# CHOOSING DR. TAYLOR'S RETIREMENT PLAN OPTION 

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Dr. Larry Taylor has taught for more than 30 years at Southeast State University. He is contemplating retiring within a year and has begun evaluating the various retirement plan options available to determine the ideal plan for him and his wife, Amanda.


#### Abstract

A primary objective for the Taylors in selecting a retirement plan option is the desire that the spouse who lives longer would be able to maintain the same standard of living. For many weeks, Larry has grappled with several variables affecting the retirement choice including the impact on health care costs, the effect of taxes, expected social security benefits, and the uncertainty of not knowing which spouse would outlive the other.


The university's retirement system requires that a decision be made no later than 30 days prior to retirement and the deadline is approaching. The importance of the retirement plan choice makes it critical that the Taylors consider all relevant variables carefully in order to make a well-informed and wise decision. Which plan is best for them?

## PRELIMINARY CONSIDERATIONS

It was a pretty Friday afternoon in November and Dr. Larry Taylor had just returned from teaching his last class of the week. Both students and faculty were beginning to leave for the weekend. He put his feet on the desk, stared out the window, and began to think about retirement.

Dr. Taylor was sensitive about his age and had difficulty believing he was past 60 . His university teaching career, which began at age 22 , had been quite rewarding. He didn't really want to retire yet, but the calendar didn't lie. After spending two full years and several summers to obtain a doctorate, he was now in his $35^{\text {th }}$ year at

Southeast State University. In addition, at the start of his career, he had taught three years at a mid-size university in Ohio and would soon have more than 1.5 years of accumulated sick leave. The maximum number of years allowed for retirement pay calculation was forty years. As one of his former colleagues who retired two years earlier kept reminding him, "If you stay much longer, you'll be working for nothing."

The state retirement system provided excellent benefits and was in sound financial condition. On the surface, the amount of expected retirement pay seemed simple enough to determine. Retirees received a monthly benefit equal to (two percent) * (number of years of service credit) * (base monthly salary). "Base monthly salary" was defined as the average pay of the highest consecutive 24 months. Dr. Taylor's time in Ohio could be purchased for service credit. Retirees could continue their high-quality group health insurance coverage, with the state university system paying 70 percent of the premiums. In view of continued large increases in health care costs, this percentage could certainly change in the future. In fact, when Dr. Taylor began his career at Southeast, the university system paid 100 percent of the health insurance premiums.

Being retired would have some positive financial ramifications, as compared to continuing to work. Social Security ( 6.20 percent of the first $\$ 106,800$ of gross income) and Medicare ( 1.45 percent of total gross income) taxes would not be deducted from retirement pay. Also, obviously, employee retirement deductions at a current rate of five percent (the employer also contributed nine percent) would not be subtracted from retirement pay. However, both federal and state income taxes would continue to be deducted. For the past few years, the marginal federal and state tax rates for the Taylor household were 25 percent and 6 percent, respectively. During the previous calendar year, the Taylors paid $12.9 \%$ of their gross income in federal taxes, and $5.3 \%$ in state taxes.

A few weeks later, Dr. Taylor attended a teacher's retirement seminar held on campus and obtained a Retirement Handbook and a Member's Guide. These documents, totaling more than 70 pages, explained all aspects of retirement and included several pages of application forms. The paperwork itself, which required identification documents, selection of beneficiaries, and tax withholding decisions, was not a particularly daunting task. The application process provided an opportunity to ensure that beneficiaries on all financial accounts were correct and consistent, and to update wills that needed to be changed. Also during this time, Dr. Taylor ascertained the cost of buying service credit for the three years in Ohio. Since the price was very reasonable compared to the future financial benefits, he withdrew
money from savings to make this purchase.
It was expected that decisions concerning retirement would take time and emotional energy. However, the amount of time needed for analysis of one particular issue would apparently take much more time than anticipated. The issue was: Which retirement plan option should be chosen? The " 2 percent per year plan" most often referenced in hall talk and mentioned above was actually only one of eight primary options, $\mathrm{A}-\mathrm{H}$. The very important choice of a retirement plan option was surprisingly complex. Once an option was chosen, it was irrevocable during the remainder of a retiree's life except in extremely limited cases.

