



1996

A Different Approach to Term vs. Whole Life Insurance

Neil Rubenstein '96
Illinois Wesleyan University

Follow this and additional works at: https://digitalcommons.iwu.edu/busadmin_honproj



Part of the [Business Commons](#)

Recommended Citation

Rubenstein '96, Neil, "A Different Approach to Term vs. Whole Life Insurance" (1996).
Honors Projects. 9.
https://digitalcommons.iwu.edu/busadmin_honproj/9

This Article is protected by copyright and/or related rights. It has been brought to you by Digital Commons @ IWU with permission from the rights-holder(s). You are free to use this material in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/ or on the work itself. This material has been accepted for inclusion by faculty at Illinois Wesleyan University. For more information, please contact digitalcommons@iwu.edu.

©Copyright is owned by the author of this document.

A Different Approach to Term vs. Whole Life Insurance

Researched by: Neil Rubenstein
Professor David Russell (Advisor)
Dr. Frederick Hoyt (Committee member)
Dr. Zhenhu Jin (Committee member)
Dr. Pamela Lowry (Committee member)

Term vs. Whole Life Insurance

"For more than 20 years, Philip Wilmot, plunked money each month in a whole-life insurance policy, hoping he could tap into what would become a huge nest egg by the time he retired.

"But four years ago, a friend looked over Wilmot's \$200,000 policy and delivered some startling news: The insurance company was making a bigger profit on Wilmot's money than Wilmot was.

"So he cashed in the whole life policy at age 45. The payment: \$16,000.

"Today Wilmot is paying \$58 a month for \$100,000 term policy and invests \$150 a month that he used to spend on insurance in three mutual funds." (Stanton, 1993)

Is this scenario the norm or exception? Are there benefits to the extra cost of whole-life insurance? How much does one need to earn when "investing the difference" to justify the extra risk entailed in purchasing term life insurance?

This is study comparing term to whole life insurance. These two life insurance vehicles will be compared using the after-tax dollar figure of the surrender value or death benefit (for the whole life policy) and the total after-tax value of the "difference" and/or death benefit (for the term life insurance policy). These comparisons are not intended to be used to extrapolate the average rate of return needed in the future to justify the extra risk inherent in term life insurance. The nominal rates of return are merely used to illustrate the comparability of the "buy term and invest the difference" strategy to whole life insurance from 1975 to

1994. If there had been a different inflation and/or interest rate during the years used in this project simulation, the resulting nominal rates of return would have been different.

This study is in response to a number of one-sided research articles and statements claiming that one type of insurance product is better than another under any circumstances. Some examples of pro-term life insurance information are :

Russ Stanton's August 1993 article in the *Chicago Tribune*. Stanton seems to prove that all a policyholder needs to earn is 8% on the invested "difference" to be a better value than whole life insurance. Guy Halverson of the *Christian Science Monitor* writes that "too many people take out whole life insurance instead of cheaper term life insurance." The problem with much of these statements are that they are hasty generalizations based on incomplete or inconclusive data. Stanton focuses on how expensive a whole life insurance premium is compared to a term premium but neglects the fact that by "investing the difference" the cost to the policyholder for either policy is the same.

Many advocates of whole life insurance do not even back their statements with research. They just resort to name calling to attempt to prove their point. Shelley Lee's article in the *Business Atlanta* has some examples of this. Sellers of cash-value insurance, according to Lee, call term life insurance the "grand delusion" because agents who sell term often deceive prospective clients about the potential returns and benefits of term life insurance. They even label some sellers of term life insurance as "scourges" to the life insurance industry. However, some advocates of term respond by saying cash-value life insurance is actually "trash value" life insurance.

Let us look at the nature of these two types of insurance policies.

Term Life Insurance

A majority of heads of households are covered by life insurance, either through personal or company plans. About 366 million insurance policies were in effect at the end of 1994. According to the American Council of Life Insurance these policies totaled \$12 trillion of life insurance in force. (Halverson, 1995)

Term life insurance is purchased for a specific period term, usually one, five, or ten years and if the insured dies during the term the death benefit is paid to the beneficiary. At the end of the period, the policy expires. The policy is then renewed or a new one is purchased. Annual renewable term life insurance starts with a low premium, increases every year, and is automatically renewable. However, level premium term life insurance guarantees a premium for ten, fifteen, or twenty years before dramatically increasing upon renewal. This presumes that the insured does not become an unacceptably high risk on the basis of health or age.

An important piece of information to note when choosing a specific type of life insurance is that a policyholder always pays term insurance premiums with after-tax dollars. For example, a \$3,000 term insurance premium that provides \$250,000 of coverage at age 60 would require before tax earnings of \$4,166 for a person in the 28% income tax bracket. (Hansen, 1995)

The idea behind term life insurance is that as the mortality cost increases with the insured's age, the premium increases as well. This is because the probability of death increases with age.

Whole Life Insurance

If an insured needs coverage for more than twenty years, a whole life policy might be more appropriate than term. A general rule of thumb is that an insured needs to hold a whole life insurance policy for a minimum of twelve years to be cost effective. The reason for this is that a whole life policy is considered permanent insurance. The insured is guaranteed a death benefit under most circumstances, and the premium is fixed as long as the policy is in force. However, the fixed premium rate is generally five times as high as a term policy of similar death benefit. This is because the premium for a whole life insurance policy, over time, establishes a cash-value that is liquidated to keep the premium at a constant level even while mortality charges increase with age. Initially much of the premium goes towards commissions, marketing, overhead, etc. and really does not start building cash-value until after the first four years. The cash-value is usually invested in the insurance company's general account which earns a return directly related to the investments of the insurer. Some of the newer types of whole life insurance allow the insured to choose the investment vehicles for the cash-value. For basic whole life insurance, upon death of the insured, the beneficiary receives only the death benefit and the cash-value remains with the insurer. However, some whole life policies allow the beneficiary to participate in the reserve or cash-value as well as the profits of the insurance company. Regardless, the policy owner may borrow money against the amount in the cash-value or can cash in the policy for the surrender value of the policy minus any outstanding loans. If the policy owner surrenders the policy within the first five to ten years the insurance company will generally charge a stiff surrender charge. These charges help the insurance

company recoup some of the expenses, such as commissions, incurred in extending a whole life policy initially . If an insured were to surrender a policy after holding it for a short period of time, the insurance company would face investment risks associated with selling long-term securities on short notice. (Damato, 1995), (Tosto, 1995), (Stanton, 1993)

Buying Term and Investing the Difference

Because whole life insurance costs substantially more than term life insurance for the same level of protection, some experts advise their clients to purchase term life insurance and invest the difference they would have paid towards the whole life policy. This strategy is referred to as "buying term and investing the difference" (**BTID**). As the insured pursues **BTID**, a substantial nest egg should accumulate. This nest egg should enable the insured to renew the term policy with a lower death benefit or fund the higher premium if the same death benefit is maintained. In any case, the insured should still have money in his/her nest egg in case of premature death or becoming an uninsurable risk. A decreasing death benefit with an older insured should allow the insured either to decrease or maintain the level of the initial premium of the term policy by ultimately decreasing the amount of coverage.

Project Purpose

The purpose of this project is to show that term and whole life insurance both have places in the life insurance market. I test the hypothesis that no single insurance product is right for everyone. Many insurance companies will tell prospective clients that whole life is the only real life insurance to consider. On the other hand, there is a growing

number of single-line term life insurance companies that claim the other insurance companies are not giving all the information to their customers. I believe my research will show that neither of these claims are entirely true. Both term and whole life insurance have their merits as well as their pitfalls that ultimately must be taken into consideration before a decision is made by the insured.

Term Life Insurance Background Information

The need for life insurance typically declines as children grow up and become independent. As dependents move away, the need to support family members declines. As other savings and investments gradually grow into a satisfactory estate, the need for life insurance declines as well. In effect, increased wealth allows people to self insure.

