REVEALED

Managing your money well can help give you the tools to be a better follower of Christ!

All Saints

Financial Wellness Class

Legal Disclaimer

- We are **NOT** certified financial planners
- We are here to tell what has worked for us and to give you our opinions.
- You have to choose what is right for you.

Overview of the Classes

Our Curriculum

Based on a mix of Dave Ramsey Resources & other resources we found helpful

Our Roadmap

- Tools
  - Retirement Vehicles
  - Investment Allocation
  - Safe Withdrawal Rate (Trinity Study)
- Building Retirement
  - Historical Simulations
  - Monte Carlo Simulations
  - Examples

Retirement Vehicles

- Tax Advantaged
  - 401k
    - EMPLOYER MATCH $$
      - Traditional
      - Roth
  - Individual Retirement Plan (IRA)
    - Traditional
      - Tax Deferred Growth
    - Roth IRA
      - Tax Free Growth
  - Cannot be withdrawn in most cases **without penalty** before retirement age
- Traditional Brokerage Account
  - All after tax dollars
    - Capital Gains Tax Vs Income Tax

Investment Allocation

Investment Allocations

- Dave Ramsey
  - Mutual Funds – nearly all equities!
- Allocations may change as retirement nears
  - Stocks vs Bonds
  - Sequence of Return Risk

**** Stay tuned to the Trinity study in a few slides!**

Safe Withdrawal Rate

- Trinity Study
  - Portfolio Performance vs Asset Allocation
    - Period: 1926-1995
    - Stocks: S&P500
    - Bonds: Long Term – High Grade Domestic Bonds

Portfolio Composition/ Payout Period	Withdrawal Rate as a % of Initial Portfolio Value									
	3	4	5	6	7	8	9	10	11	12
100% Stocks										
15 Years	100	100	100	91	79	70	63	55	43	34
20 Years	100	100	88	75	63	53	43	33	29	24
25 Years	100	100	87	70	59	46	35	30	26	20
30 Years	100	95	85	68	59	41	34	34	27	15
75% Stocks-25% Bonds										
15 Years	100	100	100	95	82	68	64	46	36	27
20 Years	100	100	90	75	61	51	37	27	20	12
25 Years	100	100	85	65	50	37	30	22	7	2
30 Years	100	98	83	68	49	34	22	7	2	0
50% Stocks-50% Bonds										
15 Years	100	100	100	93	79	64	50	32	23	13
20 Years	100	100	90	75	55	33	22	10	0	0
25 Years	100	100	80	57	37	20	7	0	0	0
30 Years	100	95	76	51	17	5	0	0	0	0
25% Stocks-75% Bonds										
15 Years	100	100	100	89	70	50	32	18	13	7
20 Years	100	100	82	47	31	16	8	4	0	0
25 Years	100	93	48	24	15	4	2	0	0	0
30 Years	100	71	27	20	5	0	0	0	0	0
100% Bonds										
15 Years	100	100	100	71	39	21	18	16	14	9
20 Years	100	90	47	20	14	12	10	2	0	0
25 Years	100	46	17	15	11	2	0	0	0	0
30 Years	80	20	17	12	0	0	0	0	0	0

Safe Withdrawal Rate

- Conclusions
  - Withdrawal periods longer than fifteen years dramatically reduced the probability of success at withdrawal rates exceeding five percent.
  - Bonds increase the success rate for lower to mid level withdrawal rates, but most retirees would benefit with at least a 50 percent allocation to stocks.
  - Retirees who want inflation-adjusted withdrawals must expect a substantially lower withdrawal rate from the initial portfolio.
  - Stock-dominated portfolios using a three to four percent withdrawal rate may create rich heirs at the expense of the retiree's current standard of living.
  - For a payout of fifteen years or less, a withdrawal rate of eight to nine percent from a stock-dominated portfolio appears sustainable.

What this means for my Retirement?

Three Things

- Your Year
- Your Annual Spending
- Your Risk Level (SWR)

Your Year

- When do you want to retire?
  - Social Security – 67
  - IRA Withdrawals – 59 ½
- The earlier you retire the longer your funds need to last!

