

LIFE INSURANCE CASE STUDY

Husband Joe: Age 45
Wife Ruth: Age 44
Two children: Ages 10 and 7

Joe & Ruth have a home mortgage of \$192,000 (principal and interest payment of \$1200/month), a car loan of \$12,000 and credit cards debt of \$4000.

Joe makes \$70,000; Ruth works part-time earning \$15,000. Ruth also provides services to the family that would need to be replaced (child care, home maintenance, etc.)

Joe's current 401k is \$105,000. They own property, a building lot valued at \$60,000. They have two cars valued at \$12,000 each. They currently have saved \$11,000 for their children's college savings.

Example A HUSBAND'S ESTIMATED LIFE INSURANCE NEED

Let's begin with Joe, the husband.

First Step– We want to determine how much is needed to pay off Joe and Ruth's debt. The mortgage is \$192,000, plus they have a \$12,000 car loan and \$4,000 in credit card debt. This equals a total debt of \$208,000.

Second Step– We want to account for the benefit of paying off the debt. Since the home mortgage will be paid off, this means there is less money needed each month to maintain the same lifestyle. The \$1,200 per month mortgage payment equates to \$14,400 in income so we no longer need to replace all of Joe's salary. Now we only need to replace \$55,600 of income. Joe would also like to account for the fact that his children would be eligible for Social Security benefits of \$600 per month until they reach age 18. This drops the income replacement need down to \$48,400. Joe believes it is reasonable to earn a 4% rate of return on the life insurance proceeds and wants to make sure the money lasts at least 15 years – until the children are out of the house. The amount of money needed to provide \$48,400 per year at a 4% earnings rate for 15 years is estimated to be \$545,000. We have not accounted for the difference in taxes (lower) or the cost of health insurance (higher) in this example.

Third Step– Joe wants to be certain that 75% of his children's college expenses are covered. Joe and Ruth estimate the average cost for a state college at \$20,000. He wants to fund 4 years at 75% of the cost. This amounts to \$60,000 for each child (75% X \$20,000 X 4 years). The total for two children is \$120,000 to meet this goal.

Fourth Step– Joe does not want to count his 401k as current wealth because he would like Ruth to have this set aside for her retirement. However, he believes the building lot should be sold (\$60,000), if he passes away. Also, the second car would be sold (\$12,000). They currently have \$11,000 in the children’s college savings account. This provides a total net worth of \$83,000.

Fifth Step– The Debt Payoff is \$208,000 + Income Replacement Need \$545,000 + Future Financial Goals \$120,000 - Current Net Worth \$83,000 = Joe’s Life Insurance Need \$790,000.

WORKING IT OUT

STEP 2

INCOME REPLACEMENT

Husband’s Income	\$ 70,000
Monthly Mortgage Payment	
\$1,200 x 12 months =	<u>– 14,400</u>
Income Replacement	55,600
Kid’s Social Security Benefit	
\$300 x 2 = \$600 x 12 months =	<u>– 7,200</u>
YEARLY INCOME REPLACEMENT	48,400
TOTAL INCOME REPLACEMENT	\$545,000

Estimated 4% Earning Rate for 15 years
(Total does not include for taxes or health insurance cost)

STEP 3

FINANCIAL GOALS

College Expense per Child \$20,000 x 75% = \$15,000	
\$15,000 per year x 4 years = \$60,000 x 2 Children = \$120,000	
TOTAL FINANCIAL GOALS	\$120,000

STEP 4

NET WORTH

Sellable Assets	
Additional Property	\$ 60,000
Car 1	<u>12,000</u>
Total Sellable Assets	72,000
Current College Savings	<u>+ 11,000</u>
TOTAL NET WORTH	\$83,000

STEP 5

Debt Pay Off	\$ 208,000
Income Replacement	545,000
Financial Goals	<u>+ 120,000</u>
	873,000
Net Worth	<u>– 83,000</u>
HUSBAND’S TOTAL INSURANCE NEED	\$790,000

Example B WIFE'S ESTIMATED LIFE INSURANCE NEED

Now let's look at Ruth, the wife (Example B):

First Step – Debt pay off \$208,000.

Second Step– Ruth's yearly income is \$15,000. Ruth and Joe estimate the replacement value of Ruth's services to the family would cost approximately \$30,000 per year, equaling \$45,000 income per year, minus the yearly \$14,400 mortgage payment, equals a total income of \$30,600 per year. Ruth and Joe want this money available for the next 7 years, until their youngest child is age 14. So in order to provide \$30,600 for 7 years with a 4% return they would require a replacement income of \$186,000.

Third Step– Ruth also wants to be certain that 75% of their children's college expenses are covered. \$120,000 is needed for this goal.

Fourth Step– Ruth does not want to count Joe's 401k as current wealth because she wants Joe to have this set aside for his retirement. However she believes the building lot should be sold (\$60,000) along with the second car (\$12,000). They have \$11,000 in the children's college savings account. This provides a net worth of \$83,000.

Fifth Step– Debt Payoff is \$208,000 + Income Replacement Need \$186,000 + Future Financial Goals \$120,000 - Current Net Worth \$83,000 = Ruth's Life Insurance Need \$431,000.

WORKING IT OUT

STEP 2

INCOME REPLACEMENT

Wife's Income	\$ 15,000
Wife's Home Replacement Value	<u>+ 30,000</u>
Income Replacement	45,000

Monthly Mortgage Payment	
\$1,200 x 12 months =	<u>- 14,400</u>
YEARLY INCOME REPLACEMENT	30,600
TOTAL INCOME REPLACEMENT	\$ 186,000

Estimated 4% Earning Rate for 7 years
(Total does not include for taxes or health insurance cost)

STEP 3

FINANCIAL GOALS

College Expense per Child \$20,000 x 75% = \$15,000	
\$15,000 per year x 4 years = \$60,000 x 2 Children = \$120,000	
TOTAL FINANCIAL GOALS	\$120,000

STEP 4**NET WORTH**

Sellable Assets	
Additional Property	\$ 60,000
Car 1	<u>12,000</u>
Total Sellable Assets	72,000
Current College Savings	<u>+ 11,000</u>
TOTAL NET WORTH	\$83,000

STEP 5

Debt Pay Off	\$ 208,000
Income Replacement	186,000
Financial Goals	<u>+ 120,000</u>
	514,000
Net Worth	<u>- 83,000</u>

WIFE'S TOTAL INSURANCE NEED \$431,000