When term life insurance is purchased, an "invest the difference" strategy often accompanies it. This strategy implies that the insured invests the money saved by not purchasing a whole life insurance policy into some other type of investment vehicle preferably a mutual fund. The idea is that the insured will earn a higher return than the cash-value of a whole life policy and pay less for the policy itself because term life insurance is inherently less expensive. The phrase "buy term and invest the difference" has become so popular in recent years because the life insurance industry has practically abandoned its emphasis on the fundamental objective of life insurance: the death benefit. The very nature of life insurance is to provide income for your dependents if you die prematurely. However, the new life insurance vehicles like universal life as well as "investing the difference" from term life insurance, to an extent, concentrate more on investment benefits. These types of life

insurance policies are sold primarily based on the fact that the need for life insurance declines as retirement approaches. By the same reasoning, the need for retirement income increases as retirement draws nearer. Even though a **BTID** strategy is implemented on the basis of providing retirement income, a cash-value policy can provide retirement income for the insured as well. The insured can surrender the policy at some point when cash is needed or just take out a loan secured by the cash-value the policy had earned thus far. (Scully, 1994)

Arthur Lynch Williams is credited with initiating the dramatic increase in term life insurance sales in the 1980's. Williams was a high school coach from Columbus, Georgia. He decided to disregard the gentlemen's agreement of the insurance industry not to raid another company's customers and in-force policies. Williams had more than 200,000 people working for A. L. Williams insurance Company at its peak in 1990. (Lee, 1993)

Williams' philosophy of "buying term and investing the difference" was (and still is) based on the simplicity of unbundled term products. Although many large insurance companies carry term in their product lines, it is not widely sold. Term sales, although increasing, account for only 22% of insurance sales based on premiums. This is primarily because the insurance industry still has not accepted term life insurance as viable, profit generating product. Defenders of term life insurance would claim this is because term does not provide the same large up front commission that whole life insurance sales generate. Therefore, term advocates would claim that sellers of whole life insurance are not giving potential customers all the facts in order to make an intelligent decision

about which product to choose. They are just trying to sell the product that earns them the highest commission. (Lee, 1993)

98% of all term policies never result in a payoff; people let them lapse, expire, or the issuing companies go out business. Much of this stems from the lack of customer focus from the current providers of term life insurance. Many insurance agents do not spend the time with the policy owner to make sure the policy is renewed and does not lapse. The policy does not generate enough profit to warrant the extra time needed to create a good relationship with the customer. This is the reasoning many insurance companies, that advocate whole life insurance, use when it comes to term life. The cash-value policy, on the other hand, generates a substantial initial commission based the higher premium. (Lee, 1993)

Term products generally offer more flexibility than do whole life products-lower premiums in the early years when income replacement and protection needs of spouse and children are greatest. This flexibility requires that there be higher premiums in later years when insurance needs decline and an estate has been accumulated. Term's defenders maintain insurance companies too frequently sell whole life to young people who cannot save by their own discipline by stressing the forced savings element. \$3,000 a year for a \$500,000 whole life policy is an expensive commitment for a 30 year old who has two young children, a new mortgage, and cannot afford to fully fund a 401(k) plan. (Lee, 1993)

If a whole life insurance policy is dropped after only 3 years (as 1/3 of whole life policies are) the buyer has nothing to show for it; surrender charges are stiff and the cash-value is generally less than premiums for a minimum of 7 years. Advocates of term claim that term is neither an

investment nor a gamble won only by dying. Term is pure life insurance protection, a "cost of living". (Lee, 1993)

When Williams sold his Atlanta-based company and its army of "termites" to Primerica Corporation in 1983 because he became the target of investigation by the U.S. attorney in Jacksonville, Florida, for conspiracy to undermine a competitor's business, many in the industry wondered if Primerica, a New York-based financial services conglomerate, would attempt to mainstream the company by following the lead of the rest of the insurance industry and sell whole life over term life insurance. This was not the case. (Wright, 1993), (Lee, 1993)

Primerica Financial Services (PFS) is still the nation's largest issuer of term life insurance and the second largest of all insurance companies after Prudential as measured by policy face amount. Primerica has led the industry in eight of the past 11 years in selling the most individual term insurance policies, earning the nickname "king of term." Primerica Financial Services collected more than \$187 million in premiums in 1992, sold more than \$46 billion in face amount of insurance, and had more than \$3 billion under management in a proprietary mutual fund family. (Higginbotham, 1996), (Lee, 1993), (Wright, 1993)

Primerica works much like Amway, using a multi-level marketing strategy to increase sales. By selling policies and recruiting other salespeople who do the same, a Primerica salesperson can earn more and be promoted to the position of Regional Vice President. This strategy has resulted in a nationwide "termite" sales force of more than 100,000 people. (Wright, 1993)

While A.L. Williams' organization sold millions of term policies, the rest of the industry responded with products such as universal and

variable life insurance. This has led to increased competition within the insurance industry as a whole which has been reflected in lower premiums for people considering the purchase of a life insurance policy. Universal life proved to be particularly popular during the high interest rate climate of the early to mid-1980's. But as many holders of CD's learned, returns plummeted as interest rates plunged. Compounding this were investment portfolios loaded with junk bonds, speculative real estate, and the high-profile failure and seizure of some large companies. By contrast, the PFS' products have no return or cash-value because PFS sells only term life products which do not provide a cash-value savings element. However, its investment portfolio, according to Standard and Poors, is pristine. (Lee, 1993)

"Investing the difference" may sound good in theory but many consumers spend the difference. The average American saves less than 5% of his/her income per year. Primerica's own statistics on the number of accounts its customers have in both their proprietary mutual-fund family and non-proprietary funds also offered by its agents indicate only between 40% and 50% of PFS policyholders invest the difference. However, PFS cannot track customers who may invest outside the PFS family of funds. (Lee, 1993), (Kiplinger, 1994)

Level term products are available from most companies that sell Annual Renewable Term (ART) policies. The basic difference between ART and level premium term is that the premium for level term remains constant for a predetermined period of time. After the five, ten, or twenty year policy period expires, the policy owner has the option to renew the contract. However, the mortality costs that were not added into the cost of the insurance premium initially will have to be added upon

renewal. This will cause the new premium to be extremely high because the chance of the policy owner dying would be much greater than it was when the policy was first purchased. The advantage to the company is improved persistency because policyholders do not face an increased premium each year. As a result, policyholders are more likely to pay the renewal premium. The advantage to the agent is higher commissions for the higher first year level term premium. (Gold, 1994)

The National Association of Insurance Commissioners (NAIC) approved a model regulation that would require many insurance companies to set aside larger reserves when they make long-term rate promises. Level term policies are an ideal choice for some insurance buyers who know their need will end at a particular point of time. If the guarantee period exceeds the insured's need, the premium is locked in at a reasonable rate. However, if the policyholder wants to continue coverage beyond the initial guarantee period the premium will go up dramatically. Many insurers require a medical exam in order to continue coverage at a favorable rate, otherwise the premium rate goes up even more. A good example is a 40 year old man buying a \$250,000 10 year level term policy from North American Company. The rate is guaranteed at \$330 for the first 10 years. The rate is projected to increase to \$633 for the second decade assuming the insured reenters with a medical exam. Without the exam, the premium will increase each year starting at a projected rate of \$1,145 in year 11 and rising to \$2,683 in year 20. (Damato, 1995)

Once new reserve rules take effect, many insurers will probably sell policies on which premiums are projected to be level for 10, 15, or 20 years but are only guaranteed for the first five. (Damato, 1995)

Whole Life Insurance Background Information

Life insurance is purchased to provide for the beneficiaries of the insured in case of premature death. The death benefit of the insurance policy is supposed to help the beneficiaries maintain their standard of living after the insured passes away. Some people use insurance policies to help with business or estate planning.

