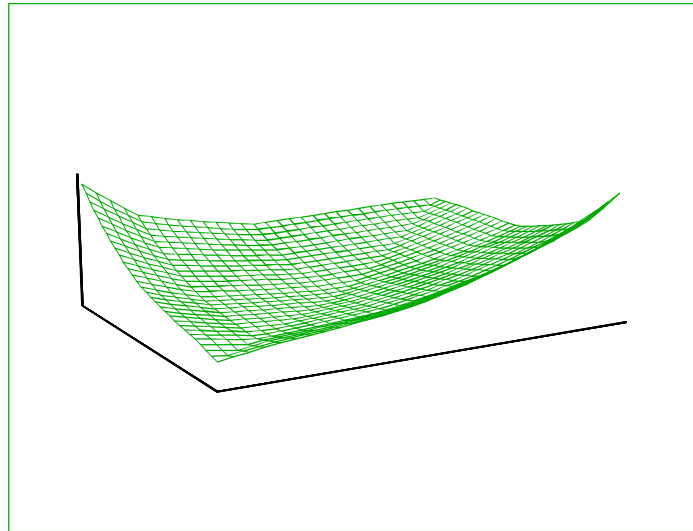


LIFE INSURANCE SENSE AND NONSENSE

for people who don't mind a little complexity

by Glenn S. Daily



GLENN S. DAILY

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fee-only insurance consulting

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Printed in the United States of America

Portions of this publication have appeared in *The CPA Journal*.

Additional copies may be ordered for US\$10.00 each. Discounts are available for bulk orders and Internet distribution.

ISBN 1-882153-00-6

TABLE OF CONTENTS

Introduction	1
The Uses of Life Insurance	2
The Types of Life Insurance	3
Is Life Insurance Magic?	10
How to Shop for Life Insurance	23
Endnotes	37
Life Insurance Adviser Disclosure Form	
About the Author	

INTRODUCTION

Before listening to the Sirens' song, Homer's Ulysses took the sensible precaution of having himself tied to a mast. It's a pity today's consumers can't do the same before listening to the hype of life insurance sales pitches; sturdy masts might prevent people from buying policies they should avoid and dumping policies they should keep.

Fortunately, sturdy information can do the same thing, and it won't get your clothes dirty. This brief discussion of a complicated subject will help you listen to the Sirens of the marketplace without losing your head (and your money).

The first section describes the common uses of life insurance in three broad areas: protection, financing, and investment. We won't dawdle here.

The second section tours the main types of life insurance available today, with emphasis on cash value products. If you understand how your bank checking account works, you'll have no trouble with this.

The third section takes a hard-nosed look at what salesmen call the magic of life insurance. This includes new and existing policies as well as the merits of second-to-die versus single-life coverage. There's a lot to slog through, but it does end eventually.

The fourth section offers practical guidance on how to shop for life insurance. In particular, it explains several ways to transfer money from the salesman's pocket to yours. That's your reward for spending time reading about life insurance when there are so many more exciting things to do.

THE USES OF LIFE INSURANCE

You can construct many lists of uses, but three broad categories cover the territory:

- **Protection.** Replacing lost income caused by a breadwinner's premature death is an obvious use. In fact, life insurance is the only financial instrument that can guarantee to pay a multiple of the original investment whenever death occurs. Key-man insurance fulfills a similar protection role in the business arena; it indemnifies the firm against losses caused by the death of an active owner or executive.

- **Financing.** Life insurance can be used as a funding vehicle for obligations that could be paid in other — but perhaps less economical — ways. For example, death proceeds can be used to pay estate taxes, eliminating the need to sell illiquid assets at discounted prices. Life insurance is often used to fund buy-sell agreements and deferred compensation plans, as an alternative to relying on the business's future earned income.

- **Investment.** Life insurance competes with other investments in two ways. Life insurance cash values can be thought of as a separate asset class, with distinctive risk and return characteristics that might make it appropriate as a savings vehicle for retirement, education, or other goals. Life insurance can also be purchased as an investment for heirs or for charity; the life insurance death benefit is an alternative to the values at death available from other investments, such as stocks, bonds, or real estate.

We'll come back to these uses after a product tour.

THE TYPES OF LIFE INSURANCE

You can divide life insurance policies into two basic groups: term and cash value.

Term insurance is pure protection and has no cash surrender value. The most common varieties are:

- **Annual renewable term.** Premiums typically increase each year, and the policy can be renewed to some maximum age.
- **N-year renewable term.** Premiums remain level for five to 30 years, at which time the policy can be renewed at a higher premium for another multi-year period. In most cases, you must provide evidence of insurability to qualify for favorable renewal rates; otherwise, the policy reverts to expensive annual renewable term.

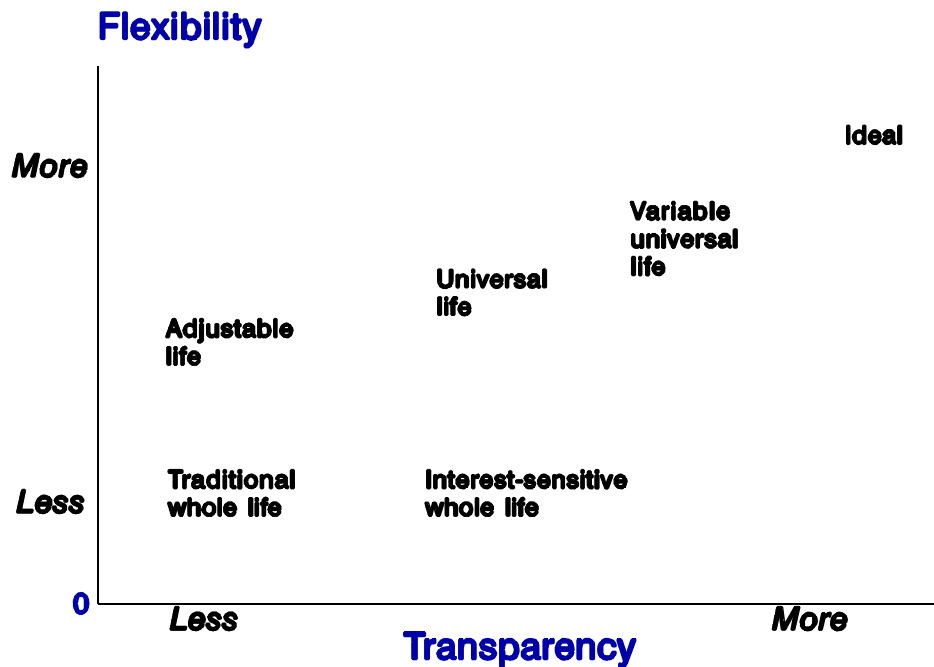
In contrast, cash value life insurance combines protection with savings. During the early years, the premium exceeds the actual death claims and expense loadings. This excess accumulates at interest and can be drawn upon in later years to reduce the premium that would otherwise be necessary or to provide funds for some other purpose. Every cash value policy can be viewed as an interest-bearing checking account. You pay premiums into an internal fund, and the insurer deducts insurance and expense charges and credits interest.

Figure 1 (next page) locates the most common cash value policies along two dimensions: flexibility and transparency. The most flexible policy imaginable would let you increase or decrease the premium, increase or decrease the death benefit, withdraw a portion of the cash value, and choose the investments backing the policy. No policy can reach this ideal because of restrictions dictated by tax laws¹ and good business practice.

The most transparent policy imaginable would disclose the insurance and expense charges, interest credits, and all of the pricing assumptions that lie behind the policy values. No policy can reach this ideal because insurers regard much of this information as proprietary.

Figure 1

A Comparison of Cash Value Products



These questions are a starting point for becoming familiar with a cash value policies:

- How does the policy work?
 - N How is interest credited?
 - N How is the cost of insurance deducted?
 - N How are other expense charges deducted?
 - N How does the company recover its expenses and make a profit?
- How flexible is the policy, before and after issue?
 - N How can you change the premium?
 - N How can you change the death benefit?
 - N How can you change the cash value?
 - N How can you change the investments backing the policy?

The main types of cash value life insurance are:

- **Traditional whole life.** This is the oldest type and still has the largest market share. Premiums are fixed, guaranteed, and based on conservative interest and mortality assumptions. Each year the company pays a dividend that reflects the difference between actual and assumed experience. Among other options, dividends can be used to reduce the premium or to purchase additional whole life insurance — called *paid-up additions* — at bargain rates. Many companies offer paid-up additions and term riders that allow the buyer to design a customized plan before issue and to make limited adjustments after issue. Partial surrenders may also be allowed.

On the surface, traditional whole life doesn't look like a checking account at all; you see only premiums, death benefits, guaranteed cash values, and dividends. Figure 2 (next page) shows the internal activity that is invisible from the outside²; the shaded columns indicate the only items typically disclosed to the consumer. In this real-life example, the company uses a common three-factor dividend formula with interest, mortality, and expense components. A current rate of interest is credited in two pieces: *tabular interest* in the reserve (4.5%) and the interest component of the dividend (4.75%). A current cost of insurance is also charged in two pieces: an excessive charge is made in the reserve (the *tabular cost*) and then a portion is refunded through the mortality component of the dividend. The net charge reflects the company's actual experience; for example, in the first year the actual insurance charge is \$1,614 (\$10,755 - \$9,141). Expenses are charged as an annual premium load (\$2,000) and a dividend reduction (the expense component). There is also a hidden surrender charge, reflecting the difference between the *terminal reserve* and the guaranteed cash value. Why is the surrender charge positive — that is, a surrender "credit" — in Years 5-8? This was actually a pricing mistake; the surrender charge was supposed to grade to zero by Year 10, and the company is now holding additional reserves to cover its liability.

Few insurance companies will provide an analysis similar to Figure 2 upon request, and few consumers would probably want to see it. However, some questions about traditional whole life can only be answered by referring to the invisible mechanics, as we'll see shortly. Also, when the components of the dividend are disclosed, it's easier to understand how a change in any one factor would affect the dividends. In this example, the interest component becomes relatively more important over time, so it's not surprising that a 1% drop in the dividend interest rate from 9.25% to 8.25% would cause a 5% drop in the total dividend in Year 3 and a 10% drop in Year 10.

No cash value product tells you less about itself than traditional whole life, but its inner structure doesn't have to be a mystery.