Your Annual Spending

- How much money do you need to retire?
  - What do you want your retirement to look like?
    - Travel? Restaurants? Hobbies?
  - Retirement dreams may cost more than their work life!
  - Your budget should guide you!
- How much do you need to pay yourself annually?
  - Kids are out of the house
  - House paid off?
  - Medical Expenses?

Your Risk Level

(Financial Models & Safe Withdrawal Rate)

- Can’t Predict The Future
- Can simulate Scenarios
  - Re-Run Historical Data (“*backtesting*”)
    - Would I have survived the Great Depression?
  - Statistically varying “Monte-Carlo” Simulations
    - Produce synthetic (random) portfolio performance

All models are wrong - some are useful!

An Example

- Fred and Sally
  - 25 Years Old, Married, 2 kids
  - Annual Income: $75,000
- Their Retirement Goal:
  - Retire at 65!
    - Live to 95
  - $75,000 a year
    - Annual everyday expenses: $60,000
    - Annual Travel: $15000

Their Year
2060

Annual Spending
$75,000

Retirement Length
30 Years

Years until Retirement
40

Safe Withdrawal Rate

All Stocks

ALL Stocks
No Bonds

Retirement
Length

Portfolio Composition/ Payout Period	Withdrawal Rate as a % of Initial Portfolio Value									
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100% Stocks										
15 Years	100	100	100	91	79	70	63	55	43	34
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Withdrawal
Rate

Percentage of Successful Payout Periods
adjusted for inflation and deflation

Safe Withdrawal Rate

75% Stock 25% Bonds

Portfolio Composition/ Payout Period	Withdrawal Rate as a % of Initial Portfolio Value									
	3	4	5	6	7	8	9	10	11	12
100% Stocks										
15 Years	100	100	100	91	79	70	63	55	43	34
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ALL Stocks No Bonds

Retirement Length

Withdrawal Rate

Percentage of Successful Payout Periods adjusted for inflation and deflation

Safe Withdrawal Rate

Fred And Sally

Portfolio Composition/ Payout Period	Withdrawal Rate as a % of Initial Portfolio Value									
	3	4	5	6	7	8	9	10	11	12
100% Stocks										
15 Years	100	1[illegible]	100	91	79	70	63	55	43	34
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75% Stocks
25% Bonds

Retirement Length

Withdrawal Rate

Percentage of Successful Payout Periods adjusted for inflation and deflation

Fred and Sally Choose 4% Rate with 75/25 Mix

Fred and Sally’s Number

- Safe Withdrawal Rate SWR: 4%
- Annual Income Needs: $75,000

$$YourNumber = \frac{AnnualIncome}{SafeWithdrawalRate}$$

$$YourNumber = \frac{\$75000}{4\%} = \$1,875,000$$

Can they get there?

Fred and Sally are contributing 15% of their income.

S&P500 Average Annual Return 10%

End Amount | Additional Contribution | Return Rate | Starting Amount | Investment Length

Starting Amount	$0
After	40 years
Return Rate	10 %
Compound	annually
Additional Contribution	$938

Contribute at the ○ beginning ◉ end of each ◉ month ○ year

Calculate

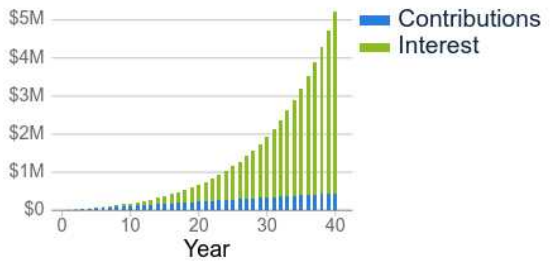
Results

End Balance	**$5,206,226.56**
Starting Amount	$0.00
Total Contributions	$450,240.00
Total Interest	$4,755,986.56

Accumulation Schedule

Annual Schedule Monthly Schedule

Year	Deposit	Interest	Ending balance
1	$11,256.00	$507.02	$11,763.02
2	$11,256.00	$1,683.33	$24,702.35
3	$11,256.00	$2,977.26	$38,935.61
4	$11,256.00	$4,400.58	$54,592.19
5	$11,256.00	$5,966.24	$71,814.43



What about taxes?