With income tax rates up to 39.6%, the search for investments with tax-free features increases. The tax benefits of the cash value of whole life insurance products can be considerable for insureds. (Kiplinger, 1994)

A cash-value policy initially builds value from premium payments made in excess of insurance costs of the policy. The policy also applies the pre-tax interest earned on the cash-value to the cost of current insurance protection, then adds the remaining balance to the cash-value. As the cash-value increases, it approaches the policy's death benefit. (Hansen, 1995)

Under the whole life insurance contract, the insured pays specified premiums at predetermined levels. After the insurance company issues the contract, the insured cannot change the annual premium or death benefit. With whole life policies, the insurance company credits earnings and imposes charges for current insurance protection. The insurance company does not show the earnings on the cash value or the expenses for current death benefit coverage. These earnings and expenses are implicit in the amount of policy dividends paid as additional paid-up insurance. In a participating whole life policy, the insurance company allows the policy owner to participate in the profits of the insurance company. The insurance company may distribute dividends in the form of cash, additions

to the cash-value, and/or additional insurance called paid-up additions. Whole life policies can result in larger death benefit accumulations due to payment of dividends as paid-up insurance. (Hansen, 1995)

One of the benefits of a whole life insurance policy is that the policy owner can take out a tax-free loan secured by the cash-value. Although interest is payable on the amount borrowed, the failure to pay interest will not result in the policyholder's default. The insurance company adds the unpaid interest to the principal of the loan unless the total of the debt exceeds the policy's cash-value. (Hansen, 1995)

The policyholder incurs a minimal interest expense with this type of loan because the cash value used as collateral continues to earn interest. The policyholder's cost of borrowing equals the difference between the interest payable on the loan and the interest credited to the cash value. If a policy provides a 2% net interest cost, the loan would incur interest charges of 2% above interest paid on the cash value. If the cash value earned 7%, the interest payable on the loan would be 9%. (Hansen, 1995)

Some insurance companies allow policyholders who are terminally ill to receive insurance benefits before death. If the insured is expected to die within 12 months, proposed regulations allow payments of the death benefit before death without any income tax liability to the recipient. These proposed IRS regulations recognize that the terminally ill need insurance proceeds to pay medical and living expenses prior to death. (Hansen, 1995)

By the end of 1992, sales of traditional whole life insurance policies were flat, and the 50 largest life insurers saw the percentage of troubled real-estate assets continue to climb from 13% in 1991 to 16% in 1992 of all real-estate holdings. Consolidation came to many large multi-

line insurers as rivals like Geico and USAA used direct-to-consumers toll-free calling and credit cards sales. They also saw rivals like single-line A.L. Williams/Primerica Financial Services continue to take their business. Some insurance companies have seen whole life insurance sales slip significantly in the last decade. Others have revamped their line of whole life insurance products and increased sales. This has resulted in flat sales for the industry as a whole. (Haggerty, 1995), (Lee, 1993)

Mass Mutual has been concentrating on promoting needs-based products that attempt to cover the entire spectrum of whole life insurance needs. Mass Mutual, for example, revamped its traditional whole life insurance product beginning in March of 1994. Its new Advantage series addresses the growing population of over age 55 clients who need strong estate planning tools, small businesses that need wealth transfers and business and business succession tools, and the needs of young families with limited budgets who require high amounts of life insurance protection at affordable prices. (Haggerty, 1995)

The new whole life insurance products include one with a premium that is lower the first five years with a minimum face amount of \$500,000. It is targeted at the estate planning market where people are looking for low initial premiums with the understanding that their ability to pay will improve. (Haggerty, 1995)

John Hancock has maintained its whole life portfolio for the past several years, but it has added riders that make the policies more flexible in controlling the death benefit and premium patterns. Death benefit flexibility can be used by firms which pay the premiums for the employees and want to recover the premium when a death occurs. (Haggerty, 1995)

However, pure whole life insurance policies are not completely risk-free. A realistic example of this would be a couple who purchased a second-to-die whole life policy from a large, highly rated mutual company. A second-to-die policy only provides a death benefit after the second person on the policy passes away. The \$1 million plan was projected to vanish in 10 years on annual premiums of about \$10,000. This means that after 10 years, the premiums were predicted to be funded by current dividends and the liquidating of paid-up additions of life insurance. Eight years later, the 10 year vanish had turned into a ridiculous 30 years of premium payments. This is not an unusual scenario with some whole life policies. (Nisbett, 1995)

Most whole life policies have experienced increased vanish periods as a result of lower than expected investment income. But the effect of attaching non-guaranteed term riders to these policies multiplies the problem immensely. Term riders are extra term life insurance that are added to the initial whole policy. However, these term policies are supposed to be paid by future dividends on the existing cash-value. When the original vanishing premium concept was introduced participating policies were mostly 100% whole life policies projected to vanish in 17 to 19 years. The trend is toward more term blended contracts which provide less guarantees than a straight whole life policy. (Nisbett, 1995)

Increased competition from universal life and the trend to sell premiums and not benefits are the reasons many mutual companies offer flexible, non-guaranteed term riders on top of their whole life policies. The insurance companies offer the policy owner the option of purchasing additional life insurance for a limited period of time in the form of a term rider. A policy owner may feel that he/she needs additional insurance on a

limited basis for one reason or another. The premiums for these non-guaranteed term riders are paid by future dividends, and the balance, if any, is used to purchase paid-up additions of whole life insurance.

(Nisbett, 1995)

The more non-guaranteed term riders that are mixed with whole life policies, the more dividend sensitive the contract becomes. Then, if the insurer reduces the dividend scale, possibly due to the lower interest rate environment, the insured may be in trouble. (Nisbett, 1995)

Since most term rates are only guaranteed for one year and dividends are not guaranteed, an element of risk is added to the policy. If the insured accepts this risk, then some insurance companies advocate using universal life because of its greater flexibility in premium payments, more favorable loan provisions, and sometimes an attractive guaranteed death benefit period of up to 40 years. (Nisbett, 1995)

Adding to this problem is that, back in the late 1970's and during the 1980's, many stock companies adopted the "quick and liquid" philosophy of investing and generated extremely high, short-term rates of return. Most mutual companies kept the "strong and long" philosophy. However, the higher yielding long term bonds purchased in 1980 are now maturing. Even though interest rates have leveled off or increased slightly, the higher investment yields from the past are being replaced by new, lower yielding bonds. This may result in the further deterioration of dividends. (Nisbett, 1995)

Comparison of Term to Whole Life Insurance

Term issued and in force compared to whole issued and in force indicates that the balance is in favor of whole. Whole issued changed

from 52% to 54% of the total issued, and whole in force changed from 55% to 54%. This may be based partly on low premium whole life and universal life policies containing significant term portions and little or no cash-value. (Gold, 1994)

For anyone stretching his/her budget to buy insurance, term is the best choice. It just does not seem wise to spend limited resources on a \$50,000 whole life policy when \$250,000 of coverage is needed. (Davis, 1994)

This makes PFS' middle income customers prime candidates for the **BTID** strategy. The average age of a PFS customer is 35 with an annual household income under \$50,000. Young parents often need large amounts of insurance and few can spare the \$3,000 or so a year it would take to fund a \$250,000 cash-value policy. (Davis, 1994)

Even if buying a whole-life policy was a mistake in the first place getting out too soon could be a worse move. Give up the policy too soon and the insured forfeits the stiff up-front expenses paid as well as the long-term tax benefits that were probably the reason for buying the policy in the first place. (Davis, 1994)