Figure 2

What Traditional Whole Life Looks Like Inside												
Year	Initial reserve	Gross premium	Loading	Tabular interest	Tabular cost	Terminal reserve	Surrender charge	Guaranteed cash value	Interest	Dividend components	Total dividend	
1	\$0	\$28,215	\$(2,000)	\$1,180	\$(10,755)	\$16,641	\$(8,551)	\$8,090	\$1,234	\$9,141	\$(306)	\$10,080
2	16,641	28,215	(2,000)	1,929	(11,489)	33,296	(6,281)	27,015	2,036	9,706	(792)	10,950
3	33,296	28,215	(2,000)	2,678	(12,222)	49,968	(3,598)	46,370	2,827	10,282	(814)	12,295
4	49,968	28,215	(2,000)	3,428	(12,966)	66,646	(811)	65,835	3,619	10,789	(848)	13,560
5	66,646	28,215	(2,000)	4,179	(13,742)	83,299	2,161	85,460	4,411	11,155	(886)	14,680
6	83,299	28,215	(2,000)	4,928	(14,583)	99,860	5,355	105,215	5,202	11,345	(937)	15,610
7	99,860	28,215	(2,000)	5,673	(15,499)	116,250	8,270	124,520	5,989	11,348	(1,016)	16,320
8	116,250	28,215	(2,000)	6,411	(16,524)	132,353	11,627	143,980	6,767	11,282	(1,104)	16,945
9	132,353	28,215	(2,000)	7,136	(17,634)	148,071	0	148,071	7,532	11,244	(1,201)	17,575
10	148,071	28,215	(2,000)	7,843	(18,777)	163,353	0	163,353	8,279	11,278	(1,286)	18,270

• **Adjustable life.** Adjustable life is as opaque as traditional whole life, but it’s more flexible. By changing the premium, death benefit, or dividend option, you can move between different plans of insurance, such as whole life paid up at age 65 or term to age 70.

• **Universal life.** Universal life lets you change the premium, death benefit, and cash value, within limits. There is no fixed premium, but the policy will lapse if there isn’t enough money in the accumulation account to pay the various charges. All monthly credits and deductions are shown in an annual statement. Figure 3 displays the activity during the first five years for a policy with the same death benefit and annual outlays as the traditional whole life policy in Figure 2. The checking account analogy is readily apparent. Unlike most policies, this one has no surrender charge, so the account value and the cash surrender value are the same. Policies sold by agents usually have a declining surrender charge that disappears after 10 to 20 years.

Figure 3

What Universal Life Looks Like Inside								
Year	Beginning account value	Premium	Expenses	Cost of insurance	Interest	Ending account value	Surrender charge	Cash value
1	\$0	\$28,215	\$(926)	\$(4,682)	\$1,999	\$24,606	\$0	\$24,606
2	24,606	18,135	(574)	(5,149)	3,213	40,231	0	40,231
3	40,231	17,265	(548)	(5,639)	4,431	55,740	0	55,740
4	55,740	15,920	(508)	(6,196)	5,621	70,577	0	70,577
5	70,577	14,655	(470)	(6,833)	6,756	84,685	0	84,685

Assumptions:
 • Male nonsmoker, age 65; \$500,000 face amount
 • 8.05% current interest rate

One common myth is that universal life lacks guarantees; however, you can get the same level of guarantees that traditional whole life provides if you pay a whole life premium each year. The two products differ in flexibility and transparency, not in the strength of their guarantees.

• **Interest-sensitive whole life.** This is also called *current-assumption whole life* or *fixed premium universal life*. The monthly credits and deductions are shown in an annual statement, as with flexible premium universal life, but there is a fixed premium as with traditional whole life. Some flexibility is available through riders and premium recalculation options.

• **Variable universal life.** Variable products add another dimension of flexibility: investment choice. Unlike book-value-based products, where the insurer declares a fixed rate of interest and bears the investment risk, variable life products allow the policyholder to choose among a family of stock, bond, and other funds, with a fluctuating value. Like universal life, variable universal life permits adjustments to the premium, death benefit, and cash values. Fixed-premium variable products are also available, although their current market share is much smaller.

Variable life is more transparent than non-variable products, because there is more required disclosure of policy loads. For example, the spread between what the company earns on its investments and what it passes along to you is specified in the contract; that's generally not true for non-variable products, such as universal life and traditional whole life.

• **Second-to-die.** Second-to-die (also called *survivorship* or *last survivor*) products have received a lot of attention recently, even though fewer than 25,000 policies are sold throughout the United States each year. These products insure two lives — often a husband and wife — and pay off at the second death. Their main use is in providing liquidity to pay estate taxes, although there are family protection and business uses as well. Most companies offer a *policy split option* in the event of divorce or a significant change in estate tax laws; evidence of insurability may or may not be required. In theory, second-to-die policies can be created using any of the forms for single-life products, but the major players tend to use traditional whole life as the chassis, with paid-up additions and term riders available for more flexibility.

In addition to policy form, second-to-die products differ in what happens at the first death. Under one approach, all policies are treated the same, regardless of whether one or two insureds is still alive. Under a second approach, policies are placed in three separate pools — both alive, male alive, and female alive — and cash values and dividends jump up at the first death. You can understand why by looking at Figure 2 again. The cash value increases in tandem with the reserve, which is higher for a single life than for joint lives because there is more risk that a death claim will be paid soon. The dividend increases because the interest component is based on the reserve, which is now higher.

When there is a term rider, the rates may or may not increase at the first death, so different designs have different levels of risk.

• **First-to-die.** Interest in first-to-die products has been growing as more people explore the applications in family and business situations. For example, first-to-die life insurance can be an economical way to satisfy the protection needs of a dual-income family or to fund a buy-sell agreement among business owners. As with second-to-die, any policy form is possible in theory.

• **Single premium life insurance.** Any of the product types described above can become single premium life insurance. For example, a universal life policy can be funded with a single premium, or a paid-up additions rider can turn annual premium whole life into a single premium product. Most single premium life insurance is interest-sensitive whole life with a net interest rate and no explicit insurance or expense charges.

The tax treatment of single premium policies is less favorable than for most annual premium policies, but single premium life insurance may still be appropriate for wealth accumulation and transfer.

• **Riders.** In addition to pure forms of single-life, second-to-die, and first-to-die policies, many companies offer riders that expand the usefulness of the base policy. For example, a *beneficiary purchase option* attached to a single-life policy creates a second-to-die death benefit, or a first-to-die or single-life rider may be attached to a second-to-die policy to provide a benefit at the first death.

Accelerated death benefit riders have also gained in number and popularity in the past few years. These riders allow policyholders to receive a portion of the death benefit prior to death upon a medical diagnosis of a triggering condition, such as terminal illness, long-term care, or a serious disease. The cost of this benefit may be paid by all policyholders, through an additional premium, or by only those who receive the advance, through a policy loan or a discounted benefit. Accelerated death benefit riders are not a substitute for comprehensive medical or disability insurance, but they may add value in some situations.

IS LIFE INSURANCE MAGIC?

In a word, no.

There's certainly nothing magical about term insurance. On average, companies pay out less than 75% of term premiums for death claims; the rest goes for expenses and profit. Term insurance solves the need for protection, but you pay for the risk-pooling service performed by the insurer, just as you do with homeowners or automobile insurance.

Cash value life insurance is much harder to understand. On one hand, these products are burdened with high sales expenses. Total acquisition costs — including distribution, underwriting, and issue — often exceed the first-year premium. On the other hand, cash value life insurance enjoys several tax advantages, some of which are just different ways of saying the same thing:

- Investment earnings within the policy grow tax-deferred and escape income tax entirely upon death.
- The cost basis is the sum of premiums paid, without any reduction for the cost of insurance. This shields a portion of the investment earnings from income tax if you surrender the policy.
- Insurance and other charges within the policy can be paid with pre-tax dollars by drawing upon the accumulated investment earnings. For example, if you deposit \$5,000 in a universal life policy and earn \$350 interest, the entire \$5,350 account balance (less any surrender charges) is available to pay future insurance costs. In contrast, if you buy term insurance and invest separately, you'll owe tax on interest earned and pay the term premiums with after-tax dollars.
- With flexible policy designs, future insurance costs can be prefunded at a discount rate that is equal to the credited interest rate. For example, if the policy pays 7% interest, you could cover anticipated insurance charges of \$1,000 in the fifth year by depositing \$713 (i.e., $\$1000/1.07^5$) today. That's less than you would need to invest outside the policy in a taxable investment paying 7% to have enough to pay the same \$1,000 with after-tax dollars in five years.

Are the tax advantages of cash value life insurance sufficient to offset the higher expenses? That depends on the products you compare. In general, however, you can divide policyholders into three groups: those who surrender early (say, within the first 10 years), those who surrender later, and those who hold their policies until death. Figure 4 summarizes the consumer experience for a typical block of policies sold by commissioned agents.

Figure 4

How Policyholders Fare		
Action	% of policyholders*	Consumer value
Surrender early	35-55%	Awful; shouldn't have bought the policy
Surrender later	20-40%	Good
Hold until death	10-40%	Very good
Overall	100%	Neither bad nor good

* Based on issue ages 35-65, with typical lapse rates.

Not surprisingly, the large number of people who surrender early fare the worst; they often lose all or most of their investment and would be much better off if they bought cheap term insurance and invested their money elsewhere. People who surrender their policies after a longer period will generally do as well or better than if they bought term insurance and chose other investments of comparable risk.

Cash value policies offer the best value on average when held until death. As we'll see shortly, "on average" hides a wide variation, but as a group, the policies' beneficiaries probably inherit more money than they would if the premiums were invested elsewhere.

In most cases, the great losses suffered by those who drop their policies after only a few years more than offset the favorable experience of the other two groups. As a result, cash value life insurance probably does not increase the wealth of American consumers in the aggregate, in a present value sense. That's not necessarily a criticism, because term insurance is even worse.

Many uses of cash value life insurance focus on the third group of policyholders — those who hold until death — so it's worthwhile to look at the risks and returns of life insurance from the perspective of the beneficiaries, as if it were any other investment. Like all investments, life insurance has outflows — the premiums and, for existing policies, the current cash value that is being recommitted — and inflows — the death benefit. Life insurance is an unusual investment, however, because there is uncertainty about both the amount and the timing of the cash flows. In most cases, you don't know exactly what the premiums or the death benefit will be, and you certainly don't know when the death benefit will be paid.

Figure 5 shows the risk and return of a \$500,000 policy in three ways: rate of return on death, net present value, and expected net present value.

Figure 5

Analysis of a \$500,000 Policy						
Policy year	Age	Premium	Death benefit	Rate of return on death	Net present value	Chance of death
1	65	\$28,400	\$500,000	1700.0%	\$443,300	0.3%
2	66	28,400	500,000	280.0	389,800	0.5
3	67	28,400	500,000	120.0	339,300	0.7
4	68	28,400	500,000	69.0	291,700	0.9
5	69	28,400	500,000	45.0	246,800	1.2
10	74	0	500,000	17.0	152,400	1.9
15	79	0	500,000	10.0	81,800	4.2
20	84	0	500,000	7.2	29,100	4.9
25	89	0	500,000	5.6	(10,300)	4.2
Expected present value		\$126,000	\$173,000		\$47,000	
Assumptions: <ul style="list-style-type: none"> • \$500,000 universal life policy issued to a 65-year-old man; level death benefit • \$28,400 premium for five years • 8% credited interest; 6% after-tax discount rate • Mortality rates are equal to 85% of the 1975-80 Nonsmoker Select & Ultimate Table; life expectancy is 19.8 years (shaded row). 						

