

Your Life's Worth

If you have children, you need life insurance. But how much is enough? And how much is too much?

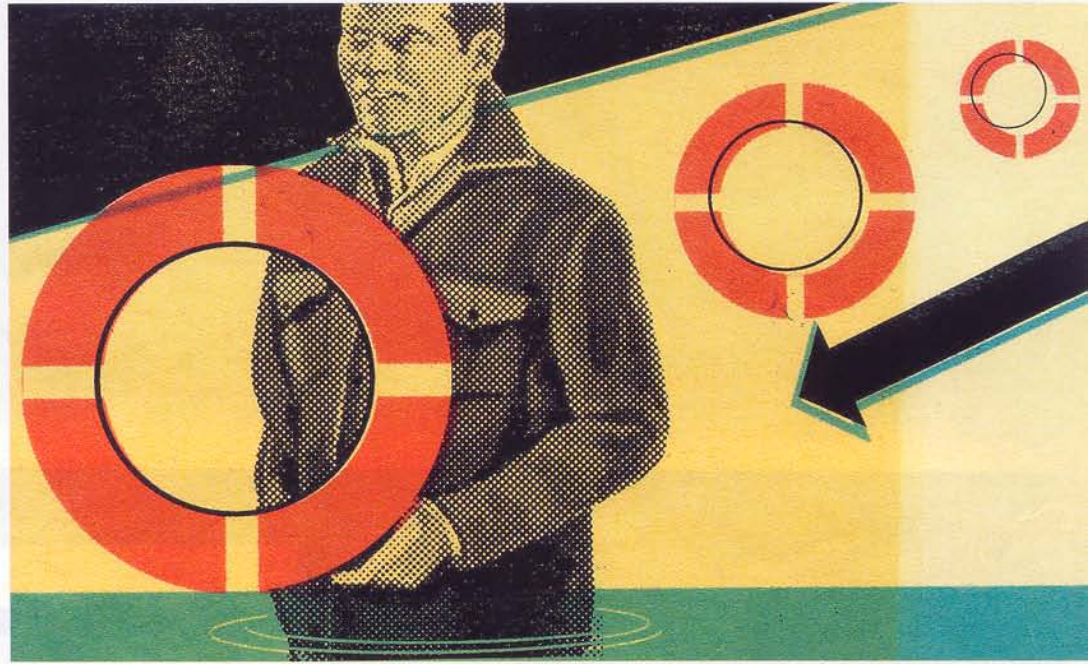
By Moshe Arye Milevsky

I recently saw a life-insurance advertisement in which a father is seen doting on his cute young son, with the tagline, "Your need for life insurance is growing." I agree that a growing family creates a demand for more life insurance. But as your children age, your demand for life insurance should decline, not increase.

For those of you who are puzzled, here is a quick review of how much life insurance you need, and why, as your kids age, you need less.

First, some basics. Life insurance is not a consolation prize for the survivors. It is a risk-management instrument just like your home, car and medical insurance. You must ensure you have enough, but you shouldn't buy more than you need, since the premiums could be better spent or invested elsewhere. Second, and more importantly, life insurance requirements are not a science but an art. There's no mathematical formula that will determine how much you need.

Some commentators advocate an insurance approach that is based solely on your salary or annual income — for example, coverage should be five or perhaps 10 times salary — but I think it's the wrong way to go about it. A comprehensive study conducted by Prof. Laurence Kotlikoff and some colleagues at Boston University indicated that although Americans on average have sufficient life insurance, there is a "startling mismatch between



insurance holdings and underlying vulnerabilities. For many of those with the greatest vulnerabilities, the amounts purchased are surprisingly small, and for many of those with the smallest vulnerabilities, the amounts purchased are surprisingly large." It seems the older and richer are buying too much, while the relatively young and poor are not buying enough.

Therefore, I believe it is more appropriate to model insurance needs in terms of your dependents' financial vulnerabilities (DFV).

From a purely economic point of view, you are a (human) capital asset that produces large annual dividends (wages and salary), which fund your personal lifestyle as well as the liabilities generated by your dependent family. While there'd be no need to maintain your personal lifestyle in the event of your demise, the liabilities generated by your dependents would continue to require funding. Life insurance is designed to cover this "gap" in funding.

The present value of your dependents' financial vulnerability — the amount of life insurance you should prudently have — depends on two things: the magnitude and the time horizon of the exposure.

Say, for example, you have three daughters

under the age of six whom you want to support for the next 20 years. You estimate that their combined annual maintenance costs are an average real (after-inflation) \$75,000. In that case, the table below says that you require \$1 million in life insurance. In five years, the liability horizon will decline to 15 years, and you'd only need \$850,000 of life insurance. In 10 years, the liability drops to \$615,000.

The lesson: Make sure to buy life insurance in relatively short-term bundles, so you can scale down (or up) as needed over time.

The finance theory underlying these calculations is that in the event of your demise, the (tax-free) insurance payout should be enough to purchase a period-certain annuity (which pays out over a set number of years) to fund future liabilities. Once your dependents' financial vulnerabilities have ended (i.e., they've grown up) there's no need for life insurance.

Bill Gates shouldn't buy life insurance, even though with an annual income that exceeds the GNP of a small country, he could easily afford it. The key is liabilities. So take some time to measure the financial vulnerability of your dependents. Then make sure you have enough life insurance — and no more. **E**

TAKING CARE The amount of insurance you need depends on how long your children will require support

Number of years of support at	\$10,000 annually	\$50,000 annually	\$75,000 annually
5 years	\$44,833	\$224,163	\$336,245
10 years	\$82,128	\$410,639	\$615,959
15 years	\$113,153	\$565,765	\$848,647
20 years	\$138,962	\$694,810	\$1,042,215
25 years	\$160,432	\$802,160	\$1,203,240

Assumptions: 3.75% after-inflation after-tax discount rate; annual support in real dollars