## RETIREMENT PLAN OPTIONS

Figuratively and literally, Larry Taylor did lots of head scratching over the next few months as he read and analyzed the various retirement plan options and discussed them with his wife, Amanda. Larry and Amanda had an excellent marital relationship and they wanted to make a decision that was good for both of them. They agreed on the desire that the spouse who lived longer should be able to maintain the same standard of living that existed when both of them were alive.
The various available retirement plan options are described below. For simplicity, in each of the options, it is assumed that Amanda is Larry's only designated beneficiary.

Option A: This option, also known as the Maximum Plan, would produce the largest possible monthly benefit for Larry during his lifetime. The monthly benefit would be:
$(2 \%) *($ number of years of service $) *$ (base monthly salary). (Formula 1)
At Larry's death, all benefits would stop. However, at the time of his death, any remaining undistributed employee retirement contributions plus interest on those contributions (but not any of the amounts contributed by the employer) would be refunded to the designated beneficiary. In most cases, these funds are exhausted within $10-14$ years after retirement.

Option B: This option offers a reduced monthly lifetime benefit for Larry, as compared to Option A, based on the ages of Larry and Amanda, at the time of Larry's retirement. However, this option guarantees that at Larry's death, if Amanda is still living, she will continue to receive the same monthly benefit that Larry received during his lifetime, plus applicable cost-of-living increases. In other words, Option B provides the same monthly benefit for both of their lifetimes, whereas Option A
provides a monthly benefit only during Larry's lifetime.
Option C: Like Option B, this option offers a reduced monthly lifetime benefit for Larry, as compared to Option A, based on the ages of Larry and Amanda, at the time of Larry's retirement. This option guarantees that at Larry's death, if Amanda is still living, she will receive a lifetime monthly benefit equal to one-half of the monthly benefit that Larry received during his lifetime.

Options D-H: These options are similar to Option C except that if Amanda survives Larry, her lifetime monthly benefit can be set at various levels, as compared to the benefit received during Larry's lifetime. Instead of a 50 percent benefit, percentages of $55,60,65,70$, and 75 can be chosen. For reference purposes, plans with these various percentages are designated as Options D (55\%), E (60\%), F (65\%), G (70\%), and H (75\%). Obviously, as the percentage of monthly benefit for Amanda after Larry's death increases, the monthly benefit during Larry's lifetime decreases.

## NINE MONTHS LATER

It was now August of the following year and Dr. Taylor had crossed the psychological threshold of deciding that he would definitely retire and had set a retirement date. He would have the maximum allowable number of years of service (40) by the end of December but he would retire at the end of the fiscal year, June 30 of the next year, instead. He wanted to give sufficient notice to the dean to allow Southeast State University time to find a replacement. Although the dean understood Dr. Taylor's decision to retire, he was surprised and accepted his planned retirement reluctantly. During September, Dr. Taylor also had a 45-minute meeting with Joyce Harper in the Human Resources Department. Joyce gave him copies of all the latest retirement application forms, which had changed since last year, and explained the logistics of the retirement process. He learned that if no further sick leave was used, he would have 1.78 years of accrued sick leave by the date of retirement. In October, Dr. Taylor submitted an official letter to the Provost and the President stating his intentions to retire on June 30 of the following year.

Now it was time for Larry to "sharpen his pencil" and begin calculating projected retirement incomes for the various options. He would also estimate income needs for Amanda and him during the years ahead. With a background in quantitative methods and statistics, Larry was very analytical and numbers-oriented. Amanda understood numbers to a certain extent, but admitted that mathematical ability was not her strong suit. As his work schedule permitted, Larry got all relevant numerical information together so he could present and explain the data to Amanda. Undoubtedly, they would need several weeks to digest and analyze all
the information before making a final decision about which retirement option to choose.