The *rate of return on death* is sometimes shown on policy illustrations; it's just the internal rate of return for the premiums and death benefit, or the rate at which premiums would need to be compounded to equal the death benefit in the assumed year of death. These numbers can give you a rough idea of how life insurance compares to other investments, such as zero-coupon bonds. This measure of investment merit is awkward to work with, however, because you can't combine rates of return over different time periods to get a meaningful average. You can also reach spurious conclusions.³

Net present values are more useful, because they measure how much better off you'll be in today's dollars by making an investment. That scale of reference makes it easier to decide if the activity is worthwhile.

By definition, the net present value of an investment is the difference between the present value of the amounts received and the present value of the amounts invested. For selected policy years, Figure 5 shows the difference between the present value of the death benefit and the present value of all premiums paid, based on a 6% discount rate. The life insurance “investment” has a positive net present value if death occurs before Year 23. For example, if you die in Year 10, your heirs will have about \$152,000 more wealth, measured in today’s dollars, if you buy the life insurance policy instead of investing the premiums elsewhere at 6%. Another way of looking at it is that you could spend or give away \$152,000 and still leave your heirs the same amount they would otherwise have.

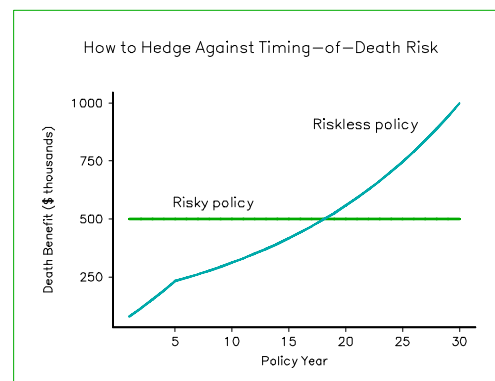
If you multiply each of the present values by its probability of occurrence, you can compute the *expected net present value*. In this example, the expected present value of the premiums is \$126,000 and the expected present value of the death benefits is \$173,000, so on average your heirs could expect their present-valued wealth to increase by \$47,000. Unlike term insurance, cash value life insurance can produce an overall gain for beneficiaries.

However, it’s clear that this is a risky investment, because the net present value depends on the date of death. Based on reasonable death rates, there’s a 34% chance of suffering a present-value loss. Note that the riskiness of this policy is obscured if you look only at the year of life expectancy (Year 20); in fact, only 5% of the insureds in this example die at life expectancy and only 47% die within five years of life expectancy.

Now consider this question: What pattern of death benefits would produce the same \$47,000 expected net present value with no variability in the yearly net present values? In other words, can we create a policy with the same return and less risk?

Figure 6 shows what this policy would look like. Instead of a level \$500,000 death benefit, the “riskless” death benefit starts at \$80,000 and rises quickly over time, producing a constant net present value of \$47,000. That’s how you hedge against timing-of-death risk. Unfortunately, perfect hedging isn’t possible in practice, because insurance companies won’t allow such rapid growth in their exposure. Also, constant adjustments would be needed to maintain the hedge.

Figure 6



The best you can do with the policy in Figure 5 is to lower the initial death benefit to \$320,000 if you want to avoid having a *modified endowment contract*^A; the death benefit will then be forced up over time to satisfy tax law requirements. If the tax disadvantages of a MEC don't bother you, you could pay a single premium of \$127,000 (the present value at 6% of \$28,400 for five years) and set the initial death benefit at about \$270,000. By giving up some of the windfall if your death comes early, your beneficiaries can reduce the risk of suffering a present-value loss if you live well beyond life expectancy.

Of course, you shouldn't lower the initial death benefit below the minimum that you would want your heirs to receive if you died tomorrow. Don't forget that the main function of life insurance is protection; it sets a guaranteed floor under the value of your estate.

But what if your goal is to set a floor under the purchasing power of your estate? The purchasing power of a level death benefit will be eroded by inflation over time, so a rising death benefit is needed to prevent a loss. If you assume 6% inflation, you can interpret the net present values in Figure 5 as purchasing power gains or losses.

Determining an appropriate pattern of death benefits will likely involve trade-offs. You may want to set a minimum value in absolute dollars, while limiting the risk that the insurance policy will be a poor investment if you live beyond life expectancy. That will probably mean accepting a lower initial benefit and putting enough money in the policy to fund a rising future benefit.

The magic of second-to-die policies

Our investment perspective can be extended to comparisons of second-to-die and single-life policies. A typical sales pitch for second-to-die life insurance touts its cost advantage. You might be shown this comparison of level premiums for \$1,000,000 of coverage:

\$500,000 policy for a male age 65	\$11,600
\$500,000 policy for a female age 65	9,500
Total	\$21,100
\$1,000,000 second-to-die policy	\$13,600

It appears that the second-to-die policy costs about one-third less than two single-life policies, but the two alternatives aren't comparable. The single-life alternative provides a higher death benefit on the second death in most cases, because \$500,000 can be reinvested at the first death. If the two deaths are many years apart, the two single-life policies could provide a much higher benefit.

This kind of comparison will get you nowhere. To understand the investment merits of single-life and second-to-die policies, you need to ask what death benefits you can buy with the same premium. Using real products, let's assume that a 65-year-old couple faces these three choices, all of which require a \$62,000 annual premium for five years:

1. \$690,000 policy on husband, with a \$62,000 premium
2. \$375,000 policy on husband, with a \$33,500 premium
\$375,000 policy on wife, with a \$28,500 premium
3. \$1,000,000 second-to-die, with a \$62,000 premium

In each case, the premium is close to the maximum allowed without creating a modified endowment contract.

If deaths are assumed to occur at year-end and if the policies mature at age 95, there are 900 possible combinations of deaths; i.e., 30×30 . One way to visualize all of these possibilities is to use three-dimensional surface plots.

Figure 7 on the next page is a surface plot of the inheritance created by a policy on the husband's life alone. The vertical axis shows the amount inherited, and the two horizontal axes show the ages at which the husband and wife die. For example, if the husband dies at age 66 and the wife dies at age 95, their heirs would receive about \$5 million. If the wife dies at age 66 and the husband dies at age 95, their heirs would receive about \$2.2 million. The surface plot displays the benefits for all 900 combinations of the two deaths.

The death benefits in Figure 7 represent the amount that the couple's heirs would receive at the second death. If the wife dies first, the benefit at the second death is just the husband's policy proceeds, because the policy is on the husband's life only. In our example, the policy death benefit is about \$2.2 million at the husband's age 95; that's what the couple's heirs would receive regardless of when the wife dies. If the husband dies first, the life insurance proceeds are assumed to be reinvested at 6% until the wife dies. For example, if the husband dies at age 66, the \$690,000 policy proceeds would grow to \$5 million by the wife's age 95. Because the inheritance at the second death depends on the timing and sequence of deaths, the pattern is not symmetrical.