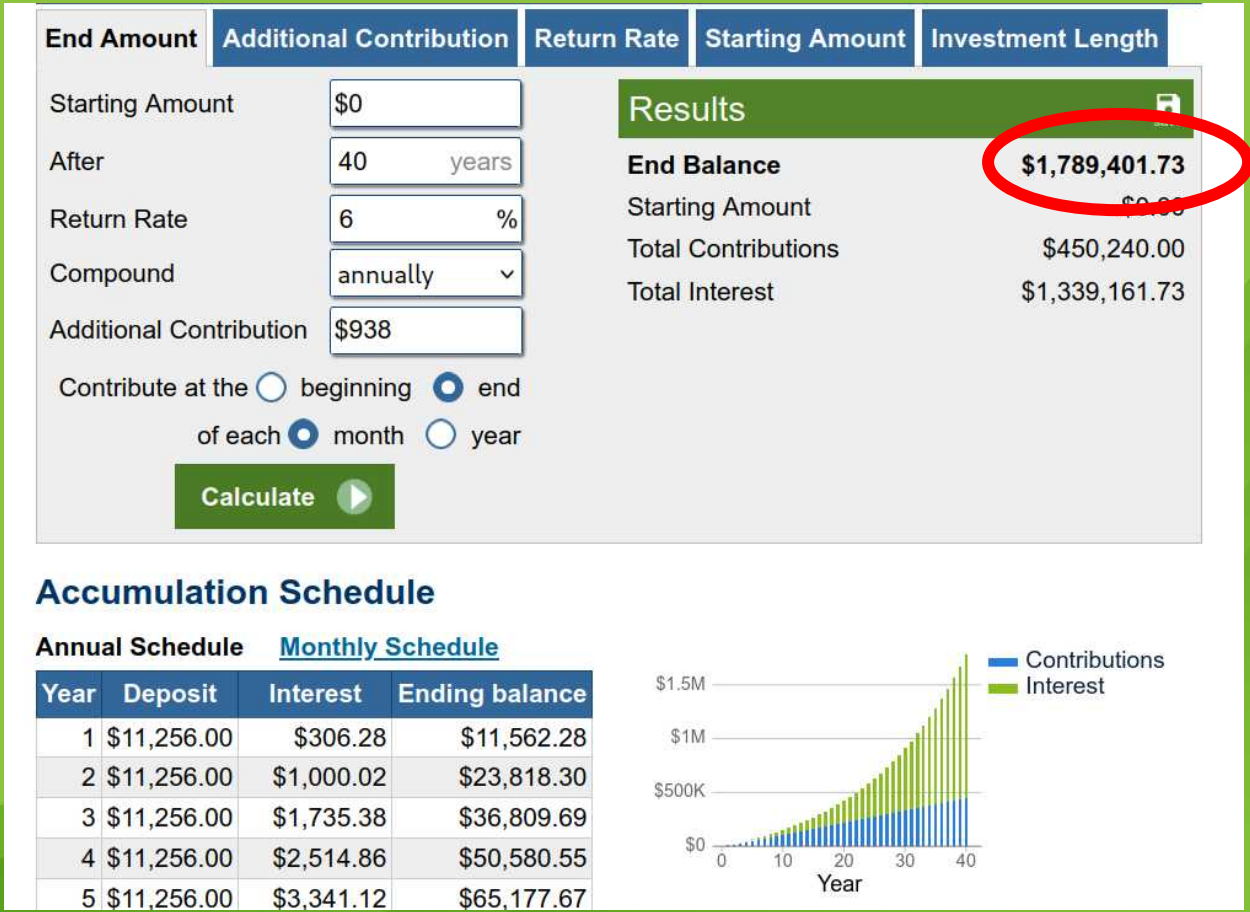
- Fred and Sally used ROTH IRAs and ROTH 401k – No taxes!

What About inflation?

S&P500 Annual Average Return adjusted for inflation: ~6%

Fred and Sally NEVER got a raise!

Never got a 401k match!