Northwestern Mutual is the insurance company I used to provide the whole life insurance policy to compare to the **BTID** strategy in this project. Northwestern Mutual is a large mutual life insurance company based in Milwaukee with total admitted assets of \$53.2 billion and adjusted surplus of \$4.4 billion as of September 30, 1995. The company provides life insurance, disability insurance, and both fixed and variable annuities. Northwestern Mutual's market niche is low cost, high quality products to the personal and advanced market which consists of closely held companies, professionals, and estate planning. (*PR Newswire*, 1996)

Duff and Phelps Credit Rating Company recently renewed its AAA rating of Northwestern Mutual, the highest rating available. Duff and Phelps singled out the firm's lower-than-average mortality experience indicative of strong underwriting. Duff and Phelps also noted its long-term total return investment philosophy and the high persistency of its policyholders. Company figures indicate that only about 4% of all Northwestern Mutual policyholders let their policies lapse. (Olsen, 1996)

The National Insurance Consumer Organization (NICO) analyzed a \$100,000 whole life policy from Northwestern Mutual Life to see how much someone would have to earn under a **BTID** scenario to match the earnings of the whole life policy. NICO found that an owner who bailed out after five years would have needed to earn just 3.6% after taxes on the "difference" to come out ahead. Over ten years, the same policyholder would need to earn more than 7% to come out ahead and over 15 years 8%. In fact for a whole life policy to average 8% over 15 years, it has to earn a far higher rate than that in the later years to make up for the low rate in the early years. Most experts would claim that the worst time to surrender a whole life policy is in the early years when the surrender penalties are stiff and the cash value has not really started to accumulate yet. (Davis, 1994)

The money PFS policyholders save by buying term, as well as any cash value they get when they replace another policy, often ends up in Primerica's family of mutual funds, the Common Sense funds. The growth and growth/income funds have provided respectable annual average returns of 9.7% and 8.5% respectively over five years. In both cases, this is about average for funds with similar objective. However, these funds carry 8.5% front-end sales loads, the highest allowed by law. The five

year average annual return adjusted to reflect the sales loads dropped to 7.7% and 6.6%. (Davis, 1994)

These loads are another reason policyholders need to be careful when rolling over an existing whole life policy into a **BTID** plan. When the initial transaction is finished 8% of the money could be spent right away due to sales fees. The rest is invested in potentially risky mutual funds. (Davis, 1994)

Mutual Funds

A mutual fund is a company that invests on behalf of individuals and/or institutions with similar financial goals. By combining the financial resources of thousands of shareholders, mutual fund investors all realize the same benefit: professional management, diversified ownership in the securities market, and a variety of services not otherwise available to most individuals. (*Mutual Fund Fact Book*, 1995)

The mutual fund industry acts as an important bridge between investors and security issuers. It helps millions of mutual fund shareholders reach their investment goals, while assisting U.S. economic growth through participation in the debt and equity markets. Over the past dozen years, it has grown into the nation's second largest financial intermediary with \$2.16 trillion in assets. (*Mutual Fund Fact Book*, 1995)

Since 1940, when Congress enacted the Investment Company Act, the mutual fund industry has grown from 68 funds to over 5000 funds and increased from \$448 million to about \$2.2 trillion. Mutual funds have developed into an important investment vehicle for U.S. investors serving more than 38 million individual investors and representing 31% of all U.S. households. (*Mutual Fund Fact Book*, 1995)

Money managers select securities (stocks, bonds, etc.) that meet their fund's investment objectives. Investment objectives are usually described in terms of one or more main goals. These may include growth, income, stability, or some combination thereof. (*Mutual Fund Fact Book*, 1995)

Mutual funds make money for shareholders three basic ways. First, if the value of the securities held by the fund increase, then the value of the fund's entire portfolio increases as well. Second, mutual funds may pay dividends to shareholders. For example if a fund's objective is current income, it will invest in stocks and bonds expected to produce current dividends or interest. The fund then distributes these earnings to its shareholders as dividends. Third, if a fund manager sells a security that has increased in value, shareholders will have realized a capital gain and will receive a distribution. Shareholders may choose to reinvest dividends and capital gains in the purchase of additional fund shares. (*Mutual Fund Fact Book*, 1995)

Under the Internal Revenue code, mutual funds that meet certain requirements serve as conduits through which the income and gains earned from underlying securities pass through to shareholders without any tax due from the mutual fund itself. Any income and capital gains, by law, are also passed on to the fund's shareholders. Mutual funds, unlike bank depositories, are not insured or guaranteed by the Federal Depository Insurance Corporation. Mutual funds involve investment risk, including the possible loss of principal. (*Mutual Fund Fact Book*, 1995)

The Internal Revenue Code of 1986 states that mutual fund shareholders are generally taxed as if they were direct owners of a proportionate interest in the fund's portfolio of securities. Unlike must

corporations, a fund's income is generally taxed only once--when it is received by the shareholders. This pass-through tax treatment of income and capital gains is only available to funds that qualify as regulated investment companies under Subchapter M of the Internal Revenue Code. (Svare, 1992), (*Mutual Fund Fact Book*, 1995)

A fund must meet several Subchapter M requirements, including the distribution of 90% of its investment income per year as well as following various rules of asset diversification. A fund also must receive less than 30% of its gross income from the sale of securities held less than three months. This one-level tax results from the deductions that funds receive for amounts distributed to shareholders. In addition, to avoid the imposition of an additional excise tax, a fund generally distributes 98% of its income in the calendar year in which the income is earned. (*Mutual Fund Fact Book*, 1995)

Shifts in the distribution of mutual fund assets that began in the early 1980's have continued in to the 1990's. In 1982 and earlier, assets were heavily concentrated in money market mutual funds as a result of rising interest rates, low stock prices, and a recession. By 1984, the percentage of assets in money market funds began to decline. In 1984, taxable money market funds represented 56.6% of all mutual fund assets down from 69.6% in 1982. Equity funds represented 22.4% of all fund assets in 1984, bond and income funds were 14.6%, and tax-exempt money market funds were 6.4%. By the end of 1994, almost 75% of mutual fund assets were invested in long-term funds. (*Mutual Fund Fact Book*, 1995)

Methodology

The whole life insurance policy I chose to use was from Northwestern Mutual Life Insurance. Northwestern Mutual Life is a well respected, conservative insurance company. It is highly rated by the rating companies such as Duff and Phelps and has a reputation of being a low cost provider of life insurance. The policy used was the Select 100 preferred/nonsmoker participating whole life policy. The death benefit was initially \$100,000, and the insured was a 35 year old male. The premium payments were projected to disappear in 10 years from the time of the contract date. After 10 years, the premiums would be funded by current dividends and the liquidation of paid-up additions.

The term life insurance policy was from The Travelers Insurance. The reason Travelers was chosen was because of its association with Primerica Financial Services, the dominant term provider in the industry. Primerica Financial Services bought The Travelers Insurance Company in 1993 and adopted its name. A \$100,000 ART policy was used for the simulation in this project. The insured was, once again, a 35 year old male who qualified for the preferred/nonsmoker discount. The policy was guaranteed renewable to age 75. This policy was also convertible to some type of permanent policy until age 65.

In this project, a hypothetical term life policy was purchased from Travelers Insurance and the money saved from not buying the whole life policy from Northwestern Mutual was invested separately. The "difference" was invested using six different strategies over a 20 year period. These six strategies represent a range of risk choices. For the ultra-conservative investor, the "difference" was invested in 91 day Treasury Bills. In order to portray a person who knows the benefits of

owning a diverse portfolio of stock, the money saved was invested in the S&P 500 by way of a mutual fund. This mutual fund would mirror the S&P 500 by owning all the stocks in the index in the same percentages as the actual S&P 500. Any time a new stock is added to the actual S&P 500, the same change must be made to the respective mutual fund.

