April is the official National Financial Literacy Month. One of the important building blocks of financial literacy is understating compound interest and its impact on you.

Albert Einstein is alleged to have said, “Compound interest is the eighth wonder of the world. He who understands it, earns it ... he who doesn’t ... pays it.” Compound interest is interest added to the principal of a deposit or loan so that the added interest also earns interest from then on. This addition of interest to the principal is called compounding.

When you are investing for retirement in your Thrift Saving Account (TSP) or saving money for some other purpose, compounding is your best friend. Compounding accelerates the growth of your TSP accounts.

The example of Tom and Sue shows the dramatic effect compounding can have on your retirement savings. Sue invests $5,000 per year only from ages 25 to 35 (10 years). Tom also invests $5,000 per year, but from ages 35 to 65 (30 years). Both Tom and Sue earned 7% per year on their investments.

Even though Tom invests three times as much as Sue ($150,000 vs. $50,000) and Sue did not invest any more money in her TSP account after age 35, Sue has a bigger TSP account at age 65 than Tom. Of course, Sue would have been even much more ahead of Tom if she had continued to contribute to her TSP account. This example shows the importance of starting your retirement savings early in your career and the impact of compounding. Earnings on your savings compound over and over and over again throughout your career.
When you’re saving money compounding is your best friend, but when you owe money compounding becomes your biggest foe. The same “magic” principle that makes your savings grow faster and faster, turns against you and can make your debts grow bigger and bigger.

Anybody with a credit card balance knows that making only the minimum payment takes a lot of your money but gets you nowhere. Most credit cards give you a grace period of about a month to pay the current balance without interest being charged. If you pay only the “minimum payment due” or any amount less that the full remaining balance, the credit card company will begin computing compound interest on the remaining balance daily.

If you had a $5,000 balance on a card with an 18.9% interest rate and your minimum payment was $200 each month, it would take you 11 years and five months to pay the entire balance—and that’s only if you don’t change anything else on the credit card. It’s important to read the fine print on your credit card agreement to learn exactly how the interest is calculated your credit cards.

Compound interest—friend or foe. Help yourself achieve a secure retirement by keeping it your friend.

*Dr. Kirk is a former Federal employee with over 40 years of Federal Service, 34 of which were spent with the Office of Personnel Management. He was the manager of the Benefit Officers’ Training and Development in Retirement Services for the last 12 years of his career.*