## HATFIELDS AND McCOYS

## The luck of the draw

By retirement at age 65, both the Hatfields and McCoys have worked hard enough to put away $\$ 500,000$ for their future. As they settle into their new life after work, they leave their retirement funds in the stock market. Both couples are prudent. Factoring for inflation using a 3\% rise in their annual income to accommodate it, they take only $4 \%$ of their stock market portfolio out every year.

The chart below represents hypothetical market returns over a period of 30 years. For this example the McCoys experience S\&P 500® returns from 1979 to 2009, while the Hatfields experience these same returns - in the opposite chronological order. Both families experience a 9\% average annual return over these 30 year periods, but the Hatfields' early negative returns had a profound effect on their retirement nest egg.

## // SEQUENCE OF RETURNS MATTERS

The order in which you experience losses and gains can be more important than the losses and gains themselves.

With the S\&P $500^{\circledR}$ near historic highs, sequence of returns may be more important than ever.

## THE HATFIELDS

## Significant market setbacks in the first year of retirement

Receive $\$ 664,319$ over 24 years
Ran out of retirement income at 89

THE McCOYS
No significant market setback until 21 years into retirement

Receive \$951,508 over 30 years
\$2,679,209 left over

## \$2,679,209

McCoys at age 95

## AVERAGE ANNUAL NET RETURN 9\%

This is a hypothetical example used for illustrative purposes only, assuming an initial premium of \$500,000. Chart assumes a $4 \%$ rate of withdrawal beginning in year 1, with a $3 \%$ annual increase of the net withdrawal amount to account for inflation. Actual S\&P 500 ${ }^{\circledR}$ historical data from 01/02/1979 to 01/02/2009 has been used in this graph. The hypothetical illustration does not consider the impact of taxes, which would reduce all values. Time period selected because of the extreme volatility during the 2000s, to better illustrate the impact of significant losses early in retirement. Using the current time period would demonstrate less dramatic results. Returns are based upon the Standard \& Poor's ${ }^{\circledR} 500$ Index (S\&P $500{ }^{\circledR}$ Index)
1 historical data from 1979-2009. S\&P $500^{\circledR}$ Index returns for the Hatfields are in reverse chronological order. The S\&P 500 ${ }^{\circledR}$ Index is an unmanaged group of large company stocks. It is not possible to invest directly in an index. Past performance does not guarantee future results.

The chart below demonstrates how, in spite of an average 9\% net rate of return for the period, the Hatfield's early negative returns profoundly impacted their retirement nest egg.

THE HATFIELDS (EARLY LOSS)

| Hypothetical Net Return | Withdrawal | Balance |  | Hypothetical Net Return | Withdrawal | Balance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 500,000 |  |  |  | 500,000 |
| -35.61\% | 20,000 | 301,941 | 66 | 9.34\% | 20,000 | 526,676 |
| 2.16\% | 20,600 | 287,855 |  | 28.91\% | 20,600 | 658,362 |
| 11.65\% | 21,218 | 300,168 | (6) | -9.98\% | 21,218 | 571,472 |
| 5.55\% | 21,855 | 294,974 |  | 12.71\% | 21,855 | 622,251 |
| 8.44\% | 22,510 | 297,372 | 70 | 18.58\% | 22,510 | 715,339 |
| 21.94\% | 23,185 | 339,432 |  | 0.81\% | 23,185 | 697,953 |
| -21.27\% | 23,881 | 243,342 | (2) | 26.74\% | 23,881 | 860,705 |
| -10.02\% | 24,597 | 194,358 | 73) | 17.59\% | 24,597 | 987,477 |
| -11.82\% | 25,335 | 146,057 | 74) | 3.85\% | 25,335 | 1,000,166 |
| 18.49\% | 26,095 | 146,973 | 75 | 7.57\% | 26,095 | 1,049,765 |
| 25.95\% | 26,878 | 158,240 |  | 30.65\% | 26,878 | 1,344,630 |
| 32.30\% | 27,685 | 181,662 |  | -9.24\% | 27,685 | 1,192,684 |
| 18.73\% | 28,515 | 187,177 | 78 | 27.82\% | 28,515 | 1,495,943 |
| 35.20\% | 29,371 | 223,698 |  | 4.34\% | 29,371 | 1,531,535 |
| -1.36\% | 30,252 | 190,404 | (80) | 6.90\% | 30,252 | 1,607,026 |
| 6.90\% | 31,159 | 172,390 | (81) | -1.36\% | 31,159 | 1,554,011 |
| 4.34\% | 32,094 | 147,782 | 82 | 35.20\% | 32,094 | 2,068,973 |
| 27.82\% | 33,057 | 155,835 | 83 | 18.73\% | 33,057 | 2,423,493 |
| -9.24\% | 34,049 | 107,385 | (84) | 32.30\% | 34,049 | 3,172,152 |
| 30.65\% | 35,070 | 105,227 | 85 | 25.95\% | 35,070 | 3,960,376 |
| 7.57\% | 36,122 | 77,069 |  | 18.49\% | 36,122 | 4,656,671 |
| 3.85\% | 37,206 | 42,831 |  | -11.82\% | 37,206 | 4,069,229 |
| 17.59\% | 38,322 | 12,041 | 8 | -10.02\% | 38,322 | 3,623,118 |
| 26.74\% | 15,261 | 0 | 89 | -21.27\% | 39,472 | 2,812,878 |
| 0.81\% |  |  | 90 | 21.94\% | 40,656 | 3,389,395 |
| 18.58\% |  |  | 91 | 8.44\% | 41,876 | 3,633,720 |
| 12.71\% |  |  | 92 | 5.55\% | 43,132 | 3,792,274 |
| -9.98\% |  |  | 93 | 11.65\% | 44,426 | 4,189,602 |
| 28.91\% |  |  | 94 | 2.16\% | 45,759 | 4,234,225 |
| 9.34\% |  |  | 95 | -35.61\% | 47,131 | 2,679,209 |
| AVERAGE ANNUAL NET RETURN 9\% |  |  |  |  |  |  |

## AVERAGE ANNUAL NET RETURN 9\%

This is a hypothetical example used for illustrative purposes only, assuming an initial premium of \$500,000. The hypothetical illustration does not consider the impact of taxes, which would reduce all values.
Table assumes a $4 \%$ rate of withdrawal beginning in year 1 , with a $3 \%$ annual increase of the net withdrawal amount to account for inflation. Actual S\&P $500^{\circledR}$ historical data from 01/02/1979 to 01/02/2009 has been used in this graph.
Circled years in this table indicate years of negative returns.

1. Stock market decline is based on the S\&P $500^{\circledR}$ Index. NYU Stern School of Business, Annual Returns on Stock, T. Bonds and T. Bills: 1928 - Current http://bit.ly/1rr5h3v (Feb. 2015)

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