Figure 7

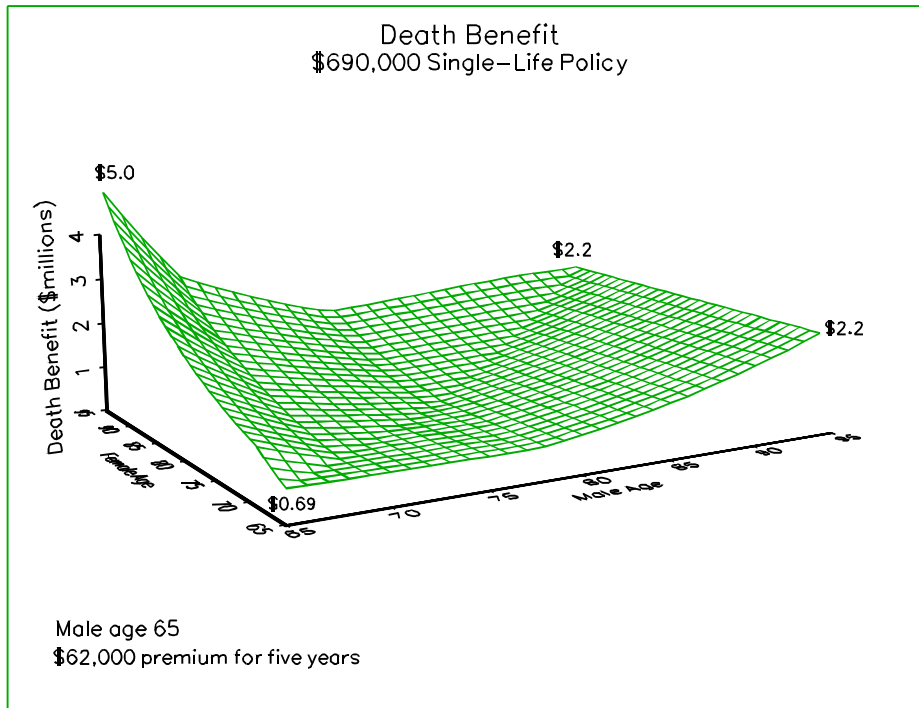


Figure 8

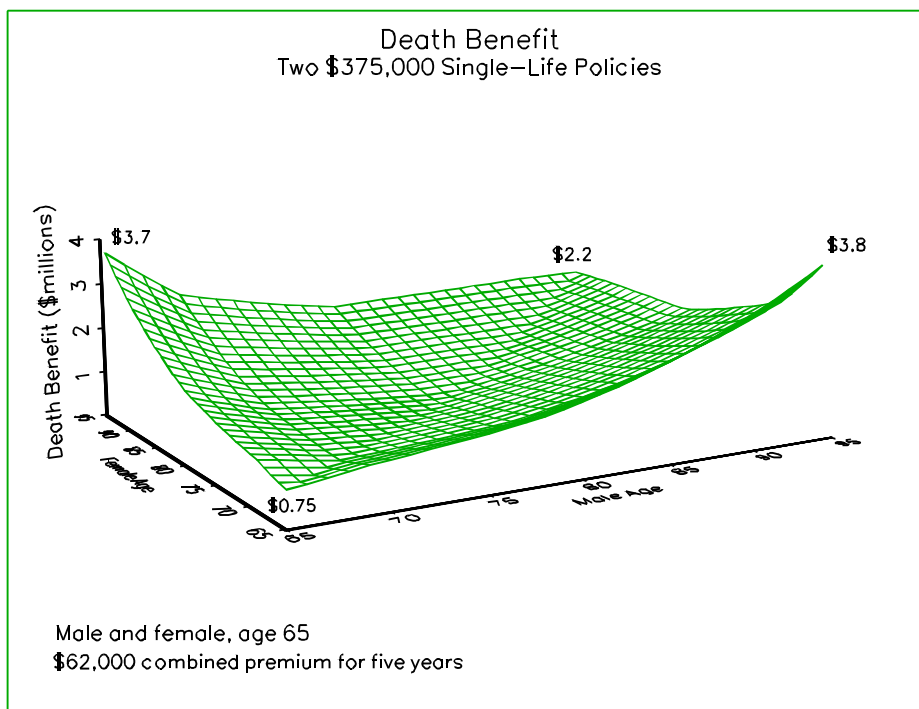


Figure 9

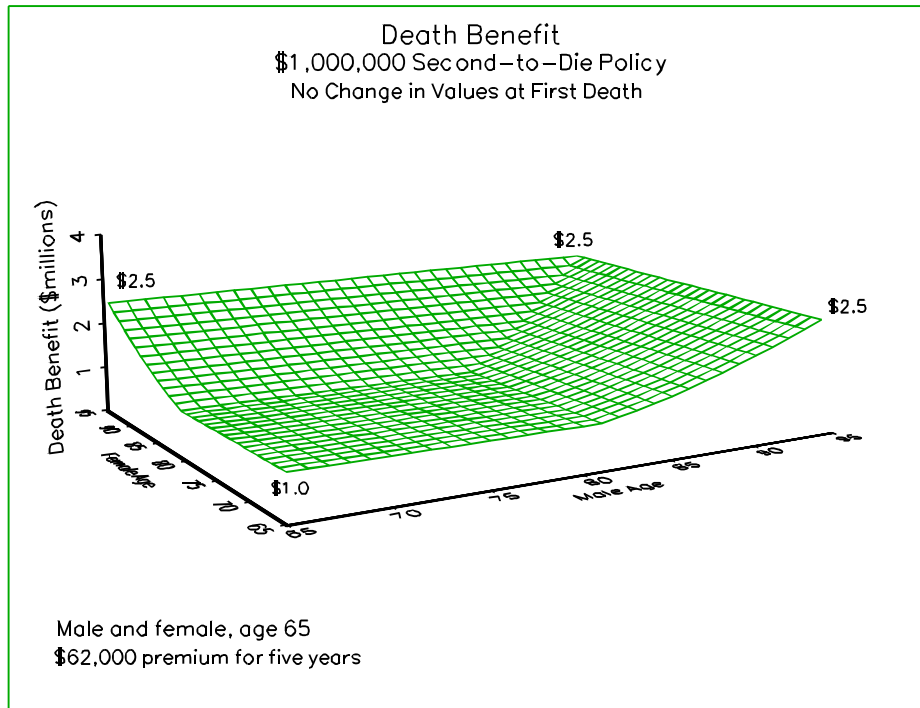


Figure 10

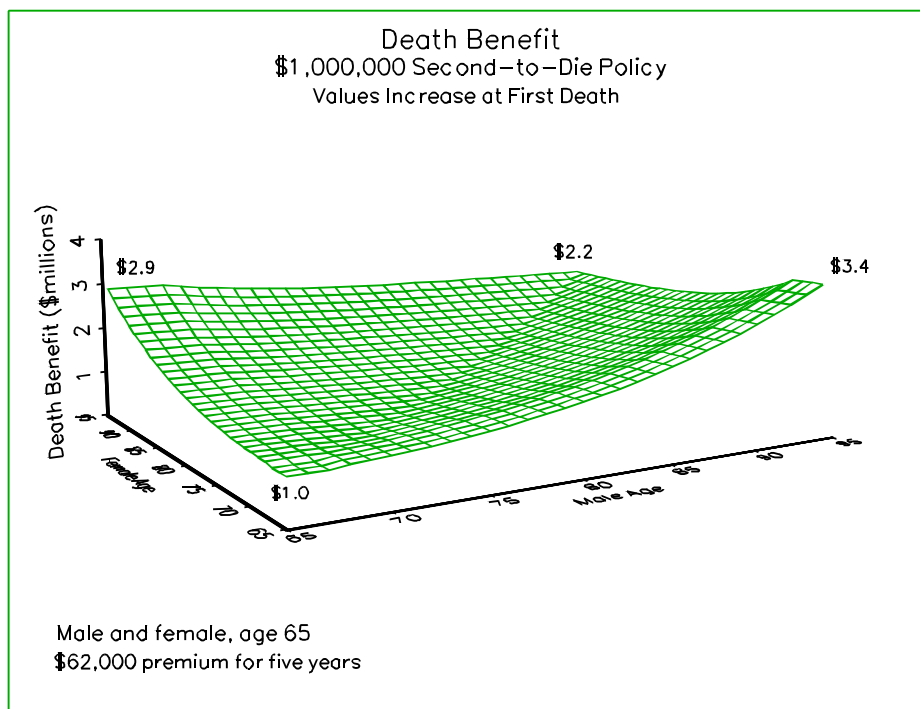


Figure 8 shows the second-death inheritance produced by a combination of two \$375,000 single-life policies. As in Figure 7, the life insurance policy proceeds are assumed to be reinvested at 6% at the first death; this fund is then added to the proceeds of the other policy at the second death.

Figure 9 plots the death benefits of a second-to-die policy that has no change in values at the first death. The death benefit at the second death does not depend on the timing of the first death, so the pattern is symmetrical. Even though this is a level-death-benefit policy, the high premium eventually forces the death benefit to rise to maintain the tax-favored treatment of life insurance.

Figure 10 shows the death benefits of a second-to-die policy whose cash values and dividends jump up at the first death. The death benefit at the second death now depends on the timing and sequence of deaths.

What can we say about the risk and return of these alternatives? Here are the expected net present values, using a 6% discount rate:

1.	\$690,000 policy on husband	\$96,000
2.	\$375,000 policy on husband	\$50,000
	\$375,000 policy on wife	51,000
	Total	\$101,000
3.	\$1,000,000 second-to-die policy (no change at first death)	\$148,000

The second-to-die policy offers a higher return for each \$1 invested than the single-life policies because joint life expectancy (about 25 years in this example) is higher than either single-life expectancy (20 years for the husband and 22 years for the wife). That means investment earnings can grow tax-deferred within the second-to-die policy for a longer period on average. The single-life policies would only provide better value at a higher reinvestment rate — say, 15% — but in that case a first-to-die policy would be the best choice of all.

What about risk? Figure 11 is a surface plot of the net present values of one of the second-to-die policies. As before, this displays the results for all combinations of deaths. You could measure risk as the range or variance of the net present values. In this example, the net present value ranges from a high of \$881,000 if both spouses die at the end of the first year, to a low of \$95,000 at age 81. However, range and variance don't say anything about the probability of each outcome, so these measures can be misleading.

Figure 11

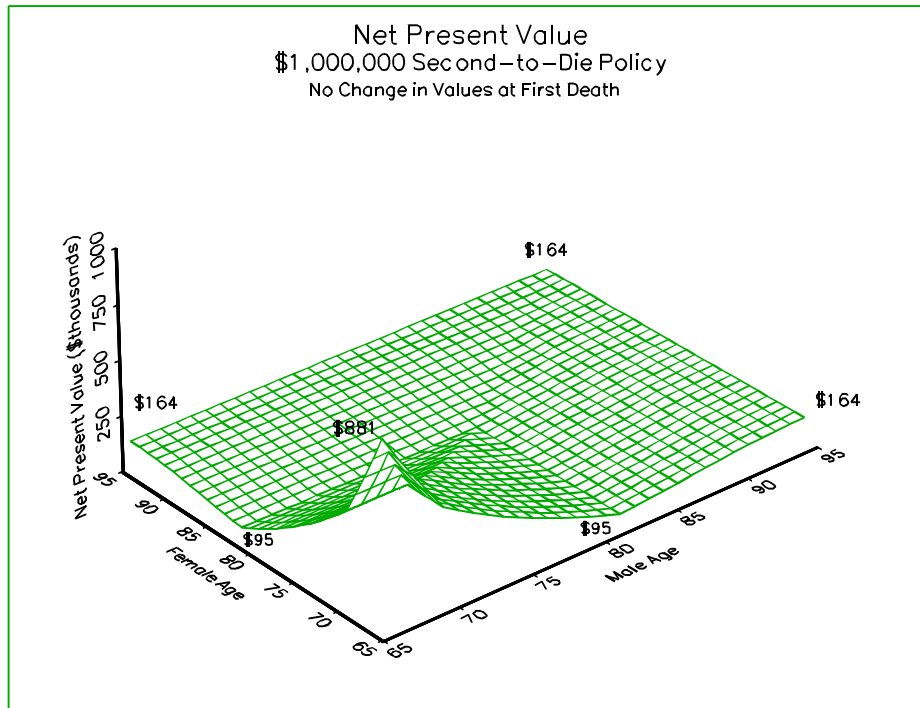
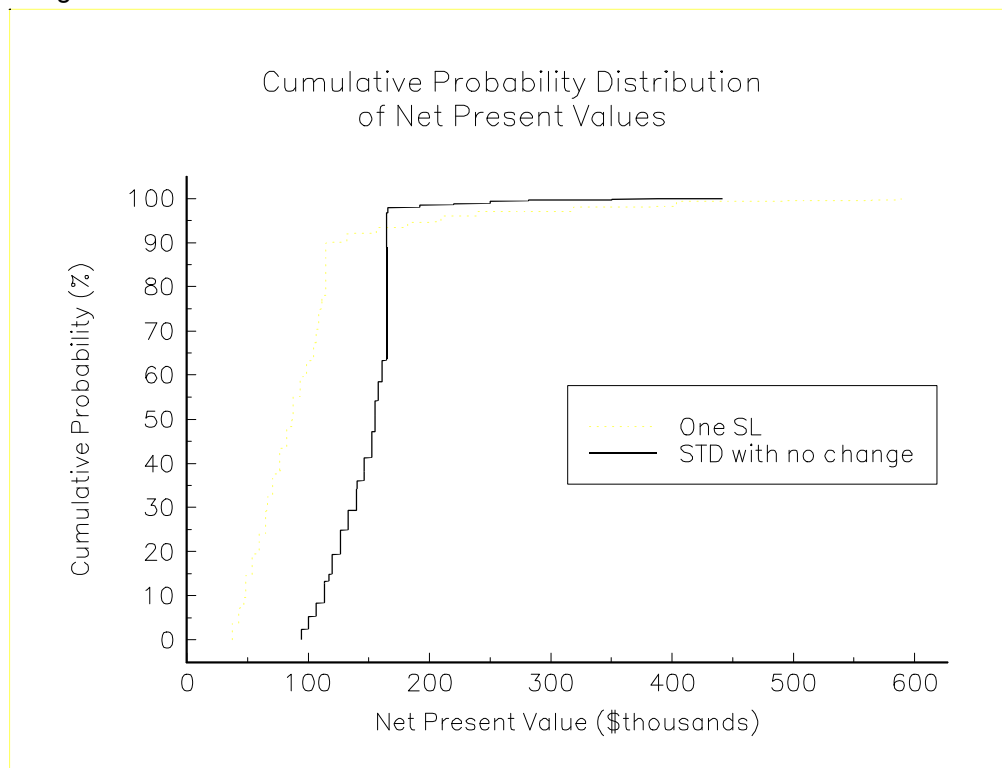


