

Evaluating Retirement Planning: The Proper Mix of Investments?

Woodrow D. Richardson
Rachel Graefe-Anderson
University of Mary Washington

Stacie glanced at her desk and saw the manila envelope peeking out from under a stack of magazines on her desk. “Oh snap! I promised Leon and Billie that I’d review their current retirement portfolio,” she whined to herself. It seemed like an easy thing when she promised to review her aunt and uncle’s retirement portfolio before her annual visit with the couple and their children at the beach. Now she would see them in less than two weeks and she had only glanced at the material they had provided her. Since the death of her own mother and father, Uncle Leon and Aunt Billie had been her surrogate parents. Despite having three kids of their own, they helped her accept the loss of her parents, graduate high school, pay for business school, and land her first job. She glanced at the photo of the entire family standing on the beach at sunset and thought, “they never hesitated to take me in, not even for a minute.” She pulled the envelope out from under the stack on her desk and headed to the kitchen to put on some coffee – it would take her awhile to review the retirement material and get her thoughts together regarding the changes (if any) she would recommend to her aunt and uncle.

Leon and Billie Reynolds

Leon and Billie met when Leon came to the University of the Atlantic at Baltimore (UAB) for a job interview. Leon’s mentor introduced Leon to Billie at a faculty coffee. It was a crowded room and the introduction lasted only a minute or two. Two months later and after Leon had accepted the faculty position at UAB, the two met again at an academic conference and went to dinner with colleagues. By the end of the night Leon and Billie were sitting in the hotel lobby discussing marriage. Five months later they were married and had been together for the past 21 years. “Pretty rash behavior for a couple of button-down engineering professors,” Stacie thought to herself.

As Stacie reviewed the information, she was reminded that while Billie started her career at UAB, Uncle Leon had worked four years at the University of Central Florida before coming to UAB. After working together at UAB for 12 years (13 for Billie), the couple moved to Bishop State University (BSU) where they remained six years. Currently they were at Midwest State University (MSU) where they were in their fourth year. Since beginning their academic careers, each had invested their retirement savings with Teachers Insurance and Annuity Association (TIAA) and College Retirement Equities Fund (CREF).

TIAA-CREF

Teachers Insurance and Annuity Association - College Retirement Equities Fund (TIAA-CREF) was founded by the Carnegie Corporation and Foundation in 1919 as a pension system for professors. It was a Fortune 100 financial services organization and a leading retirement provider for people who work in the academic, research, medical and cultural fields. TIAA-CREF served 3.7 million active and retired employees participating at more than 15,000 institutions and had \$487 billion in assets under management (as of 3/31/12). In 1952, the

organization created the variable annuity known as the College Retirement Equities Fund ("CREF") to allow plan participants to invest in the stock market. (See https://www.tiaa-cref.org/public/about/identity/get_to_know_us/company-stats-facts).

TIAA-CREF offered a wide-range of products and services to help its clients enhance their financial position. Some the products/services offered by the company were:

- Retirement Plans,
- Funds and Annuities,
- Advice and Planning,
- Life Insurance,
- Socially Responsible Investing.

TIAA-CREF offered defined contribution retirement plans through employers. These plans were sometimes referred to as retirement (or group retirement) annuity contracts. Typically, contributions were made on a tax-deferred basis. The employer determined the plan's features, such as the contribution schedule, investment choices, income options and vesting rules. The employee decided how to allocate the contributions among the investment choices — and when the time came, how you wanted to take the benefits.

TIAA was a traditional annuity fund invested in bonds, real estate, and other investments that generate interest income at a predictable rate. CREF was a variable annuity fund which included a variety of investment options such as stocks whose value was not guaranteed.

The Couple's Finances

Initially, Leon had his retirement contributions split 25% TIAA and 75% CREF, while Billie had split her contribution 50/50. Shortly after their marriage Leon convinced Billie to also adopt a 25% TIAA and 75% CREF split. Although TIAA-CREF had added several investment options through the years including a Social Choice account, several Bond accounts, and numerous Real Estate accounts, the couple had not altered their investment allocations. See Table 1 for the couple's account balances with TIAA-CREF.

**Table 1
Leon & Billie's TIAA-CREF Accounts**

Deferred Annuities with TIAA-CREF	Value
Guaranteed – TIAA Traditional	\$242,359
CREF Stock	\$849,505
Total Qualified Assets	\$1,091,864.00

Additionally, the couple had \$120,000 in various savings accounts, \$108,000 in cash sitting in a brokerage account and \$80,000 in brokerage equities. Stacie remembered asking Aunt Billie about this \$308,000 in cash and stocks outside their retirement accounts after initially receiving the packet. "That money is a combination of our emergency fund of \$60,000 with the rest going to college costs. We'll have three in college at the same time!" Aunt Billie had explained. Uncle Leon had chimed in, "We've told the kids all along that we will only pay up to the equivalent of in-state tuition plus room and board. If they want to go out-of-state or private they'll need to get scholarships." Stacie checked the tuition at the largest public university in the state and found

their tuition estimate for the upcoming year to be \$12,500. Room and board was estimated at \$9,000. Stacie also remembered that her aunt and uncle always paid cash for their cars and assumed some of this cash was being accumulated for their next auto purchase.

