

# Investment value

[Science](#), [Mathematics](#)



Education is still valued by a number of people in this country. Despite the financial crisis, parents still save up for their children's education by investing in their children's college funds. There are a number of ways to invest one's money and that includes stock trading, mutual funds, cash bonds, and time deposits, among others.

For the problem at hand, Grandma has \$50, 000 to invest for Kid's college education. After some careful planning, she decided to invest her money in a Saving Bond which offers a fixed annual interest rate of . 60%, compounded semi-annually, and will mature after 20 years, the same time at which Kid will be going to college (Series EE Savings Bonds Info, 2011). By computing the value of Grandma's investment after 20 years, this will result in the following:

$$F(t) = P(1 + r/n)^{nt}$$

where F = future value of Grandma's investment

P = Grandma's principal investment = \$50, 000

r = . 60%

n = semi-annual = 2

t = time of maturity = 20 years

$$F(20) = 50000(1 + . 006/2)^{(2*20)}$$

$$F(20) = \$56, 364. 72$$

Therefore, after 20 years, Grandma's investment will amount to \$56, 364.

72. According to CNN Money (2011), the current annual cost for an education at California Christian College is \$12, 460. This includes tuition, other fees, room and board. If we multiply this amount by four years, which is the regular length for a college education, the total cost of a college education

would be \$49, 840. This means that if Grandma was to send Kid to college now, her \$50, 000 would just be barely enough to cover Kid's college education.

In the next 20 years, inflation would set in and would most likely increase the cost of education. As long as annual cost of education in 20 years does not go beyond \$14, 091, then Grandma's investment will be enough to cover Kid's education.

#### References:

College costs: Find out how much college costs. (2011). Retrieved December 9, 2011, from CNN Money: <http://cgi.money.cnn.com/tools/collegecost/collegecost.html>

Series EE Savings Bonds Info. (2011). Retrieved December 8, 2011, from SavingsBonds.com: [http://www.savingsbonds.com/bond\\_basics/ee-savings-bonds.cfm](http://www.savingsbonds.com/bond_basics/ee-savings-bonds.cfm)