Bailey Nixon and Alexandria Rodriguez

Writing Assignment #3

Dr. Tom Wears

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Dear Friend,

After discussing your current financial situation and future plans, I wanted to give some suggestions about future investments and additional payments that will affect your retirement plan. I know that there is a benefit for working for your company and they will match 3.75% of your $40,000 annual salary in investments for retirement. However, it is important to discuss how your money will be affected through student loans, mortgages, and investments made over time.

From your financial plans, you discussed how you would like to retire by the age of 64 and be able to withdraw $11,500 each month from the ages of 64 to 89. In order to be able to take this amount of money out of your account each month, your monthly investments will have to increase every ten years. From the ages of 22 to 32 you will make a personal investment of $250 per month and your employer will match your investment up to $125 a month. This will create a total investment of $375 a month for ten years at the rate of 6.85% compounded monthly. With these conditions, your account will be worth $64,373.77 at the age of 32 (Future Value of Annuity). However, this money will continue to grow with compound interest from the ages of 32 to 64 at the same rate, giving you a total of $572,763.91 at the age of 64 (Compound Interest). After ten years of working and receiving raises, you now will make a personal investment of $325 per month and your employer will match your investment up to $163 a month. This will create a total investment of $488 a month for ten years at the rate of 6.85% compounded monthly. With these new conditions, your account will be worth $83,771.73 at the age of 42 (Future Value of Annuity). However, this money will continue to grow with compound interest from the ages of 42 to 64 at the same rate, giving you a total of $376,459.58 at the age of 64 (Compound Interest). After an additional tens years of working and you continuing to receive raises, you will now make a personal investment of $425 per month and your employer will match your investment up to $225 a month. This will create a total investment of $650 a month for ten years at the rate of 6.85% compounded monthly. With these conditions, your account will be worth $111,581.20 at the age of 52 (Future Value of Annuity). However, this money will continue to grow with compound interest from the ages of 52 to 64 at the same rate, giving you a total of $253,259.67 at the age of 64 (Compound Interest). At the age of 52 with additional raises, you will now make a personal investment of $550 per month and your employer will match your investment up to $300 a month. This will create a total investment of $850 a month for ten years at the rate of 6.85% compounded monthly. With these conditions, your account will be worth $189,069.92 at the age of 64 (Future Value of Annuity). At the age of 64, from the overall investments made from each of the four payment streams, the total amount in the account from personal investments, employer investments, and compound interest will be worth $1,391,553.08. It is important to note how the investments made earlier in your life, for example 22 to 32, may have been lower monthly payments, but earned the most compound interest and were worth the most from the extended amount of time in the account until the age of 64. Even with these investments, this amount will not provide you will the complete amount of retirement funds needed at the age of 64. You must also make additionally investments from students loans and mortgage payments, which we will discuss further.

You must take into consideration your student loans of $30,000 that you will pay off from the ages of 22 to 37. In order to pay off your student loans, you will make monthly payments of $245.13 at the rate of 5.5% compounded monthly for 15 years (Present of Annuity). While your loans will be paid off at the age of 37, you should consider investing the $245.13 that you would have been using to make monthly payments towards student loans. If you were to invest the extra $245.13 a month from the ages of 37 to 64 after completely paying off student loans, you would be able to add more funds to your retirement plans. If you were to invest $245.13 a month, each month, for 27 years at the rate of 6.85% compounded monthly, this payment stream in your account would be worth $228,595.71 at the age of 64 (Future Value of Annuity). With the monthly investments from your personal investments, your employer’s investments, and your extra money that would be previously paying off student loans, your total amount of the retirement account at the age of 64 would be worth $1,620,148.79.

Additionally, it is known that at the age of 27, you would like to take out a 25 mortgage for a house that costs $225,000 at the rate of 6.5% compounded monthly. With these terms you would be paying $1,519.22 (Present Value of Annuity). While your mortgage will be paid off at the age of 52, you should consider investing the extra $1,519.22 that you would have been using to make monthly payments towards the mortgage. If you were to invest $1,519.22 a month from the ages of 52 to 64 after completely paying off the mortgage, you would be able to add more funds to your retirement plans. If you were to invest $1,519.22 a month, each month, for 12 years at the rate of 6.85% compounded monthly, this payment stream in the account would be worth $337,928.01 at the age of 64 (Future Value of Annuity). With the monthly investments from your personal investments, your employer’s investments, the extra money that would be previously paying off student loans and the mortgage, your total amount of the retirement account at the age of 64 would be worth $1,958,076.80.

At the age of 64, if you have transferred all of the money that has been invested from the ages of 22 to 64 into a account earning 5.0% monthly compound interest, your account would need to be worth $1,958,076.80 (Present Value of Annuity). This would allow you to be able to withdraw monthly amounts of $11,500 from the ages of 64 to 89.

We hope you take these suggestions into consideration,

Bailey Nixon and Alex Rodriguez