The next sheet in the envelope contained Uncle Leon’s estimate of their net worth as of the close of this past year (see Table 2). Stacie glanced at the net worth and thought the couple had done well to only have debt consisting of the mortgage. The couple had never been extravagant in the spending on themselves or their children, and Stacie knew they gave generously to their church, United Way, their various alma maters, and to the local public schools. Uncle Leon’s only “luxury” item was his 28-year old 17-foot boat. He’d bought it used and never tired of telling folks what a deal it was. Aunt Billie’s one extravagance was the annual “touring” vacation. In the past these 10-12 day driving vacations included trips to Yellowstone, the Grand Canyon, Niagara Falls, Mackinac Island, Disney World, and Arcadia Park in Maine. She always quipped how “we spent the summer touring the Hamptons.” Of course Billie was referring to the Hampton Inns she preferred staying in because they included breakfast. Stacie had heard Billie remark to Leon that these vacations cost around \$3,000 per year. The couple had refinanced their mortgage two years ago to a 15-year fixed conventional loan at 4.75% interest. Billie had offered that this brought their monthly mortgage payment to approximately \$2,900 including principle, interest, and escrow for insurance and taxes.

Table 2
Leon and Billie’s Net Worth

Assets	
Brokerage Cash	\$108,000
Brokerage Equities	\$ 80,000
Savings	\$120,000
Qualified Annuities	\$1,091,864
Residence	\$396,000
Total Assets	\$1,795,864
Liabilities	
Mortgage	(\$290,000)
Total Liabilities	(\$290,000)
Total Net Worth	\$1,505,864

Social Security Benefits

Stacie noticed two items entitled, "Your Social Security Statement" in the envelope. She skimmed the front page, but almost dropped her coffee when she read the following:

In 2016 we will begin paying more in benefits than we collect in taxes. Without changes by 2037 the Social Security Trust Fund will be exhausted and there will be enough money to pay only about 76 cents for each dollar of scheduled benefits. We need to resolve these issues soon to make sure Social Security continues to provide a foundation of protection for future generations.

"Whoa!" she said out loud. That is really sobering. She made notes to herself of the Social Security Administration's estimate of benefits for Leon and Billie taken from the statement (See Table 3).

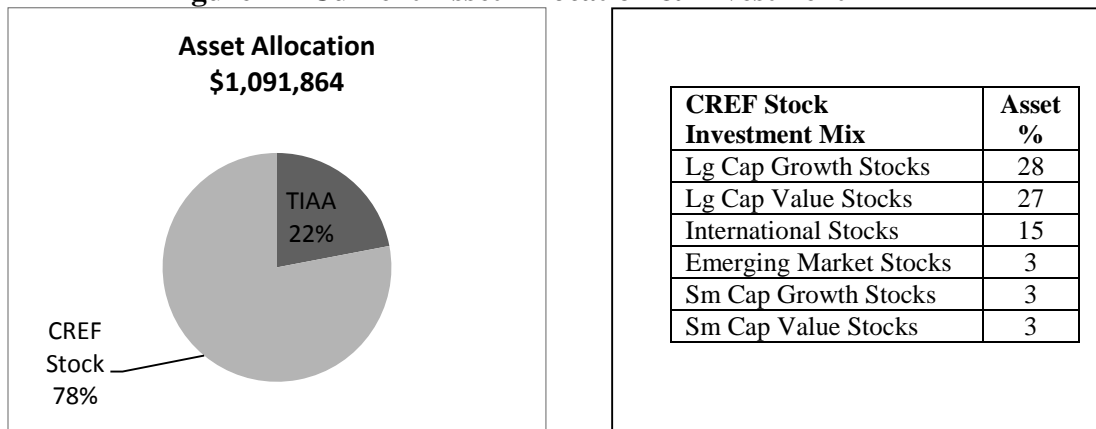
Table 3
Leon & Billie's Social Security Estimated Benefits

Assumption	Leon's monthly Estimate	Billie's monthly Estimate
Work until 66 years and 10 months	\$2,173	\$2,492
Work until 70	\$2,753	\$3,137
Stop work at 62	\$1,559	\$1,730

Retirement Asset Allocation

As Stacie turned to the next page, she saw the asset mix for the couple’s retirement accounts with TIAA-CREF (see Figure 1). Currently, Billie was making \$151,000 and Leon \$60,000 per year.