Figure 12

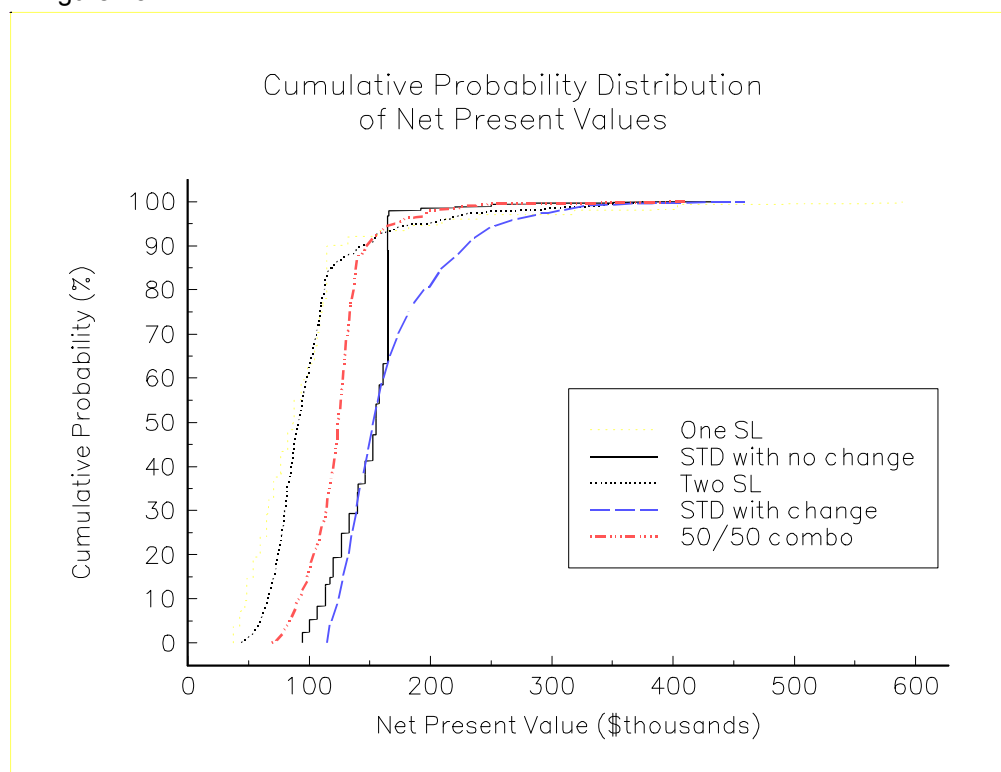


A better way to assess risk is to use simulation techniques to find the probability of each outcome and, therefore, the distribution of results. Figure 12 displays the cumulative probability distributions of net present values for the single-life policy in Figure 7 and the second-to-die policy in Figure 9. For each net present value (horizontal axis), you can read the probability of receiving that amount or less. For example, there's a 50% chance that the second-to-die policy will produce a present-value gain of less than \$155,000, and there's no chance of a present-value loss.⁵

In some cases, this type of graph makes it easy to determine the best alternative. If one curve lies completely to the right of another, you should choose the right-hand alternative, because it produces a higher gain at all levels of risk.⁶ Even if the curves cross, you may be able to make a choice without much difficulty. You can see from Figure 12 that the second-to-die policy provides a more attractive overall distribution of results; in fact, with more calculations you can show that it produces a better result over 90% of the time.

Figure 13 shows the results for three other alternatives: two single-life policies (see Figure 8 for the death benefits), a second-to-die policy with a jump-up in values at the first death (see Figure 10), and a 50%/50% combination of the two single-life policies in Figure 8 and the second-to-die policy in Figure 9.

Figure 13



It may be superficially appealing to hedge your bet with a combination of single-life and second-to-die policies, but that's probably not a good strategy; in this example, a single-life/second-to-die combination produces a lower net present value than pure second-to-die over 85% of the time, with a less favorable distribution of results. Of course, single-life and first-to-die policies or riders are certainly appropriate when it makes sense to pay estate taxes at the first death.

Although the second-to-die policy with a jump-up in values at the first death appears more attractive than the second-to-die policy with no changes, a small difference in performance could tip the scales the other way. The main issue in evaluating these two types of second-to-die policies is not the probability distribution of net present values, but rather the risk that the product will fall apart at the first death. You should always test several sequences of deaths, particularly if a large term rider is part of the configuration.

Beneficiary purchase options on single-life policies offer another second-to-die alternative. Intuitively, the expected net present value should be less than that of pure second-to-die policies and greater than that of a single-life combination; that's because the proceeds at the first death are reinvested in a new policy, which continues to enjoy the benefits of tax deferral. (I'll leave it to the advocates of these products to do the computations for the 900 combinations of deaths.) A more important issue is the future competitiveness of the insurer's single-life policies; the option to purchase a mediocre product may not be worth much.

A risk/return perspective on life insurance dovetails with a probabilistic approach to estate planning in general. The goal of probabilistic estate planning is to give families a set of choices that maximizes the expected present value of the heirs' inheritance at various levels of risk. Adding life insurance to an estate plan probably increases the expected present value in most cases. Whether it increases or decreases risk depends on the pattern of premiums and death benefits, the nature of the estate's assets and liabilities, and the risk measure used.⁷ Instead of being a magical way to pay estate taxes for "pennies on the dollar," life insurance should be viewed as a tool that expands the range of planning options.

The magic of existing policies

Existing policies deserve a quick look before we move on. Because of the front-loading of commissions and other expenses, a policy that looks unattractive to a prospective buyer can offer good value after purchase. This is demonstrated in Figure 14, which shows the *average annual rates of return* at issue and one and two years later. (The average annual rate of return is the compound return that you would have to earn to match each year's cash value if you bought term insurance and invested the difference elsewhere.) To recover acquisition costs quickly and to encourage policyholders to keep their contracts in force, this company builds a heavy load into

the product in the first two years. A careful shopper would probably look at the dismal rates of return through the tenth year and walk away. However, someone who makes the mistake of buying it and discovers his error two years later is in a very different position. Instead of a 3.3% compound return for Years 1 through 10, the policy now provides a 9.0% compound return for Years 3 through 10. It has become an excellent investment, because the declining surrender charge boosts the rate of return.

The rates of return in Figure 14 take into account the value of the insurance protection. In some cases, an existing policy may offer a higher cash value rate of return than a deferred annuity, so it can make sense to keep it even if you no longer need life insurance.

Before dropping any policy, you should consider a tax-free exchange (called a *1035 exchange*, referring to the tax code section) to another life insurance policy or a deferred annuity. This lets you postpone income tax on gains within the policy. If the premiums you've paid exceed the surrender value (so you have no taxable gain), a tax-free exchange lets you use this excess cost basis to shelter future gains. That's a valuable benefit that shouldn't be carelessly discarded.

Figure 14

Average Annual After-Tax Rate of Return Looking Ahead From Three Points in Time			
Year	At issue	After one year	After two years
1	-93.0%		
2	-83.0	-81.0%	
3	-36.0	-25.0	13.0%
4	-18.0	-8.8	11.0
5	-9.2	-2.3	9.8
10	3.3	5.9	9.0

Assumptions:

- \$4.5 million policy issued to a male nonsmoker, age 51
- 35% income tax rate upon surrender
- Policy values are based on current dividend scale
- Term rates are based on 10-year level term

HOW TO SHOP FOR LIFE INSURANCE

Getting in and out of the life insurance marketplace with your sense of competence intact requires a set of skills. Let's discuss the important ones.

How to choose an adviser

You may or may not need help in getting from start to finish. Most insurance advice is given by agents and brokers who receive commissions and other compensation from insurance companies for product sales. If you don't buy something, they don't get paid. Commission-based distribution systems dominate the marketplace because most people won't buy life insurance without sales pressure. High front-end commissions are needed because most sales efforts fail and because it takes time to explain the product and shepherd the application through all the steps. The obvious disadvantage of the traditional system is that you can't be sure the agent's advice isn't being distorted by the need to sell a product. Some agents manage to overcome this inherent conflict, while others don't.

Agents also differ in their dedication to providing service after the sale. Front-loaded commissions reward agents more for finding new customers than for keeping existing customers happy, so even though you're entitled to a "lifetime of service" you might have trouble getting your phone calls returned.

If you decide to rely on a commission-based agent, it's usually best to choose only one. It may seem clever to invite several agents to make proposals, but you'll often wind up with stacks of paper, conflicting assertions, and no quick way to get at the truth.

Fee-for-service financial planning advice has been available for many years, and it's available for life insurance as well. *Fee-based* advisers receive most of their compensation in fees, although they may also represent and receive compensation from insurance companies. *Fee-only* advisers receive no compensation from product vendors; they work strictly on a fee basis.

It's a good idea to ask any prospective adviser to disclose the nature and amounts of compensation to help you determine the extent of any conflicts of interest. A disclosure form is included at the back of this booklet. Disclosing all compensation will be a new experience for many advisers.

How to evaluate a complicated proposal

When you combine life insurance with qualified plans, charitable remainder trusts, and whatever else marketers can think of, it can be a challenge to make sense of it all. Most agents are not trained in finance, and their ultimate goal, after all, is to sell more life insurance. There's no simple way to evaluate a complicated proposal, but the starting point is always a simple question: what makes it work?

If the proposal merely draws upon the usual tax advantages of life insurance, you already know the potential benefits from our earlier analysis. Life insurance combined with charitable remainder trusts is one example of no value added beyond the usual. You may also discover that some benefits are attributed to life insurance when in fact they have nothing to do with life insurance; for example, the difference in tax rates between the corporation and the executive in executive bonus plans.

Some proposals draw upon additional tax advantages of life insurance; for example, the interest-free loans of split-dollar plans. In these cases, a more thorough analysis may be needed. This is particularly true when using life insurance within qualified plans; it's easy to be seduced by the simplistic argument that you can pay premiums with tax-deductible dollars.

