The life insurance calculator

How much life insurance do you need?

Life insurance is an important financial tool that can provide financial security to your loved ones in the event of an untimely death. It helps to ensure that your family members can continue to pay their bills, maintain their standard of living, and achieve their financial goals even if you or your partner are no longer there to provide for them. But how much life insurance should you own to protect your family? This life insurance calculator will help guide you.

To determine how much life insurance you need, consider your current financial situation, future financial obligations, and your family's needs. Here are some steps to help you calculate how much life insurance you should own:

1. Determine your current expenses: Start by calculating your current monthly expenses, including your mortgage or rent, utilities, food, transportation, and other bills. This would give you an idea of how much money your family would need to cover these expenses if you were no longer there.

   Put this number in Box A

2. Estimate your future financial obligations: Consider your future financial obligations, such as your children's education expenses, future medical bills, and other large expenses your family may incur. These expenses may vary depending on your family's lifestyle and goals.

   Put this number in Box B

3. Calculate your family's future income needs: Your family will need a steady stream of income to cover their ongoing expenses and maintain their standard of living. Calculate how much income your family would need each year to cover their ongoing expenses. You can calculate that number by taking your annual expenses multiplied by 33 and adding your known future obligations to that. See footnote on next page.

4. Subtract your existing assets: Subtract your existing assets, such as savings, investments, and retirement accounts (typically adjusted for taxes), from your estimated future financial obligations and your family's future income needs. The resulting amount will estimate how much life insurance you need to provide for your family.

   Put the sum of your savings in Box C

5. Add any debt you would like to extinguish in the event of an untimely death. (If you are extinguishing a debt that was creating a monthly expense, be sure not to leave it off step 1.)

   Put the sum of the debt you would like to extinguish in Box D

Box	Item	Outcome
A	Monthly Expenses	
Multiply A by 12	Annual Expenses	
B	Future Expenses	
((A*12)*33)+B	Sub-total	
C	Liquid Savings	
D	Debt to Extinguish	
((A*12)*33)+B-C+D	Insurance Needed	

It's important to remember that the amount of life insurance you need may change over time, depending on changes in your financial situation and your family's needs. It's a good idea to review your life insurance coverage regularly to ensure that it continues to meet your family's needs. Finally, if there's a risk that your estate will approach the exemption limit, it may make sense to consider moving your life insurance into an irrevocable life insurance trust ("ILIT").

In conclusion, life insurance is an important tool that can help to protect your family's financial future. By following these steps, you can calculate how much life insurance you need to provide for your family's needs and achieve peace of mind knowing that your loved ones are financially protected.

Footnote: Monte Carlo simulation is a statistical technique used to model and simulate real-world scenarios based on a set of assumptions and probability distributions. In finance, Monte Carlo simulation can be used to model the behavior of investment portfolios and determine the likelihood of achieving specific financial goals based on historical market data.

The 4% rule is a popular rule of thumb that suggests that retirees can withdraw 4% of their initial retirement portfolio balance each year and adjust this amount for inflation to provide a sustainable income stream that will last for 30 years. Monte Carlo simulation was used to test the validity of this rule for an individual based on their specific circumstances. To do this, the simulation took into account the individual's current savings, expected future contributions, expected returns, and expected inflation rates, among other factors. The simulation would then run multiple iterations, each with slightly different assumptions and probability distributions, to determine the likelihood of the individual achieving their desired income stream for a given period.

For example, the simulation may show that the individual has a 90% chance of achieving their desired income stream for 30 years, but only a 50% chance of achieving the same income stream for 40 years. This information can be useful in helping the individual make decisions about how much to withdraw each year and how to adjust their savings strategy to improve their chances of achieving their financial goals. Accordingly, we use the 3% rule which suggests with acceptable probability that funds in a well diversified (70/30) portfolio will outlast a person's life expectancy, even if it's greater than 30 years.

In summary, Monte Carlo simulation is a powerful tool for modeling and simulating real-world scenarios in finance. It can be used to determine the likelihood of achieving specific financial goals, such as generating a sustainable income stream in retirement based on the 4% rule, and can provide valuable insights that can help individuals make informed decisions about their finances.