End Amount | Additional Contribution | Return Rate | Starting Amount | Investment Length

Starting Amount $0
After 40 years
Return Rate 6 %
Compound annually
Additional Contribution $938
Contribute at the beginning end of each month year
Calculate

Results

End Balance	**$1,789,401.73**
Starting Amount	
Total Contributions	$450,240.00
Total Interest	$1,339,161.73

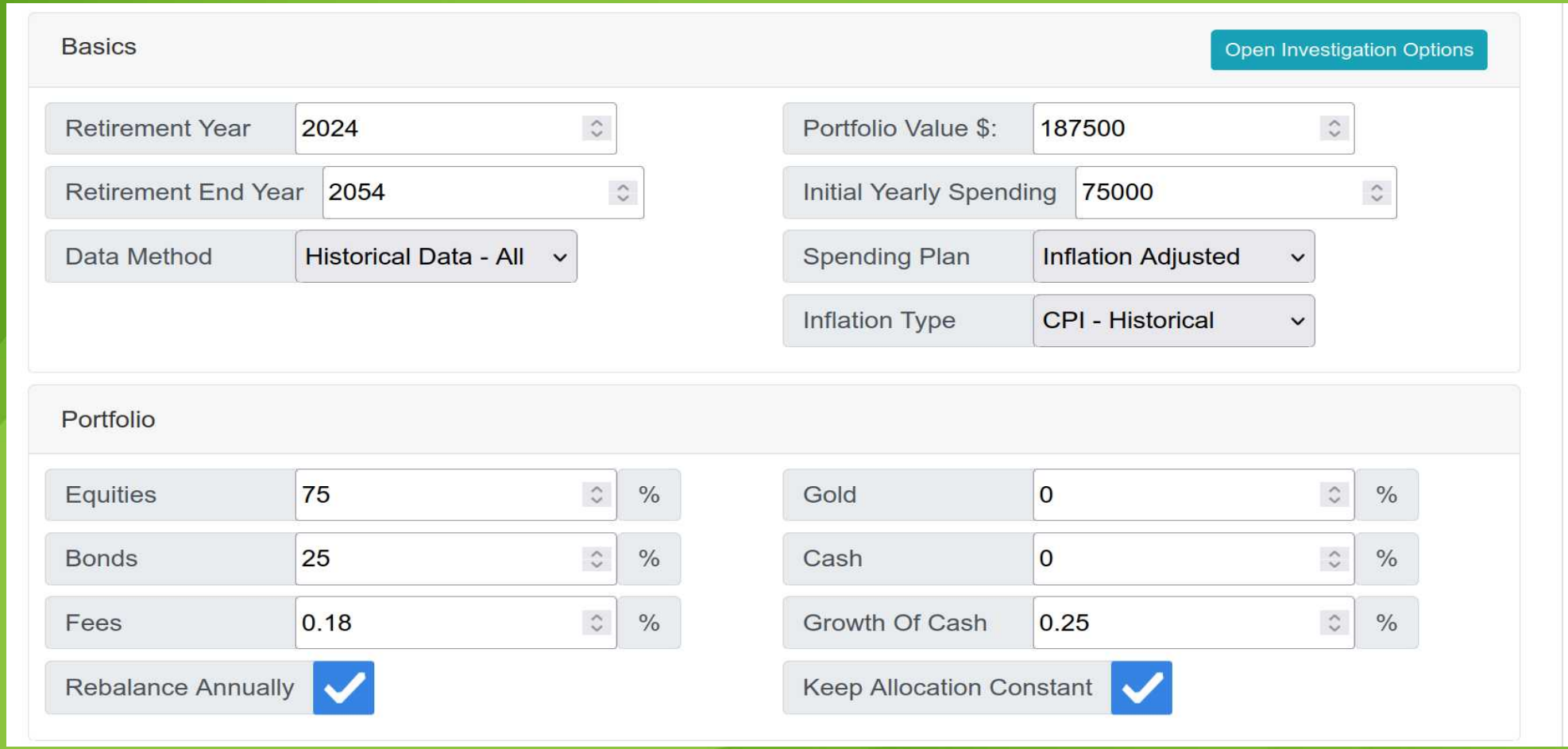
Accumulation Schedule

Annual Schedule Monthly Schedule

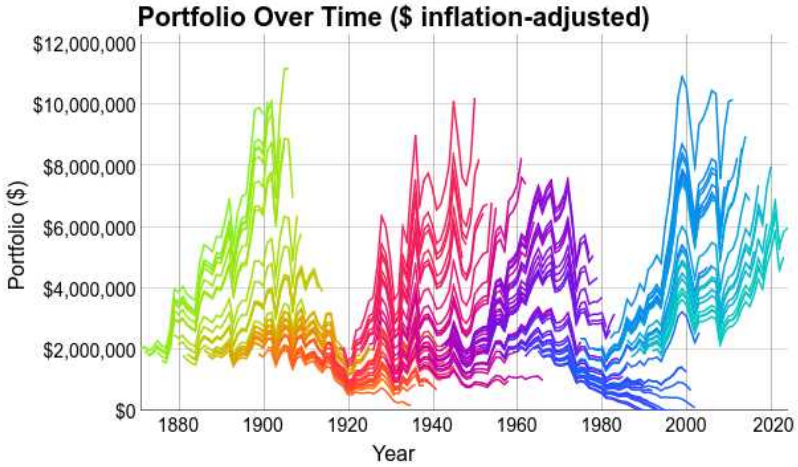