For the remaining four investments, 20 year annual returns were unavailable. As a result, it was assumed that the insured would be very risk averse for the first ten years of the policy. This means the insured would invest the "difference" in 91 day Treasury Bills which are risk free for all practical purposes. For the second ten years, the insured would re-evaluate the rate of return and shift the savings into various mutual funds. It is assumed that the policy owner has the knowledge and ability to make such a drastic change in his/her savings. If the returns had been available for all twenty years for the various mutual funds, the portfolio values would have been higher as well. This would have affected the final results of the simulation in this project.

The first fund is an asset allocation or flexible strategy fund. These funds give the money managers the greatest flexibility in anticipating and responding to economic changes. The portfolio could be entirely invested in stocks, bonds, or money markets at any given time depending on market conditions. This type of fund was used to represent the type of investor who is less conservative than a money market investor but is still unwilling to be too dependent on any single income or equity instrument without the ability to change quickly. (*Mutual Fund Fact Book*, 1994)

The second fund used is a balanced fund. This type of fund generally has three investment objectives. First is to conserve the principal of the investor. Next the fund aims to provide current income and finally to

promote long-term growth of principal and income. Balanced funds often have a predetermined mix of stocks, bonds, money markets, and cash. This type of objective is used to represent the type of investor that is less risk averse than the asset allocation investor but is still unwilling to be too heavily invested in any single market. (*Mutual Fund Fact Book*, 1994)

A long-term growth type of fund is also used. This type of fund invests in common stocks of well established companies. This fund's goal is capital appreciation over time and not so much dividend or current income. This fund is for people who understand the benefits of being in the stock market but are unwilling to play the market or stray away from established companies. (*Mutual Fund Fact Book*, 1994)

Finally a maximum or aggressive growth strategy is used for the people willing to allow a fund manager to "play" the equity market with their money. The goal of this type of fund is to obtain maximum capital gains over time. Some aggressive funds invest in stocks of businesses somewhat off the mainstream, such as new companies just starting out, new industries, or potential turn-around companies. Some of these funds use various derivative techniques in order to maximize capital gains. (*Mutual Fund Fact Book*, 1994)

The information about the mutual funds average annual returns was obtained from *CDA/Weisenberger Mutual Fund Panorama 1995*. The life insurance policy information was obtained from *Best's Flitcraft Compend Life-Health 1993 Edition*. A 28% tax bracket was assumed for tax purposes. However, results are also provided for a tax-deferred investment strategy through an IRA or annuity as well.

Results

After five years of using a **BTID** strategy the insured would have accumulated \$7,301 by investing in 91 day Treasury Bills and \$8,088 by investing in the S&P 500 adjusted for taxes. Without taxes, investor would have \$7,852 and \$8,458 respectively. This compares to the whole life policy in which the surrender value is only \$4,427, and the death benefit is already over \$100,000. This is because the whole life policy is participating in the earnings of Northwestern Mutual. These earnings are distributed as dividends in the form of paid-up additions of insurance which add to the cash-value of the policy as well. (Refer to *Appendix A--Part 1* for a diagram of the **BTID** strategy. Refer to *Appendix A--Part 2* A, B, & C for diagrams of how pre-tax numbers were adjusted for tax purposes. Refer to *Table 2* for a 20 year summary of capital gains and dividends used in the calculations of the tax adjustments.)

After 10 years of investing in 91 day Treasury Bills, the insured would have accumulated \$17,857 after taxes and \$20,999 before taxes. By investing for 10 years in a mutual fund that followed the S&P 500, the investor would have \$23,306 after taxes and \$25,454 before. The surrender value is only \$14,646 after taxes at this point. (Refer to *Table 1--Part A and C* for a summary of the **BTID** strategy after 5 and 10 years and the surrender value of the whole life policy after 5 and 10 years.)

Table 1 shows that it would not be in the best interest of a policyholder to surrender a whole life policy after 5 or even 10 years. The **BTID** strategy, even by "investing the difference" in 91 day Treasury Bills, shows a higher value than the surrender value of the whole life policy. The surrender charges on the Northwestern Mutual policy are too great

after 5 and 10 years to make the whole life policy competitive with the **BTID** strategy at this point.

The next 10 years are a little more complicated. It is assumed that under the remaining four scenarios, the investor decided to readjust his/her investment objective. The 91 day Treasury Bill value in 1984 was used for all of the second ten year objectives as the beginning balance for 1985 except the S&P 500. After 20 years of investing in just the S&P 500, the accumulation would be \$76,715 adjusted for taxes and \$113,904 without the adjustment. The 91 day Treasury Bills investment would have a value of \$37,381 and \$48,150 without an adjustment for taxes. After investing for the first 10 years in 91 day Treasury Bills and the second 10 years in one of the aforementioned mutual funds, the returns are as follows:

The pre-tax value of the asset allocation fund was \$70,689 and after taxes is was \$50,412. Before taxes the balanced fund total value was \$75,986 and after taxes it decreased to \$54,190. The maximum growth fund would have accumulated \$87,703 before taxes and \$62,443 after taxes. The long-term growth fund would have a value of \$88,970 before taxes and \$63,221 after taxes have been deducted. These values would be compared to the surrender value of the whole life policy after 20 years of \$56,125 before taxes. However, after taxes are taken out of the surrender value over the premiums paid into the policy by the policy owner, the actual surrender value after 20 years would be \$47,975. The death benefit would be \$152,419 after 20 years as well. (Refer to *Table 1--Part B and C* for a summary of the **BTID** strategy after 20 years and the surrender value of the whole life policy after 20 years.)

The average return for the whole life policy over the 20 year period before taxes was 7.12%. The average return before taxes for the various investments over the 20 years were 14.47% for the S&P 500, 7.49% for the 91 day Treasury Bill, 9.28% for the 91 Treasury Bill/asset allocation fund mix, 10.28% for the 91 day Treasury Bill/balanced fund mix, 11.09% for the 91 day Treasury Bill/maximum growth mix, and 11.21% for the 91 day Treasury Bill/long-term growth fund. (Refer to *Table 3* for a 10 and 20 year summary of the geometric mean returns for the 91-day Treasury Bills and mutual funds used in the **BTID** strategy.)

See *Spreadsheets 1 and 2* after the **Works Cited** for data used above.

Conclusions

This research indicates that whole life insurance is a product that works for some people in specific situations. I attempted to use a representative sample of the entire investment strategy spectrum in order to make the **BTID** strategy as viable as possible.

An investor can benefit from the **BTID** strategy under certain circumstances as well. The investor must realize that even though the term policy is cheaper on the surface, it is not necessarily a sure win proposition. For example, if the insured uses a **BTID** strategy and is very conservative, he/she may put the money into a money market fund or 91 day Treasury Bills. The annual return on a money market fund would be very close to the returns on the 91 day Treasury Bills. The return on this type of investment, for the 20 year period from 1975 to 1994, would be only 7.49% before taxes. The value of this investment, after taxes, would be \$37,381. If the ART policy lapsed at age 65, the insured would only have \$37,381 saved for retirement or anything else the money may have

been intended for. If the money had been invested the same way but in an IRA, the value would have been \$48,150. This is only if the current IRA regulations allowed the insured to invest the full "difference" in the fund in the first place. Once payments begin to be withdrawn from an IRA, the payments become taxable too. This money may not be enough to provide for any dependents in case of a premature death. Also the insured may not be insurable anymore if he/she were to reapply for reinstatement. This would leave the person without enough money to cover anything unexpected.