Cash value life insurance is sometimes touted as a "private pension plan" that can provide high retirement benefits through tax-free loans. These schemes have significant drawbacks, however, and are not as financially astute as the sales pitches make them sound. In many cases, they violate the basic rule that you shouldn't borrow money if the after-tax cost of borrowing is higher than the after-tax rate of return on your invested assets. The cost of borrowing is one of the most misunderstood features of life insurance. The agent may describe the *net cost of borrowing* as 2% or less, when in fact the effective cost may be higher than for a home equity loan or other sources of funding. These proposals require a comprehensive discussion of risks and rewards.

Life insurance purchases should always be coordinated with other planning areas, including estate planning, retirement planning, and asset allocation. If you're not sure whether life insurance is an appropriate solution to a financial problem, consider asking your accountant, attorney, or other adviser to devise a plan that makes no use of it. If life insurance didn't exist, what would you do? Then you can put life insurance back in the toolbox to see if it really does add value in your situation. If nothing else, you'll know why you made your purchase — which is more than many insurance buyers can say.

How to choose a product

In most states, you can choose among several thousand products issued by about 600 active insurers. The product selection process involves a few steps.

How to choose an objective

Novice insurance buyers want the “best” product; they don’t want to hear about trade-offs and uncertainties. Experienced insurance buyers know that finding the best product is a matter of luck more than skill and that — ironically — your chances of picking the best product improve if you forget about picking the best product and lower your sights to “very good.” Money managers often strive to be among the top 25% of their peers; that’s a useful target for life insurance buyers, too. Of course, if you run across two products with a good chance of meeting that goal, you may have reasons to prefer one over another. There’s certainly nothing wrong with that.

How to choose a product type

In general, short-term needs require term insurance and long-term needs — those lasting beyond age 70 or so — require cash-value insurance. Insurance needs that are neither short-term nor permanent can be met with either type of policy.

Shopping for term insurance is relatively simple, although not quite as simple as it might appear at first glance. The most important feature to consider is the projected cost: what is the present value of the premiums over your expected holding period? Level-premium products are often cheaper than annual renewable term if your intended holding period happens to match the level-premium period; for example, 10 or 20 years. However, these products often require evidence of insurability to receive favorable rates beyond the initial period; if you don’t qualify, the cost goes way up.

Convertibility is another feature to consider; this lets you convert the term policy to one of the company’s cash value policies without evidence of insurability. Questions to ask: How long do you have the option to convert, and how attractive are the cash value policies that you can convert to?

Many websites on the Internet provide information about agent-sold products. Several companies offer no-commission term products that are usually convertible to no-commission cash value products. An updated list of these low-load products is available at www.glenndaily.com.

Choosing among the variety of cash value life insurance products is more complicated. Flexibility and transparency are two features that might affect your decision (look at Figure 1 again). More flexibility is generally better than less, but people who are not disciplined savers might welcome the nudge of a fixed premium. Transparency is important if you follow the adage that you shouldn't buy what you don't understand, although life insurance sales would plummet if people took that advice seriously.

Of course, performance is important, too, but generic statements are hard to make. A fixed premium probably reduces a company's administrative expenses and its uncertainty about future cash flows, but the effect on pricing is limited. The common view that universal life is backed by short-term (and therefore lower-yielding) investments and traditional whole life is backed by long-term (and therefore higher-yielding) investments is an exaggeration; typical portfolios vary no more than a few years in duration, so whole life's yield advantage is likely to be small. It's also misleading to compare the dividend interest rate on whole life with the credited interest rate on universal life. With traditional whole life, more of the expenses are recovered through hidden loads (go back to Figure 2), so the difference between the earned and credited interest rates is typically about 100 basis points (i.e., 1%), versus 150 basis points for universal life. Many whole life companies still enjoy an above-market portfolio yield due to past investments, which adds to the confusion.

The most significant difference in performance is between variable and non-variable products. To the extent that stocks tend to outperform fixed-income investments over the long run, variable universal life should outperform non-variable products. However, variable products also pass more investment risk onto the policyholder. By one actuary's estimate, it costs insurers about 25 basis points to provide the cash value guarantees for non-variable products. It would cost variable life policyholders much more than that to duplicate those guarantees, because individuals can't hedge as efficiently as institutions can.

The choice between variable and non-variable products is complex and must take into account your entire investment portfolio and the specific alternatives. Among the non-variable products, you can probably eliminate interest-sensitive whole life, because traditional whole life should perform at least as well and has a much longer track record.

How to evaluate financial strength

The best way to judge a company's financial strength is to hire a *valuation actuary* to prepare a comprehensive analysis. The actuary will likely make extensive use of *cash flow testing*; that is, projections of future assets and liabilities (and therefore surplus) under a wide range of plausible scenarios. Of course, "garbage in, garbage out" applies here. A thorough actuary will also examine the company's product

pricing and asset/liability management techniques, as well as its strategies for prospering in a competitive environment. An actuarial review typically costs at least \$50,000 per company, which makes it impractical for most insurance buyers.

The next-best approach is to look at the published ratings and reports of major rating agencies, including A.M. Best (www.ambest.com), Duff & Phelps (www.insure.com), Moody's (www.moody.com), and Standard & Poor's (www.insure.com). The ratings represent informed — but fallible — opinions, and the full reports provide background information about the company's operations and explain the reasons for the rating. Each agency uses its own approach involving a combination of quantitative and qualitative factors, with information obtained from public sources, such as statutory financial statements, and discussions with management. The raters also adjust their methodology as circumstances warrant; in the past, they have made changes to their benchmark capital models and have increased their attention to liquidity and market conduct.

Standard & Poor's and Weiss Ratings (www.weissratings.com) also offer ratings that are based primarily on quantitative information from public sources, with supplemental data provided by some companies.

When insurance company failures get into the news, it becomes a popular pastime to formulate rules of thumb for playing it safe, such as “buy from insurers rated AA or better,” but there's no scientific rationale for these binary rules. If a rating system is working properly, a lower rating means higher risk, not the certainty of failure. For example, only about 20% of the insurers rated C by A.M. Best in 1978-81 failed during the next 10 years.⁸ Your threshold should be driven by product selection, not simplistic rules. If you can find attractive products from AAA companies, there's no reason to accept less. If the product you want is issued by a lower-rated company, the trade-off may be reasonable — bearing in mind that financial strength can affect future product performance. One advantage of variable products is that there is some, although not complete, protection from insolvency risks.

A time-saving tip: You won't learn much by wading through the pages of financial ratios that salesmen like to distribute. These materials are typically prepared by each company's marketing department. Just throw the stuff away.

How to predict future performance

There's really no mystery about how to do "life insurance due diligence"; it's the same common sense process as for any other investment. Figure 15 summarizes the steps, with a brief commentary.

Figure 15

How to Evaluate a Life Insurance Product	
1. Get a current policy illustration and consumer brochure.	No problem. Illustrations are the coin of the realm. You can have as many as you want.
2. Learn more about the company's operations and financial strength.	Consulting actuaries and the major rating agencies can provide informed opinions.
3. Find out all of the pricing assumptions underlying the current illustration.	Good luck. At a minimum, you'd need to see the pricing actuary's <i>profit tests</i> . You may learn a little from the company's actuaries, the supplements to Schedule M and Exhibit 8 of the annual statement, and the Society of Financial Service Professionals' Illustration Questionnaire.
4. Compare these pricing assumptions with the company's past and expected future experience and the experience of its peer companies.	Again, good luck. Try the same sources listed in step 3. Insurance industry studies can provide some benchmarks for comparison.
5. Consider how the company's financial strength might impact product performance.	The reports issued by the major rating agencies may provide some clues. Default losses on assets and a need to raise capital may hurt performance.
6. Conduct a thorough audit of the company's past treatment of policyholders, and determine if any changes are likely.	Sorry, companies aren't going to let you rummage around their records playing historian. You'll have to settle for the limited surveys published by A.M. Best, occasional articles in trade publications, and the company's own declarations about how committed it is to fair treatment.
7. Try to identify any other factors that might affect product performance.	For example, "pricing methodology risk" — that's the risk that the company's actuaries will attend a seminar on new pricing techniques, return to their offices, and discover they've been underpricing their products.

In an ideal world, you'd want an in-depth analysis of every factor that can affect performance. That would mean a critical look at financial strength, product design, and the past treatment of policyholders. The reality is that ideal costs too much and requires more cooperation from the insurer than you're likely to get.

Instead, much of what passes for due diligence at the retail level is just feel-good stuff that hides how little agents really know about the products they sell. For example, information about a company's overall operations is often used as a proxy for product-specific pricing assumptions, even though it's affected by product mix, age distribution of insureds, and other factors. In my experience, the agent's recommended companies always meet all of the criteria on the "due diligence checklist." A cynic might wonder which came first, the checklist or the recommended companies?

If you can't examine products the right way, what are the least-wrong ways to do it? Here are some thoughts:

- For large purchases, consider asking the agent to provide a report prepared by an independent consulting actuary, particularly if the product outshines the competition. Sometimes this will be helpful, and sometimes it won't.
- Don't equate premium with price. For many buyers, a low premium means a good deal. That's a dangerous way to shop for cash value life insurance, because it's easy for a company to project low premiums to lure you in. Also, unless the projected death benefits are the same until maturity, you'll be comparing apples and oranges. It's more useful to think of performance in terms of the entire package of premiums, death benefits, and cash values. In theory, if you can match up the premiums and death benefits, you can judge performance by eyeballing the cash values. Rigid product designs often make that impossible, however, so you'll have to put up with flawed comparisons.
- Don't put much faith in policy illustrations, because they're not a reliable tool for comparing products. The assumptions underlying the illustrations are generally not disclosed, so it's difficult to know if the illustrated values are aggressive or conservative; that is, you have little information about risk. As proof, consider the interest rate bonuses that kick in after five to ten years on many universal life products; some bonuses are almost certain to be paid, while others are just scams to make the product look good on paper.

New state regulations governing sales illustrations should eliminate the most deceptive practices, but there is still room for companies to gain an unfair competitive advantage from consumer ignorance about the limitations of illustrations. The Society of Financial Service Professionals' *Illustration Questionnaire* is a useful starting point for asking questions.

Keep in mind, however, that the track record of earlier attempts at disclosure has been mixed. Requiring a company's actuary to sign off on a document does not guarantee accuracy; it's not unheard of for actuaries to sign their names to statements that aren't true. There may also be genuine disagreements about what is true and what isn't. One member of a 1992 Society of Actuaries task force on sales illustrations observed that "one actuary's truth is another actuary's pack of lies."

If past experience continues, people who rely on policy illustrations to pick a product in the top 25% can expect to be wrong about half the time.⁹ Illustrations are best used to explain how a product or concept works and to compare short-term, rather than long-term, projected values.