Year	Deposit	Interest	Ending balance
1	$11,256.00	$306.28	$11,562.28
2	$11,256.00	$1,000.02	$23,818.30
3	$11,256.00	$1,735.38	$36,809.69
4	$11,256.00	$2,514.86	$50,580.55
5	$11,256.00	$3,341.12	$65,177.67

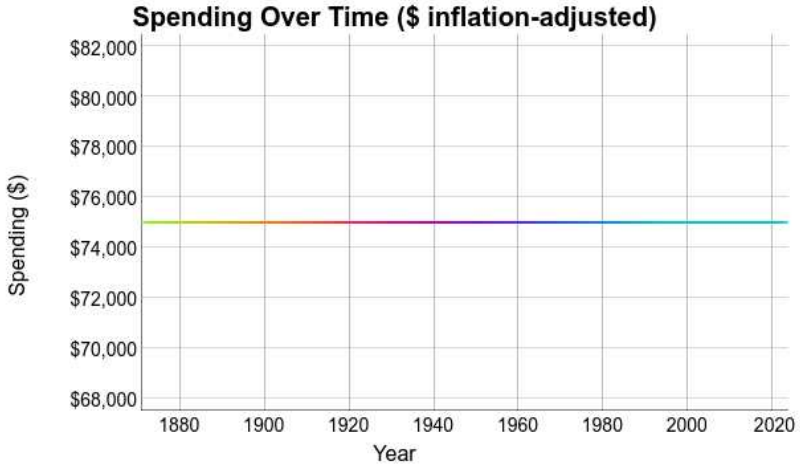
Will it work?

- https://www.cfiresim.com/



Setting the retirement year to this year to test the portfolio at retirement.
Assumes you will pull $75000 a year, adjusted for inflation in each year (constant spending power)