On the other hand, if the whole policy were surrendered after 20 years, the cash value would be \$56,124. This may not be enough to retire comfortably on, but it is more than the **BTID** strategy was worth. Also, this money is non-taxable unless the cash-value is more than the premium payments. In this case, \$27,020 was paid in premiums, so \$29,104 would be taxable at the 28% tax rate in this case. This would leave a surrender value of \$47,975 after taxes. Also, if the policy is not surrendered, the insured can take out a loan against the cash-value. This loan is not considered income unless the policy lapses. This interest on the loan is mainly paid by the interest earned on the remaining cash-value. If the loan is not repaid by the time the insured passes away, the interest payments are added on to the principal which is then subtracted from the death benefit. In this case, the death benefit was \$152,419, and the initial policy taken out was only for \$100,000. The insured may not care if a little of the death benefit were subtracted to cover the loan. Also, if the insured dies while the term policy was in force, the beneficiaries would receive the \$100,000 death benefit plus the \$37,381 that was saved. Even with the forfeiture of the cash-value of the whole life policy,

the beneficiaries would still receive more money and it may be a tax-free transfer as well.

Another aspect of the whole life policy is that the cash-value and paid-up additions were predicted to fund the premiums after year ten of the policy being in force. This means that premium payments would be made with pre-tax dollars and the insured would have to pay only the first ten years of premiums out-of-pocket--\$13,510 not \$27,020. Also, the **BTID** strategy is based on investing the "difference" which means the policy owner will incur the same out-of-pocket expense whether using a **BTID** strategy or buying a whole life policy. This scenario may make the whole life policy very attractive to some people. The insured must also consider how easy it is to qualify for the preferred/nonsmoker rates for a particular insurance company. This could dramatically influence the cost of the insurance policy over the long run.

However, another scenario may make the **BTID** appear far superior to whole life insurance. In this case, the insured invests the "difference" in a mutual fund that mirrors the S&P 500. After 20 years of investing in this fashion, the insured would have accumulated \$113,904 without a tax adjustment and \$76,715 after taxes. If the money is put into an IRA or some other tax-deferred vehicle, the liquidity and regulatory problems discussed above apply again. But, if the insured invests the money in a simple taxable mutual fund, this problem would not exist. If the term policy were allowed to lapse after 20 years, the person would have \$76,715 to apply towards retirement. This would be compared to the surrender value of the whole life policy of \$47,975. The investor would still have the loan options with the whole policy that are not available with the term policy though. However, if the insured died at the end of the

term policy period, the dependents would receive the death benefit of \$100,000 and would still have the savings of \$76,715. If the insured died after 20 years with the whole life policy in force, the dependents would receive the death benefit of \$152,419, but the cash-value would be surrendered to Northwestern Mutual. This scenario also assumes that the insured is persistent about making the regular investments of the "difference" into the mutual fund. The "difference" in this scenario would have earned an average annual return over the 20 year time period of 14.27%. This type of return is possible as the research indicates, but it cannot be expected every period or even over an extended length of time.

Something else to keep in mind when trying to determine whether to purchase term or whole life insurance is that many advocates of the **BTID** strategy claim that an insured should decrease the death benefit of the term policy as retirement approaches and the need to insure premature death declines. This would hypothetically decrease premium payments or at least keep them at about the same level. This seems like it would work, but it is not always plausible. Travelers Insurance, for example, will not write a term life insurance policy for less than \$100,000. As the initial death benefit was only \$100,000 the insured would not be able to decrease the death benefit at all. However, inflation would cause the real value of the death benefit to be less than the initial \$100,000 anyway.

A close to break-even scenario might be using a **BTID** strategy and investing the money in 91 day Treasury Bills for ten years and an asset allocation mutual fund for the second ten years. The combined average annual return from 1975 to 1994 was 9.82% before taxes. This would produce an investment worth \$70,690 before taxes and \$50,412 after taxes. Assuming the money was invested in a regular taxable asset

allocation mutual fund, the insured would have \$50,412 if the term policy was allowed to lapse. If the whole life policy were surrendered at this point, the insured would receive \$47,975 slightly less than the value of the "difference". However, if the insured died while the term policy was in force, the beneficiaries would receive the \$100,000 plus the \$50,412 already saved. If the person died while the whole life policy was in force, the beneficiaries would receive \$152,419 slightly more than the **BTID** strategy.

These scenarios show that under certain circumstances whole life insurance may be more appropriate than term and vice versa. If the insured is very risk averse, is very financially stable, has long-term insurance needs, or just does not have the time or knowledge to "invest the difference" on his/her own, then whole life may be the better choice. However, if the insured knows a lot about the financial markets, is risk tolerant, has short-term life insurance needs, or has limited resources, a "buy term and invest the difference" strategy may be the more relevant choice.

On the flip side, these scenarios have implications for the insurance companies. Instead of name calling when a company like Primerica Financial Services actually realizes what the rest of the industry does not, they should follow suit. Primerica, among a limited number of others, has realized that the market for life insurance is segmented. Primerica, USAA, Quotesmith, and all the other single-line and specialty insurance companies have finally begun to make the leap toward being a customer focused service provider. Quotesmith markets its insurance products primarily through direct mail to people that have some knowledge of life insurance and therefore do not need an agent as a consultant. USAA

couples the direct mail with an 800 number for prospective customers to use. Primerica markets its term products primarily to people with a household income of \$50,000 or less and are around 35 years old.

Considering the fact that there are so many providers of insurance, most of which offer more than one insurance product, it seems to me that the days of mass marketing in print or on television supplemented by whatever the individual agents do are over. Insurance companies do not necessarily have to become a single-line provider or make agents entirely obsolete, but they need to reevaluate their marketing techniques. Insurance companies must integrate different marketing techniques into their overall marketing plan by using direct mail, telemarketing, the internet, or some other means in order to survive in the ever changing competitive environment that we live in. Insurance companies must recognize that the consumers buying life insurance are not homogeneous. There are different market segments that have different wants and needs that must be targeted as such. It would seem like the various life insurance products were created, in the first place, to address the diverse group of people in the market today. However, the industry as a whole has not taken this concept to the next level and actually targeted the segments with the products best suited for them.

A term or whole life insurance policy is essentially the same no matter which company provides it. Insurance companies need to differentiate themselves from other companies. As a result insurance companies must market themselves as better or at least different in some way than the other companies within the industry. If the insurance company is a low cost provider of whole life insurance like Northwestern Mutual Life then the segment of the market that it should target would

probably be financially stable families with long-term insurance needs. These families may need some help in planning their estate as well. Northwestern Mutual Life should not target 35 year old people who make less than \$50,000 a year. These people just do not have the right demographics for Northwestern Mutual's whole life products. If Northwestern Mutual wants to target these people too then they need to market a different product to them. These people need to be marketed to differently as they have different needs. If Northwestern Mutual does not want to take the time to find out who the term life insurance customer really is then Northwestern Mutual should just concentrate on the customer demographics it knows best. The other customers should be left to companies like USAA or Quotesmith who can provide better service for them.

Insurance companies need to recognize that these segments exist among the customers in the insurance industry. On the other hand, consumers need to realize that there are a wide array of products, each with its own merits, offered by a large number of insurance companies. My research indicates that no single product is far superior to the rest. This means the insurance companies must market themselves in a way to make their products seem different and/or better. If the insurance companies capitalized on their strengths and stopped using unnecessary name calling as a marketing tool, the industry as a whole would be much better off. The insurance companies would, ideally, target the customers that are most likely to buy their products. Insurance companies would also be selling the best product for the respective customer and not just the product that earns the most commission. This would ultimately be in

the best long-term interest for both the insurance company and the consumer.

