020**	**$0**	**$1,918,895**	**$0**	**$0**	**$72,111**	**$145,613**	**$12,449**	**$14,734**	**$96,188**	**$25,938**	**$54,038**	**$16,212**	**$10,808**	**$1,906,252**
67 / 66	2021	$0	$1,906,252	$0	$0	$109,123	$147,942	$16,410	$15,692	$99,997	$26,966	$56,178		$11,236	$1,936,838
68 / 67	2022	$0	$1,936,838	$0	$0	$113,088	$150,150	$15,540	$16,712	$103,957	$28,033	$58,403		$11,681	$1,965,750
69 / 68	2023	$0	$1,965,750	$0	$0	$117,199	$149,122	$51,912	$17,798	$108,074	$29,144	$60,716		$12,143	$1,952,284
70 / 69	2024	$0	$1,952,284	$0	$0	$121,462	$146,684	$62,712	$18,955	$112,354	$30,298	$63,120		$12,624	$1,920,367
71 / 70	2025	$0	$1,920,367	$0	$0	$125,882	$143,370	$65,402	$20,187	$116,803	$31,497	$65,620		$13,124	$1,876,986
72 / 71	2026	$0	$1,876,986	$0	$0	$130,466	$139,077	$68,211	$21,499	$121,428	$32,745	$68,218		$13,644	$1,820,784
73 / 72	2027	$0	$1,820,784	$0	$0	$135,220	$141,961	$42,073	$22,896	$126,237	$34,041			$14,184	$1,858,533
74 / 73	2028	$0	$1,858,533	$0	$0	$140,150	$144,639	$43,966	$24,385	$131,236	$35,389			$14,746	$1,893,600
75 / 74	2029	$0	$1,893,600	$0	$0	$145,262	$147,073	$45,948	$25,970	$136,433	$36,791			$15,330	$1,925,464
76 / 75	2030	$0	$1,925,464	$0	$0	$150,564	$149,218	$48,024	$27,658	$141,836	$38,248			$15,937	$1,953,545
77 / 76	2031	$0	$1,953,545	$0	$0	$156,063	$151,024	$50,199	$29,456	$147,452	$39,762			$16,568	$1,977,195
78 / 77	2032	$0	$1,977,195	$0	$0	$161,765	$152,438	$52,477	$31,370	$153,291	$41,337			$17,224	$1,995,698

To answer some of Helen and John's questions about what effects different scenarios would have on the plan, we developed some alternative plans (on the next page).

The first plan on the next page indicates what effect spending less on the lake house would have on the plan's probability of success.

The second plan indicates what the plan would look like if they decided to spend less on the lake house and if John were to retire a year earlier than Helen.

The third plan indicates what would need to change in the plan for John's plan to have a reasonable chance of success if Helen were to predecease him: namely, no lake house and reduced spending.

ALTERNATIVE PLANS

- Both retire in 2020: John age 66, Helen age 65
- Spend $10k less on lake house per year: $14k/year instead of $24k
- Rest of expenses remain same
- Plan ends age 93 for John, age 95 for Helen

- John retires in 2019, age 65, Helen retires 2020 age 65
- Spend $10k less on lake house per year: $14k/year instead of $24k
- Rest of expenses remain same
- Plan ends age 93 for John, age 95 for Helen

- Helen predeceases John
- John receives 50% of Helen's pension
- Spend $74k in base retirement expenses ($15k less than if both retired)
- No lake house, rest of expenses remain same
- Plan ends age 65 for Helen, 93 for John

INSURANCE

Life insurance

- Optimal use is typically for income replacement and/or debt paydown

Disability

- Short term: often, most economical to have emergency fund
- Long term disability: costly, and more challenging to purchase if income is highly variable

Long term care—will review John and Helen's policy

Property and casualty

- Auto: confirm comfortable with deductible
- Homeowners insurance
  - Ensure deductible at acceptable level
  - Confirm coverage is sufficient for replacement cost
- Umbrella: should be 1 to 1.5 times net worth

ESTATE DOCUMENTS

Will

Powers of attorney

- Georgia Advanced Health Directive
- Financial power of attorney—springing/non-springing

Beneficiary designations

- Retirement accounts
- Life insurance and annuities

INVESTMENT APPROACH

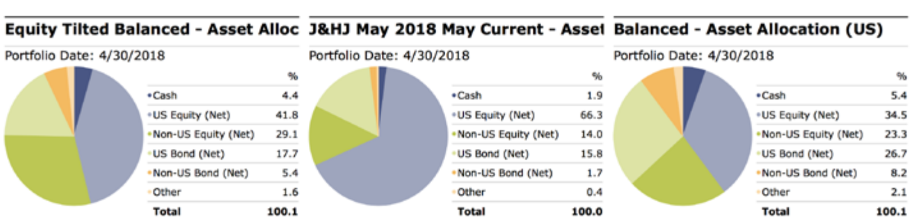
Strategic Allocation
- Safety of principal
- Diversification
- Mean return
- Maximum drawdown

Tactical Allocation
- Probability analysis
- Fat pitch/unfavorable risk/return

Fund Selection
- Low cost
- Clear strategy
- Focus fund
- Value tilt
- Tenured manager
- Shareholder focus

Rebalance
- If client needs change
- When outside tolerance
- If fund change needed

PORTFOLIO REVIEW



In order to bring John and Helen’s portfolio in line with Minerva’s equity tilted balanced portfolio, which is what the plan is predicated on, we would make the following recommendations:

1. Need to decrease US-Equity especially large cap allocation by 40%
2. Need to increase Foreign Developed and Emerging market allocation by 100%
3. Need to increase US bond exposure by 10% and reduce the duration of the bond portfolio
4. Need to increase non-US bond by 300%, especially emerging market