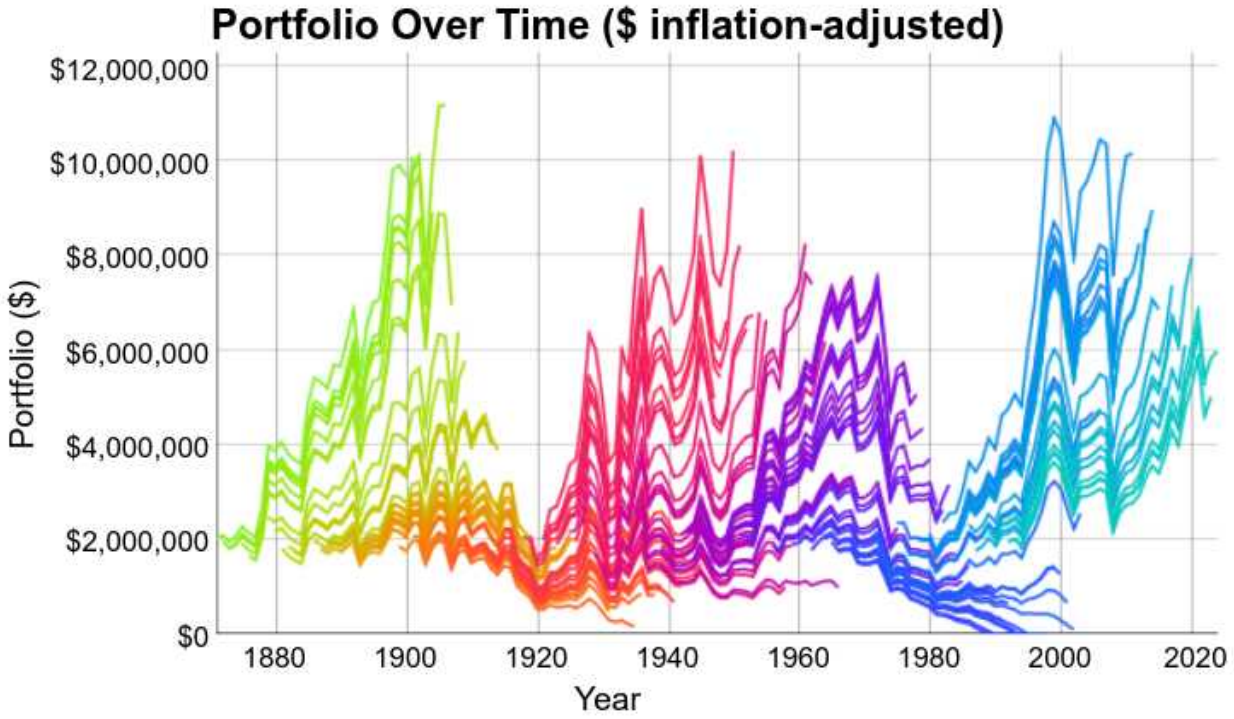
Success Rate	Average Portfolio at Retirement
96.00% - Failed 5 of 125 total cycles.	No value given. (Retirement Start Year was earlier than current year.)

	Ending Portfolio	Yearly Withdrawals	Total Withdrawals
Average	$3,924,207	$75,000	$2,250,000
Median	$3,166,458	$75,000	$2,250,000
St. Dev.	$2,922,167	$0	$0
Highest	$11,190,428	$75,000	$2,250,000
Lowest	$0	$75,000	$2,250,000

Spending Analysis	First 5 years	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Average	$75,000	$75,000	$75,000	$75,000	$75,000
Median	$75,000	$75,000	$75,000	$75,000	$75,000
St. Dev.	$0	$0	$0	$0	$0
Highest	$75,000	$75,000	$75,000	$75,000	$75,000
Lowest	$75,000	$75,000	$75,000	$75,000	$75,000