Table 1

A. Five and Ten Year Summary of Returns for BTID

5 yr. returns

10 yr. returns

without tax

after tax

without tax

after tax

S&P 500	\$8,458.45	\$8,088.31		\$25,454.26	\$23,306.73
91 T-Bill	\$7,852.26	\$7,301.17		\$20,999.57	\$17,857.49

B. 20 Year Summary of Returns for BTID

without taxes

after taxes

S&P 500	\$113,904.07	\$76,715.40
91 T-Bill	\$48,150.26	\$37,381.08
91 T-Bill/Asset All.	\$70,689.93	\$50,412.46
91 T-Bill/Balanced	\$75,986.40	\$54,190.83
91 T-Bill/Max. Growth	\$87,703.03	\$62,443.05
91 T-Bill/Long Term Grth.	\$88,970.45	\$63,221.20

C. Five/Ten/Twenty Year Surrender Value of Whole Life Policy

5 yr. value

10 yr. value

20 yr. value

before tax/after tax

before tax

after tax

before tax

after tax

\$4,427		\$15,090	\$14,646		\$56,124	\$47,975
---------	--	----------	----------	--	----------	----------

Table 2
Capital Gains and Dividends 20 Year Summary

	S&P 500	91T-Bil	AssetAl	Balance	MaxGrth	LTGrth
1975	4.08%	5.40%	n/a	n/a	n/a	n/a
1976	3.77%	5.00%	n/a	n/a	n/a	n/a
1977	4.91%	6.20%	n/a	n/a	n/a	n/a
1978	5.28%	9.80%	n/a	n/a	n/a	n/a
1979	5.28%	12.80%	n/a	n/a	n/a	n/a
1980	4.54%	15.10%	n/a	n/a	n/a	n/a
1981	5.41%	12.90%	n/a	n/a	n/a	n/a
1982	4.88%	7.90%	n/a	n/a	n/a	n/a
1983	4.30%	8.90%	n/a	n/a	n/a	n/a
1984	4.50%	10.10%	n/a	n/a	n/a	n/a
1985	3.74%	7.10%	4.30%	6.99%	7.13%	7.08%
1986	3.42%	5.20%	8.16%	9.56%	9.38%	9.39%
1987	3.57%	6.10%	12.78%	12.14%	12.07%	12.09%
1988	3.50%	7.10%	10.99%	8.07%	8.07%	8.11%
1989	3.13%	7.80%	9.44%	8.68%	8.80%	8.81%
1990	3.66%	7.50%	9.97%	9.27%	9.33%	9.34%
1991	2.93%	5.70%	5.95%	6.12%	6.09%	6.12%
1992	2.84%	3.40%	7.14%	7.34%	7.43%	7.41%
1993	2.70%	2.70%	7.20%	7.16%	7.25%	7.27%
1994	2.87%	4.10%	5.98%	5.87%	5.88%	5.92%

Table 3

10 and 20 Year Summary of Geometric Mean Returns

	First 10 Yrs.	Second 10 Yrs.	Total After 20 Yrs.
S&P 500	14.74%	14.20%	14.47%
91 day T-Bills	9.36%	5.66%	7.49%
91 T-Bill/Asset All. ¹	9.36%	10.28%	9.82%
91 T-Bill/Balanced ¹	9.36%	11.21%	10.28%
91 T-Bill/Max. Growth ¹	9.36%	12.85%	11.09%
91 T-Bill/LT. Grth. ¹	9.36%	13.08%	11.21%

¹ **Second 10 Yrs.** numbers are for the respective mutual funds solely. Only the **Total After 20 Yrs.** takes into account the 91 day Treasury Bills used for the first 10 years of the simulation.

Appendix A

Part 1--BTID Diagram

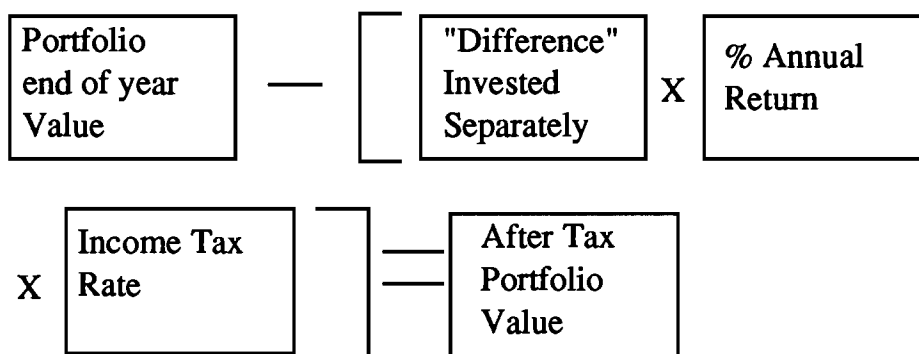


Examples:

		1st year Premium			
\$1,351	-	\$129	=		\$1,222
		2nd year Premium			
\$1,351	-	\$138	=		\$1,213

Part 2--Adjustment for taxes assuming 28% tax bracket

A. 91 day Treasury Bill



Example: 1975

$$\begin{aligned}
 & \$ (1,351 - 129) \times 1.054 - [(\$1,351 - \$129) \times 5.4\% \times 28\%] = \\
 & \quad \$1,269.51
 \end{aligned}$$

B. S&P 500

$$\frac{\text{Dividends in Index Form}}{\text{S\&P 500 Index Value}} = \text{\% Distributions of S\&P 500}$$

Example: 1994

$$13.18 / 459.27 = 2.87\%$$

$$\begin{aligned} & \text{Portfolio end of year Value} - \left[\text{Portfolio end of year Value} \times \text{\% Distributions of S\&P 500} \right] \\ & \times \text{Income Tax Rate} = \text{After Tax Portfolio Value} \end{aligned}$$

Example: 1994

$$(\$76,558.47 + 1,351 - 673) \times 1.0013 - [(\$76,558.47 + 1,351 - 673) \times 1.0013 \times 2.87\% \times 28\%] = \$76,715.40$$

C. Mutual Funds

$$\frac{\text{Total Distributions for specific year} \times \text{\% Investment Objective is of total net assets for mutual funds}}{\text{Net Assets for Investment Objective in specific year}} = \text{\% Distributions of Mutual Fund}$$

Example: 1993 Asset Allocation Mutual Fund

$$(\$109,407.70 \times 2.3\%) / \$34,973.60 = 7.2\%$$

$$\frac{\text{Portfolio end of year Value} - \text{Portfolio end of year Value}}{\text{Income Tax Rate}} \times \text{\% Distributions of Mutual Fund} = \text{After Tax Portfolio Value}$$

Example: 1993 Asset Allocation Mutual Fund

$$(\$45,916.86 + \$1,351 - \$627) \times 1.137 - [((\$45,916.86 + \$1,351 - \$627) \times 1.137) \times 7.2\% \times 28\%] = \$51,961.56$$

Works Cited

- Best's Flitcraft Compend Life-Health 1993 Edition.* A.M. best Company Inc. 1993.
- CDA/Weisenberger Mutual Funds Panorama 1995.* CDA Investment Tech. Inc. 1995.
- Damato, Karen. "Farewell to 'level' insurance premiums." *Wall Street Journal.* March 3, 1995.
- Davis, Kristin. "Should you switch policies?" *Kiplinger's Personal Finance Magazine.* Kiplinger Washington Editors Inc. October 1994
- Gitman, Lawrence J. and Joehnk, Michael D. *Fundamentals of Investing.* Harper Collins College Publishers. page 117. 1996.
- Gold, Andrew. "Annual renewable term policy comparison." *Best's Review-Life and Health Insurance Edition.* A.M. Best's Company Inc. June 1994.
- Haggerty, Alfred G. "Whole Life sales have slowed, but it still has a market." *National Underwriter Life and Health-Financial Services Edition.* National Underwriter Company. September 18, 1995.
- Halverson, Guy. "Insurance Described as a Financial Necessity." *Christian Science Monitor.* The Christian Science Monitor. May 8, 1995.
- Hansen, Kenneth A. "Discover life insurance as a tax free asset." *Best's Review-Life and Health Insurance Edition.* A.M. Best's Company. December 1995.
- Higginbotham, Mickey. "Primerica banks on mutual funds using term insurance package deals." *The Atlanta Journal and Constitution.* The Atlanta Constitution. February 23, 1996.
- Jones, Charles P. *Investments: Analysis and Management.* John Wiley and Sons, Inc. page 145. 1996.
- Lee, Shelley A. "Prime's time." *Business Atlanta.* Communication Channels, Inc. July 1993.