Figure 1 – Current Asset Allocation & Investment Mix



Their current employer contributed 6.5% of the couple’s salaries into TIAA-CREF. This amount had varied through the years as the couple changed jobs with one employer contributing as high as 12% with the lowest contribution at 4.8%. Through the years the couple had matched their employer contributions, but since coming to MSU the couple discontinued the match to bankroll additional money for college. Leon had been the primary caregiver while the children were young and Billie pursued a move into academic administration. Leon had given up tenure and accepted an instructor-level position to facilitate Billie’s career move. Before having children the couple made essentially the same salary as associate professors in their respective engineering fields. The children were now 17, 15 and 14 and were in the middle of their senior, junior and freshmen years of high school, respectively. Leon was 52 and Billie was 51. Stacie wasn’t sure how much insurance the couple carried, but knew the couple had a will.

Aunt Billie had attached a table showing various investment choices managed by TIAA-CREF and she had scribbled “change our allocation???” in the top margin. Currently, the couple had allocated 78% to a fully diversified CREF stock account which mixed investments of various types of stocks (as shown above). The question was, would the couple be better off choosing their own mix of stock investment categories as well as other asset classes, such as real estate.

Table 4
CREF Account Options

CREF Fund Options	Fund Objective
Stock*	A favorable long-term rate of return through capital appreciation and investment income by investing primarily in a broadly diversified portfolio of common stocks.
Global Equities	A favorable long-term total return, mainly through capital appreciation, by investments primarily in a portfolio of emerging markets equity investments.
Growth	A favorable long-term rate of return, mainly through capital appreciation, primarily from a diversified portfolio of common stocks that present the opportunity for exceptional growth.
Equity Index	A favorable long-term rate of return from a diversified portfolio selected to track the overall market for common stocks publicly traded in the United States, as represented by a broad stock market index.
Bond Market	The fund seeks as favorable a long-term total return through income as is consistent with preserving capital, primarily from investment-grade fixed income securities.
Inflation-Linked Bond	A long-term rate of return that outpaces inflation, primarily through investment in inflation-indexed bonds—fixed-income securities whose returns are designed to track a specified inflation index over the life of the bond.
Social Choice	A favorable long-term rate of return that reflects the investment performance of the financial markets while giving special consideration to certain social criteria.
Money Market	High current income consistent with maintaining liquidity and preserving capital.
Real Estate	The fund seeks favorable long-term returns primarily through rental income and appreciation of real estate and real estate-related investments owned by the Account.

*denotes Leon & Billie's current CREF Stock allocation

Stacie knew the array of different funds must be a bit daunting to the couple. Stacie pulled up the TIAA-CREF website (<http://www.tiaa-cref.org>) to review the available options (See Table 4).

She also scanned the performance of each of the funds (see Table 5). The TIAA Traditional – Retirement Fund guaranteed a rate of return was 3%, but the fixed annuity had earned 4.5% over the most recent five year period

Table 5
CREF Variable Annuity Accounts

CREF Account	Average Annual Total Returns (as of 3/31/2011)				
	1 year	3 year	5 year	10 year	Since Inception
Stock	16.31%	2.44%	2.97%	4.43%	9.90%
Global	13.48%	-0.09%	1.97%	3.77%	7.42%
Growth	16.98%	4.17%	3.75%	2.12%	6.77%
Equity Index	16.95%	3.05%	2.55%	3.73%	8.4%
Bond Mkt.	5.31%	4.64%	5.25%	5.13%	6.70%
Inflation-linked Bond	7.64%	3.37%	5.74%	6.29%	6.36%
Social Choice	11.26%	4.24%	3.96%	4.66%	8.59%
Money Mkt.	-	.55%	2.21%	2.08%	4.16%
Real Estate	12.99%	-.45%	-.34%	5.10%	6.11%

Sources: <http://www.tiaa-cref.org/public/performance/retirement/index.html>; <https://www.tiaa-cref.org/public/pdf/performance/ratesofreturn.pdf>

Added Bonus

Stacie was about to get another cup of coffee when she noticed one final item in the envelope. It was a Post-It note from Uncle Leon on top of salary figures from the couple's time at UAB. The note had an equation that read "2 and 1/8th percent x each year of service x the highest 3 of the last 10 years service." In addition to contributing to TIAA-CREF while at UAB, the couple had contributed to the Maryland State Teacher Retirement System. Leon had been in for 12 years while Billie had 17 years of service (she was able to purchase some years for her time in grad school). Uncle Leon had scribbled his estimates of this additional retirement income as follows:

$$\$88,000 \times 2.125\% \times 12 \text{ years} = \$22,000 \text{ per year for Leon}$$

$$\$89,000 \times 2.125\% \times 17 \text{ years} = \$32,000 \text{ per year for Billie}$$

Stacie thought to herself, "Wow – this is a nice bonus to their regular retirement savings!"

As Stacie poured the last cup of coffee and turned off the coffee maker she thought about Leon and Billie's situation and wondered, "What other information do I need to give them a sense if their retirement planning looks adequate? Should I recommend changes to the couple's asset allocation in their TIAA-CREF account? What is the best way to present this information to them?"