Single Portfolio Dips (bottom 50) Show

https://www.cfiresim.com/c69ce312-fc73-4f1f-988a-dbbae11a378f



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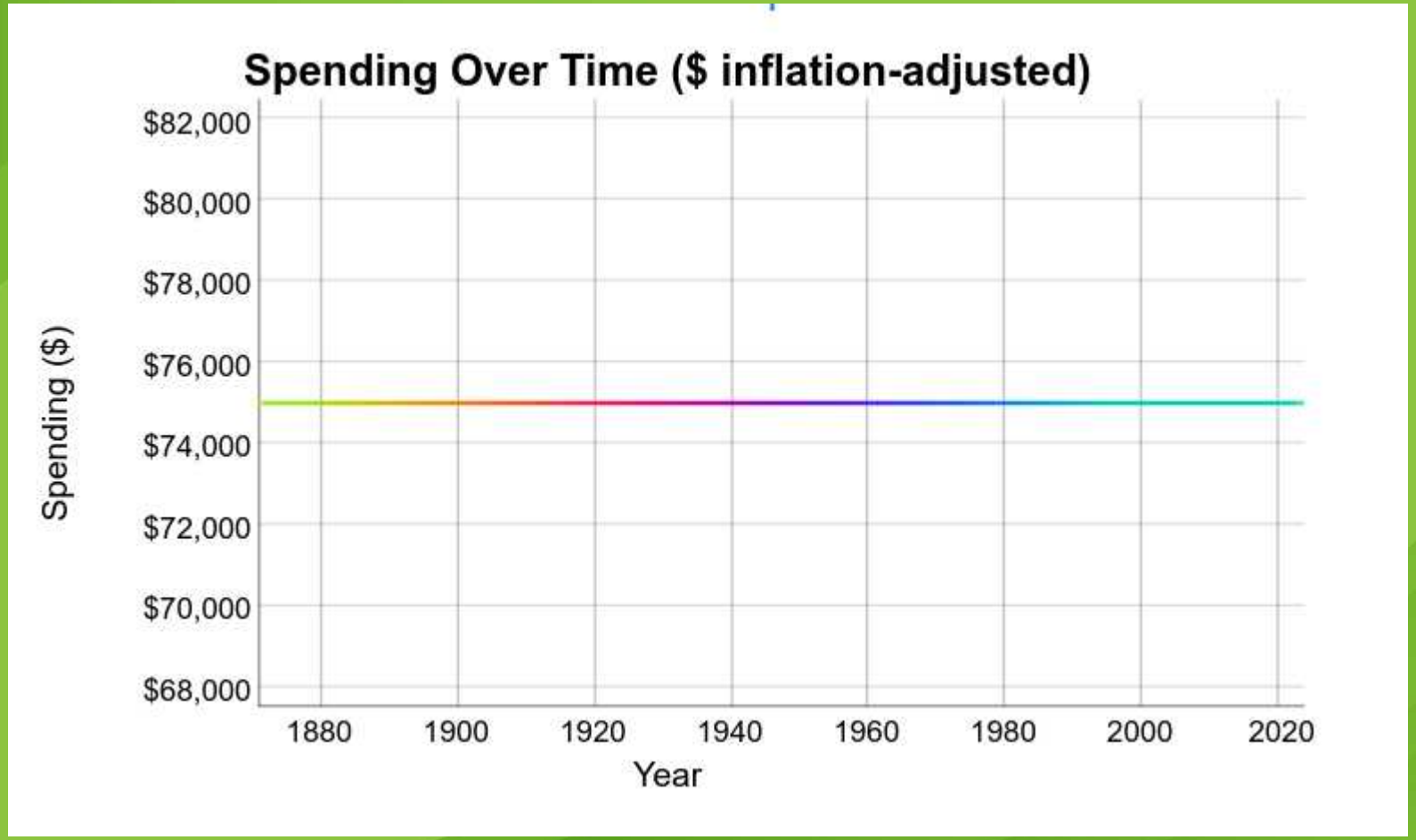
Spending Over Time ($ inflation-adjusted)
$82,000
$80,000
$78,000
$76,000
$74,000
$72,000
$70,000
$68,000
Spending ($)
1880
1900
1920
1940
1960
1980
2000
2020
Year

	Ending Portfolio	Yearly Withdrawals	Total Withdrawals
Average	$3,924,207	$75,000	$2,250,000
Median	$3,166,458	$75,000	$2,250,000
St. Dev.	$2,922,167	$0	$0
Highest	$11,190,428	$75,000	$2,250,000
Lowest	$0	$75,000	$2,250,000
Lowest 10%	$711,152	$75,000	$2,250,000
Lowest 5%	$108,810	$75,000	$2,250,000

Single Portfolio Dips (bottom 50) Hide

Portfolio	Starting Year	Cycle #
$0	1966	23
$0	1969	25
$0	1965	25
$0	1968	26
$0	1967	29
$7,487	1967	28
$11,342	1968	25
$39,031	1969	24
$57,607	1966	22
$60,527	1965	24
$65,387	1964	29
$83,059	1967	27

Fred and Sally

- Succeeded in 96% of all historical years
  - Never got a pay raise
  - Never got Social Security
  - Never adjusted their income in retirement to match market forces
  - 401k never got an employer match

Conclusions

- Compound interest is powerful!!!! Start NOW!
- Stay the course – Constant steady investment over time wins
- Many other factors can be considered,
  - Taxes – Required Minimum Distributions, Variable withdrawal strategies … Etc
  - Could be a whole class on its own!

Electronic Materials:

https://git.dnrmiller.com/revealed/revealed/wiki/Home