- Give some weight to a company's past performance, but remember that published information is crude and limited. Dividend histories may not be relevant for new types of products, such as second-to-die, and long-term track records aren't yet available for fixed- and flexible-premium universal and variable life. Also, a superior past doesn't guarantee a superior future; about one-third of the companies in the top quartile of traditional whole life performance for 1970-80 were not in the top quartile for 1980-90.

Performance surveys capture only one aspect of policyholder treatment. Insurers exercise control over performance in ways that may not show up without more digging. A company may say it credits interest using a portfolio-average approach but then close off the portfolio for accounting purposes when interest rates rise and start another portfolio for new business; that benefits new policyholders at the expense of old ones. Profits from one group of policyholders can also be used to subsidize another group. Only a comprehensive audit will tell you if the company really keeps its policyholders' interests in mind in its discretionary pricing decisions — or if it just pays lip service to fair treatment.

- Focus on distribution costs; that is, the commissions, allowances, and other expenses incurred in getting a life insurance product from the manufacturer to the buyer. Although future performance is unpredictable, you can stack the odds in your favor by reducing the high selling expenses that typically consume 15 to 25% of all premiums paid.¹⁰ Unlike projected improvements in mortality, nonguaranteed interest rate bonuses, and speculative investment strategies, savings in distribution costs occur immediately and are therefore easy to verify. They also pose no threat to an insurer's future solvency. If you know that a company has low distribution costs and no serious shortcomings in other important areas, such as investment yield and mortality experience, you can place a bet on future performance with more confidence than other information permits.

How to get better value for your money

There are three ways to reduce the burdensome selling expenses of cash value life insurance policies: low-load products, blending, and rebating.

Low-load products

Low-load simply means that a product has significantly lower distribution costs than traditional products, because it's designed to be sold either directly to the public with limited advertising or through fee-for-service advisers. Sales expenses are generally less than 20% of the first-year premium, versus 100% or more for agent-sold products. All other things being equal, these lower expenses translate into lower premiums and/or higher death benefits and/or higher cash values.

High early cash values are a distinguishing feature of low-load products. In some cases, the first-year cash value will exceed the first-year premium. High cash values offer more protection than high financial strength ratings, because agencies' ratings and your own circumstances can change. Policyholders lose far more money each year from early lapses of high-commission products than from the insurer failures that attract media attention.

By unbundling product and advice, low-load products give you more control over service. You can choose an independent adviser and decide how much help you want. Fees may be tax-deductible in some cases and are often negotiable. Also, because of actuarial pricing factors, you'll generally be better off paying fees instead of commissions even if the dollar amounts are the same.

A list of major issuers of retail low-load products is available at www.glenndaily.com. Many other well-known insurers also offer low-load products to corporations and wealthy individuals; the minimum first-year premium is usually at least \$250,000.

Blending

With some agent-sold products, commissions can be reduced by substituting low-commission term and paid-up additions riders for high-commission base coverage. In effect, a portion of the commission is retained within the policy to enhance the future cash values and death benefits.

Blending makes use of three building blocks that insurers provide to increase the flexibility and competitiveness of their whole life products:

Base coverage is full-commission whole life that is always used as the foundation. The minimum required amount is set by the company.

Term is term insurance that supplements the base coverage.

Paid-up additions are single-premium, low-load whole life additions.

Sometimes the term insurance and paid-up additions are combined in one rider. In most cases, the term insurance is gradually replaced by paid-up additions purchased with future dividends or premiums.

Blended policies can provide higher benefits than pure base coverage because the term and paid-up additions components have lower loads. More of your premium dollars go to work for you, instead of into the agent's pocket. Although you can use the commission savings to reduce the premiums, it's more prudent to let the savings grow tax-deferred within the policy; this reduces the risk that you'll have to pay higher premiums later if actual performance falls short of what was illustrated at the time of issue.

You can see how blending works by looking at the diagrams on the next page, which show two policies with a \$1 million death benefit. Figure 16 shows the components of the initial death benefit for both policies. The full-load policy is 100% base coverage. The blended policy consists of a foundation of \$250,000 base coverage with two layers on top: \$710,000 of term insurance and \$40,000 of paid-up additions. The term insurance will gradually be replaced by paid-up additions purchased with future dividends or premiums. Although the death benefits are initially the same, the blended policy will provide a higher benefit over time.

In this example, both policies also have a \$26,000 annual premium, as shown in Figure 17. With the full-load version, all of the premium buys base coverage. With the blended version, most of the premium is used to purchase paid-up additions. Without this component, there probably would not be enough money in the policy to pay for the future term insurance costs, and policy values would be very sensitive to changes in economic conditions. You could probably reduce the premium by 10% or so without too much risk, but you should resist the temptation to go further.

Even though the premium is the same for both policies, the blended version has a much higher cash value (see Figure 18). The base and term coverage have no cash value in the first year, whereas the paid-up additions have an immediate cash value. This advantage compounds over time and also contributes to the higher future death benefits of the blended policy. Even if you have no intention of surrendering the policy, the cash value is important because it's available for premium payments, loans, or withdrawals. And your intentions may change.

Figure 16

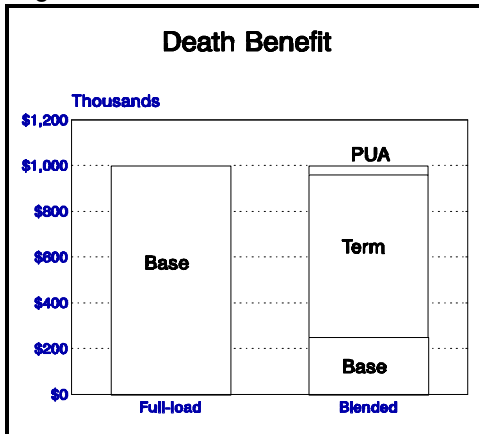


Figure 17

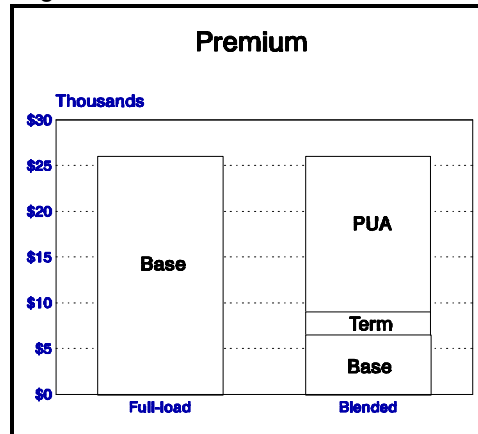


Figure 18

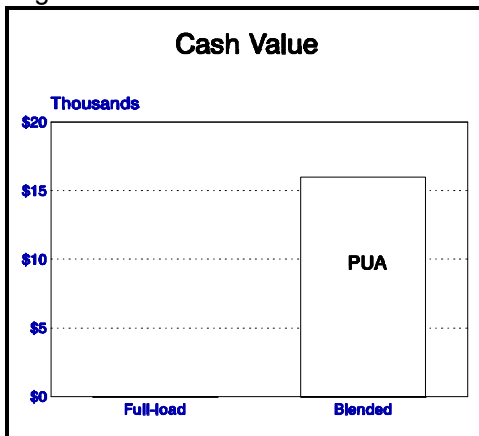
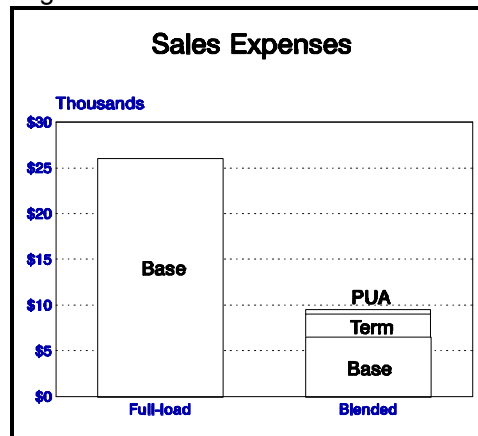


Figure 19



What explains the higher death benefits and cash values or the lower premiums of a blended whole life policy? Simple — lower sales expenses; that is, all of the goodies needed to motivate agents to sell the product. For a full-load policy, all of your first-year premium is often consumed by these costs, and there may be significant renewal-year costs as well. In contrast, the commission on paid-up additions is generally less than 5%. Blending improves performance because less of your money is lost in selling costs, as shown in Figure 19.

Are there any reasons not to buy a blended policy? Yes.

If you abuse the process by failing to buy enough paid-up additions, you'll create a risky mixture that may fall apart or require unexpected premiums later. Of course, that's your fault.

Another drawback is that blending may limit your flexibility to use dividends to reduce the premium in the future, if dividends are needed to cover the cost of the term component.

A third problem is that blending doesn't always work, because some products are priced so that the commission savings are more than offset by other factors, such as high term costs or a lower interest rate on paid-up additions. This is easy to solve: don't buy such poorly-designed products.

Rebating

For large-premium cases, you can reduce commissions further by signing the contract in Florida or California in order to obtain a legal rebate of 50% or more. The rebate will be taxable to the recipient. Rebating is subject to strict regulations in both states, so you may find it difficult in practice to obtain a rebate.

Here's what you might save in first-year selling costs with an aggressive combination of blending and rebating:

Assumptions	% of premium
Total first-year selling costs for base policy	100%
Total first-year selling costs for PUAs	5%
Base policy as % of total death benefit	25%
% of selling costs that are rebatable	60%
Rebate percentage	75%
Buyer's tax rate	35%
 Comparison of first-year selling costs	
Selling costs before blending	100%
Selling costs after blending (100% of 25%, plus 5% of 75%)	29%
Less: After-tax rebate (65% of 75% of 60% of 29%)	(9%)
Selling costs after blending + rebating	20%
Selling costs for low-load products	10-20%

By squeezing out as much of the commission expenses as possible, the buyer can obtain a better-performing product from some of the leading life insurance companies in the United States. As indicated in this example, an aggressive combination of blending and rebating can reduce selling expenses to levels near the low-load range. Low-load products accomplish this goal more conveniently and efficiently, however, so they still have an advantage in this area.

Figure 20 shows a less extreme example of blending, side-by-side with a low-load product. Not surprisingly, the low-load product offers much higher cash values than the full-commission product in the early years — when many policies are dropped. By reducing commissions through blending, the cash values of the agent-sold product can be greatly enhanced. The blended policy eventually beats the full-commission policy in death benefits as well, after the term insurance is replaced by paid-up additions.