## FINANCIAL STATUS OF THE TAYLORS

The Taylors had been very blessed financially and lived comfortably. In his role as both a professor and an administrator, Dr. Taylor was on a 12-month contract from July 1 - June 30 each fiscal year. His salary was $\$ 110,150$ for the upcoming 12 months and $\$ 109,850$ for the previous 12 months. These were his two highest annual pay periods. The Taylors' income placed them in the 25 percent marginal federal income tax bracket, which is applicable for taxable incomes between $\$ 65,100$ and $\$ 131,450$. His wife, Amanda, had retired from teaching middle school five years earlier. Their house was fully paid for and in fact, they were totally debt-free. They were frugal in virtually all areas, except they took two-week European or U.S. vacations each year. All four of their children became mostly self-supporting 10 years earlier. Since that time, the Taylors had been able to add $\$ 1,000$ per month to a tax-sheltered retirement savings plan (TIAA/CREF), as well as purchase certificates of deposit and invest in mutual funds from time to time. The reduction from gross pay for TIAA/CREF was less than $\$ 1,000$ per month since it was paid with pre-tax dollars. For the foreseeable future after Dr. Taylor's retirement, the Taylors would like to continue to save $\$ 1,000$ per month, but these contributions to savings would come from after-tax dollars. At the time of Dr. Taylor's retirement, the Taylors were projected to have $\$ 117,000$ in CDs, mutual funds valued at $\$ 32,000$, and TIAA/CREF funds of $\$ 158,000$. The TIAA/CREF funds were split $50 / 50$ between CDs and the stock market. The value of the mutual funds and stocks, of course, was subject to the fluctuations of the stock market.

At the time of his scheduled retirement, Dr. Taylor would be 63 and his wife would be 64. Amada was in excellent health and Larry considered himself to be in very good health. Although he was diagnosed with leukemia two years ago, he was currently in remission. His oncologist explained that it could be up to 15 years before the cancer reappeared. Their medical insurance coverage, which would continue after Larry's retirement, was excellent. The employee/retiree co-payment was $\$ 20$ for a doctor's office visit and $\$ 25$ for a prescription. After meeting a $\$ 600$ deductible, insurance paid for $90 \%$ of all physician, hospital, and lab services. During the previous 12 months, non-reimbursed medical expenses were $\$ 5,000$ for the year and health insurance premiums were $\$ 249$ per month. While Larry was employed, these costs were paid with pre-tax dollars, but would be paid with posttax dollars after his retirement.

Amanda elected to begin receiving reduced Social Security benefits at age 62, the
earliest allowable age. Since her school system participated in Social Security for only a few years while she was employed, her monthly benefit was only \$245. Larry did not plan to request Social Security benefits until he could do so without penalty, at age 66. At that time, his benefits were projected to be $\$ 2,206$ per month. Amanda also received a monthly teacher's retirement benefit of $\$ 1,781$.

## RETIREMENT OPTION PERCENTAGE FACTORS

The Retirement Handbook published by the state teachers' retirement system included tables of percentage factors for each option relative to Option A. For example, if a retiree chose Option A, his percentage factor would be listed as 1.000. In the case of Larry, based on Formula 1 above, his monthly retirement benefit would be [(1.000)*2\%*40 years of service * monthly base salary.] Thus, Larry's monthly retirement benefit would be $80 \%$ of the salary he was making while working. As another example, suppose a retiree had 35 years of service and a percentage factor of .789 . Then his monthly retirement pay would be (.789) * $(.02) * 35=.552(55.2 \%)$ of his salary while working. The tables in the retirement handbook included many percentages based on various ages of the retiree and the beneficiary. In the information below, for purposes of simplicity, only the percentages for Larry's age (63) and Amanda's age (64) are stated.

Option A: 1.000
Option B: 0.874
Option C: 0.937
Option D: 0.930

Option E: 0.923
Option F: 0.917
Option G: 0.911
Option H: 0.904

## DECISION TIME

The Christmas tree had been taken down and a new year was underway. The Teachers' Retirement System required that retirement applications be finalized no sooner than 180 days, and no later than 30 days, prior to the retirement date. Larry had set February 15 as a self-imposed deadline to finish the retirement application process. Larry and Amanda now knew all that could be reasonably known about family finances, in terms of actual and forecasted income and expenses. They had discussed at length, on several different occasions, all the information that had been collected. Both of them understood all the facts and the financial implications of each of the retirement plan options.
"Why does life always seem to be so complicated? " Larry sighed to Amanda. But before Amanda had a chance to answer, Larry, feeling a little guilty, added: "I suppose we should just thank God that we have very good options from which to choose."

Note: This case is based entirely on true incidents that happened as described. However, names, places, and institutions have been changed to preserve anonymity. Some numbers have been rounded and some definitions have been simplified, but these minor changes have no effect on the essence of the case.