In this example, the blended product appears to outperform the low-load after several decades, but there’s no guarantee that the assumed difference in interest rates will continue forever. In fact, it probably won’t. It’s almost impossible for an agent-sold product to beat a low-load over the short run, and it’s not easy over the long run, either. Just as some load mutual funds outperform some no-load funds, some commissionable life products may be able to beat the best of the low-loads. However, only a lucky minority of insurance buyers will pick the right agent-sold products and hold them long enough to be rewarded.

Figure 20

Getting Better Value With Low-Load and Blended Policies						
Policy year	Full Commission		Blended		Low-Load	
	Death benefit	Cash value	Death benefit	Cash value	Death benefit	Cash value
1	\$502,000	\$500	\$500,000	\$7,400	\$511,000	\$11,000
5	531,000	44,000	500,000	58,000	564,000	64,000
10	616,000	129,000	500,000	152,000	656,000	156,000
20	922,000	454,000	854,000	515,000	975,000	475,000

Issued to a male nonsmoker, age 45. \$11,600 annual premium.
 Full-commission and blended policies: Whole life with 9.25% dividend interest rate.
 Low-load policy: Universal life with 7.65% credited interest rate.

A final word

With all of the obstacles to making informed decisions about life insurance, you might be tempted to put your money somewhere else. No one could blame you for that choice. After all, why should you waste your time trying to figure out man-made puzzles when the creators deliberately withhold the clues you need to be successful? Any sensible person would feel the urge to walk away.

However, life insurance does have tax advantages that give you a cushion against poor performance. Building a diversified portfolio of policies is an intelligent and increasingly common way of dealing with the uncertainties and frustrations of buying life insurance.

Whichever products you decide to buy, the best advice for most people is to pay as much as you can as early as you can. No product will offer good value if you try to lowball the premium and then get hit later with steeper outlays than you can afford.

Finally, don't overlook the importance of properly choosing the policy owners and beneficiaries. You can turn the best-performing product into a disappointment by being careless here. An experienced attorney, accountant, or other adviser can help you take full advantage of the benefits of life insurance and avoid the hazards.

ENDNOTES

1. In particular, see Internal Revenue Code Sections 7702 and 7702A.
2. Actuaries call this a *retrospective reserve calculation*. A basic principle of actuarial science is that the reserve is equal to the difference between the expected present values of future benefits and future premiums. That's a *prospective* calculation, because you look ahead to future amounts and discount back. In a *retrospective* calculation, you arrive at the reserve balance by adding and subtracting credits and charges, as in a checking account. A second principle of actuarial science is that the two calculations always produce the same result.
3. For a rate-of-return analysis of single-life versus second-to-die policies, see Arnold M. Rosenbaum, "Survivorship Life Insurance — A Quantitative Analysis," *Journal of the American Society of CLU & ChFC*, July 1992. Also, Lynn Asinof, "Insurance That Takes Two to Make It Work," *The Wall Street Journal*, December 4, 1991. In both cases, the use of rates of return leads to dubious advice.
4. A modified endowment contract is a high-premium life insurance policy that fails the *seven-pay test* of Internal Revenue Code Section 7702A. MECs receive less favorable tax treatment before death than non-MECs. Loans and withdrawals are taxable distributions, and there is a 10% penalty tax prior to age 59 1/2.
5. You may wonder why Figure 12 says the highest net present value for the second-to-die policy is about \$430,000 when we already know from Figure 11 that it's \$881,000. Figure 11 is right, but the odds that both spouses will die during the early years are so low that you would need a very large simulation for that event to show up. The 1,000-trial simulations used in Figure 12 don't capture every possible outcome, but they do capture the important ones.
6. Economists call this *stochastic dominance*, or more accurately, first-degree stochastic dominance. The simple premise is that people prefer more money to less. With more information about an individual's level of risk aversion, you can use second-degree stochastic dominance to make a decision among alternatives with overlapping probability distributions. Note that distribution graphs like Figure 12 don't tell you what percent of the time one alternative is better than another, because it's unlikely that the two sets of ranked outcomes will also correspond to the same combinations of two deaths. To determine this percentage, you need to do another simulation using the difference in outcomes for all possible events.

7. Possible risk measures include the range of results, variance (or standard deviation), the probability of incurring a present-value loss, and below-target variance. For a long-overdue critique of traditional estate planning, see Ronald R. Crabb, "Probabilistic Estate Planning," *Financial Services Review*, Vol. 1, No. 2, 1991/1992.
8. Lee Slavutin, "Life Insurance Company Ratings — How Reliable Is A.M. Best?", *CCH Financial and Estate Planning*, August 1991.
9. See Glenn S. Daily, "Insurance Products: How Reliable Are Policy Illustrations?", *AII Journal*, January 1991. Whereas illustrations are of limited use in finding superior products, they're quite good for avoiding inferior ones. In the past, most companies that projected poor performance weren't kidding.
10. To be precise, for a typical block of agent-sold policies, the expected present value of all distribution costs is 15 to 25% of the expected present value of premiums, taking account of deaths and surrenders.

LIFE INSURANCE ADVISER DISCLOSURE FORM

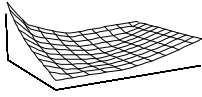
Adviser: _____ Product: _____

- How do you get paid (fees, commissions, both)?
- How are fees determined (hourly rate, fixed, percentage)?
- What services do you offer?
- How long have you been providing insurance advice?
- What is your professional and educational background?
- Have you ever been disciplined by a regulatory or professional organization?
- Indicate below the types of compensation you will receive for your services, with estimated amounts when applicable:

Type of Compensation	Amount
Fees: Hourly Fixed % of _____ Other	
Commissions and overrides: First year Renewal years	
Expense allowances: First year Renewal years	
Sales conventions	
Other sales prizes	
Other benefits:	

Adviser's signature

Date



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BIOGRAPHY

Glenn S. Daily is one of the few fee-only insurance consultants in the U.S. He provides consulting services to individuals, businesses, trustees, and other advisers, and specializes in life insurance and annuities. Compensation is strictly on a fee basis. No commissions or other payments are received from agents or insurance companies for clients' purchases.

Mr. Daily is the author of *The Individual Investor's Guide to Low-Load Insurance Products* (1990), *Life Insurance Sense and Nonsense* (1992), the life insurance and annuity chapters in *The Encyclopedia of Investments*, and many articles in the *AII Journal*, the *Journal of Financial Planning*, *NAPFA Advisor*, and other publications. In 1994, *Life Insurance Sense and Nonsense* was nominated for a prestigious Elizur Wright award by the American Risk and Insurance Association, the nation's largest organization of insurance professors.

Mr. Daily is a regular source for national publications, including *The Wall Street Journal*, *The New York Times*, *The Washington Post*, *USA Today*, *Newsweek*, *Forbes*, *Fortune*, *Money*, *Kiplinger's Personal Finance*, *Bloomberg Personal*, and *Smart Money*. He is an editorial consultant to *Bottom Line Personal* and *Medical Economics*, and he provided much of the material about life insurance in *Marshall Loeb's Lifetime Financial Strategies*, published in 1996. He has been a speaker at professional meetings of financial planners, accountants, attorneys, and actuaries.

Prior to starting his own firm, Mr. Daily was a financial analyst at General Electric, a fee-only financial planner at Enright Financial Advisors, and an insurance analyst at Seidman Financial Services.

Mr. Daily is a Certified Financial Planner, a Chartered Life Underwriter, a New York-licensed Life Insurance Consultant, and a graduate of Princeton University.

2004 Update

I published *Life Insurance Sense and Nonsense* in December 1992, and the information that it contains remains just as relevant today. In the 1990s, the life insurance industry's image was tarnished by a wave of lawsuits alleging deception, and more lawsuits are possible. This is no surprise to those of us who regularly offer advice on insurance matters. We see deceptive sales practices frequently. Fortunately, most of the problems that people have with life insurance can be avoided by following the prudent investor's maxim to "investigate before you invest." With a few hours of work, you can greatly reduce the risk of making decisions that you'll regret later.

Here are some additional comments, by chapter:

The Types of Life Insurance No new types have emerged since 1992, but variable universal life and universal life with no-lapse guarantees have become more popular. Viatical and lifetime settlements and accelerated death benefits are now more widely accepted, and the tax treatment was clarified in 1996.

Is Life Insurance Magic? In the years since 1992, I have expanded the analysis of single-life vs. second-to-die policies to take account of different estate planning strategies. Because of the progressive estate tax rate structure, the financial advantage of second-to-die policies is partially offset by the higher tax liability at the second death. For a discussion, see "A Preview of Estate Planning in the 21st Century," *Contingencies*, July/August 1995 (available at www.glenndaily.com).

How to Shop for Life Insurance In December 1995, the National Association of Insurance Commissioners approved a model regulation governing sales illustrations. Although loopholes remain, this should end the worst illustration abuses; in particular, products that make extreme use of lapse-supported pricing should disappear. Some companies offer cash value policies with relatively low premiums guaranteed for 40 years or more. These policies are worth considering, but they are controversial and you need to understand the risks.

It is even more difficult to do life insurance product due diligence in 2004 than it was in 1992. The Illustration Questionnaire created and promoted by the Society of Financial Service Professionals (formerly the American Society of CLU & ChFC) did not receive support from life insurance companies, and it is no longer in use. The A.M. Best Company no longer publishes surveys of historical performance. The supplements to Schedule M and Exhibit 8 of the statutory annual statement are now consolidated as an attachment to Exhibit 5.

During the next few years, individual states will be adopting the 2001 Commissioners Standard Ordinary (CSO) mortality table as the basis for determining life insurance reserves, and this will have both good and bad effects on cash value policies. You should keep this development in mind as you go shopping.

Low-load life insurance policies continue to offer compelling advantages over traditional agent-sold products with high upfront commissions. The importance of high immediate cash values is supported by recent research in using option pricing theory to quantify the value of flexibility. For a discussion, see "Beyond put and calls: Option pricing as a powerful tool in decision-making," *The Actuary*, March 1996 (available at www.glenndaily.com).

Concerns that blended designs might be treated as modified endowment contracts (p. 34) have abated with the publication of three IRS private letter rulings (9513015, 9519023, 9741046).

Commission rebating in California suffered a blow in 1993 when an administrative law judge ruled that insurers had the right to terminate agents who offered rebates. However, rebating still continues on a limited scale in both California and Florida.

Variable life policyholders who have grievances may find that their ability to obtain redress in the courts has been severely damaged by the Securities Litigation Uniform Standards Act of 1998, also known as SLUSA. For an excellent discussion, see the October 2001 issue of *The Insurance Forum* (www.theinsuranceforum.com).

When life insurance is purchased from an agent, some sophisticated buyers and their advisers are now requesting a service contract that spells out the agent's responsibilities after the sale, with appropriate penalties for nonperformance. A sample contract is available at www.glenndaily.com/service.htm.