Mutual Fund Fact Book. Investment Company Inc. 1986-1990, 1993-1995.

Nisbett III, James B. "It seems as if vanish premiums is a whole lie."
National Underwriter Life and Health-Financial Services Edition.
National Underwriter Company. September 18, 1995.

"Northwestern Mutual Life Insurance Company claims paying ability rating reaffirmed at 'AAA'." *PR Newswire.* PR Newswire Association, Inc. January 10, 1996.

Olsen, Jon. "Insurance company climbs a notch to no. 6 nationwide."
Milwaukee Journal Sentinel. Milwaukee Journal Inc. March 11, 1996.

Piontek, Stephen. "Defend, defend, defend." *National Underwriter Life and Health-Financial Services Edition.* National Underwriter Company. November 6, 1995.

S&P 500 1992 Directory. Standard and Poors Corporation. 1992.

Scully, John C. "Has the life insurance industry forgotten its mission?"
Best's Review-Life and Health Insurance Edition. A.M. Best's Company Inc. February 1994.

Stanton, Russ. "Policy decision: weighing term vs. whole life insurance."
Chicago Tribune. August 19, 1993.

Svare, Christopher J. "Mutual fund statutes and regulations." *The Magazine of Bank Management.* Faulkner and Gray Inc. September 1992.

Tosto, Paul. "Buying Life Insurance that fits your needs requires knowledge." *The State.* Knight Ridder/Tribune News Service. February 23, 1995.

"Using life insurance to serve." *Kiplinger's Personal Finance Magazine.* Kiplinger Washington Editor's, Inc. September 1994.

Wright, J. Nils. "Life agents vow to stomp 'termite' invasion." *The Business Journal Serving Greater Sacramento.* Business/USA Inc. March 22, 1993.

Spreadsheet 1-- Adjusted for taxes

	1975	1976	1977	1978	1979	1978	1981	1982	1983	1984	10-gmean	
S&P 500	37.16%	23.57%	-7.42%	6.38%	18.20%	32.27%	-5.01%	21.44%	23.80%	6.10%	14.74%	
91 T-Bill	5.40%	5.00%	6.20%	9.80%	12.80%	15.10%	12.90%	7.90%	8.90%	10.10%	9.36%	244.72%
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	10-gmean	20-gmean
Asset-All	18.60%	13.20%	6.20%	10.40%	17.40%	-0.10%	20.90%	7.60%	13.70%	-2.60%	10.28%	9.82%
Balanced	26.10%	16.10%	2.60%	11.70%	18.70%	-0.80%	25.50%	7.90%	11.30%	-2.80%	11.21%	10.28%
MaxGrth	28.30%	13.60%	-0.40%	13.10%	26.40%	-9.30%	47.70%	8.10%	16.10%	-4.00%	12.85%	11.09%
LTGrowth	29.20%	14.70%	2.70%	15.00%	26.30%	-4.70%	35.90%	8.80%	11.80%	-1.80%	13.08%	11.21%
S&P 500	31.50%	18.56%	5.10%	16.60%	31.70%	-3.10%	30.50%	7.60%	10.10%	0.13%	14.20%	14.47%
91 T-Bill	7.10%	5.20%	6.10%	7.10%	7.80%	7.50%	5.70%	3.40%	2.70%	4.10%	5.66%	7.49%

35 Year old male, \$100,000 Select 100 (Pref/NS)-NW Mutual Life

IP=	\$1,351.00	5 yrs	10 yrs	20 yrs
Total Prem		\$5,755.00	\$13,510.00	\$27,020.00
Total Divd's		\$394.00	\$2,959.00	\$14,250.00
Total DB		\$101,711.00	\$111,838.00	\$152,419.00
Total SurV		\$4,427.00	\$15,090.00	\$56,124.00
Guan.CV		\$4,010.00	\$11,488.00	\$31,643.00
IP=	\$129.00	5 yrs	10 yrs	20 yrs
Total Prem.		\$738.00	\$1,848.00	\$6,737.00

ART Prem rates

1	\$129.00	11	\$333.00
2	\$138.00	12	\$361.00
3	\$147.00	13	\$390.00
4	\$156.00	14	\$424.00
5	\$168.00	15	\$460.00
6	\$181.00	16	\$496.00
7	\$197.00	17	\$541.00
8	\$218.00	18	\$584.00
9	\$243.00	19	\$627.00
10	\$271.00	20	\$673.00

35 Year old male, \$100,000 ART (Pref/NS)-Travelers Insurance

IP=	\$129.00	5 yrs	10 yrs	20 yrs
Total Prem.		\$738.00	\$1,848.00	\$6,737.00

Taxes Deducted

BTID	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
S&P 500	\$1,656.95	\$3,508.96	\$4,303.27	\$5,762.59	\$8,088.31	\$12,090.30	\$12,390.19	\$16,198.16	\$21,167.07	\$23,306.73
91 T-Bill	\$1,269.51	\$2,571.88	\$3,944.44	\$5,502.08	\$7,301.17	\$9,392.16	\$11,525.69	\$13,378.71	\$15,415.02	\$17,857.49
BTID	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Asset-All	\$22,116.79	\$25,559.26	\$27,155.10	\$30,048.62	\$35,363.03	\$35,171.76	\$42,777.20	\$45,916.86	\$51,961.56	\$50,412.46
Balanced	\$23,336.14	\$27,486.64	\$28,195.15	\$31,794.40	\$37,854.64	\$37,403.25	\$47,135.83	\$50,624.88	\$56,005.53	\$54,190.83
MaxGrth	\$23,733.78	\$27,348.55	\$27,243.39	\$31,140.79	\$39,490.55	\$35,637.45	\$52,914.92	\$56,822.90	\$65,455.67	\$62,443.05
LTGrowth	\$23,903.68	\$27,802.33	\$28,539.95	\$33,117.49	\$41,893.17	\$39,673.60	\$54,074.43	\$58,429.50	\$64,787.40	\$63,221.40
S&P 500	\$23,959.91	\$29,297.34	\$31,483.63	\$37,420.45	\$50,013.98	\$48,786.89	\$64,192.95	\$69,341.09	\$76,558.47	\$76,715.40
91 T-Bill	\$19,838.61	\$21,608.43	\$23,560.68	\$25,739.49	\$28,126.06	\$30,546.04	\$32,642.89	\$34,227.77	\$35,631.23	\$37,381.08

Spreadsheet-- 2 Not Adjusted for taxes

	1975	1976	1977	1978	1979	1978	1981	1982	1983	1984
S&P 500	37.16%	23.57%	-7.42%	6.38%	18.20%	32.27%	-5.01%	21.44%	23.80%	6.10%
91 T-Bill	5.40%	5.00%	6.20%	9.80%	12.80%	15.10%	12.90%	7.90%	8.90%	10.10%
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Asset-All	18.60%	13.20%	6.20%	10.40%	17.40%	-0.10%	20.90%	7.60%	13.70%	-2.60%
Balanced	26.10%	16.10%	2.60%	11.70%	18.70%	-0.80%	25.50%	7.90%	11.30%	-2.80%
MaxGrth	28.30%	13.60%	-0.40%	13.10%	26.40%	-9.30%	47.70%	8.10%	16.10%	-4.00%
LTGrowth	29.20%	14.70%	2.70%	15.00%	26.30%	-4.70%	35.90%	8.80%	11.80%	-1.80%
S&P 500	31.50%	18.56%	5.10%	16.60%	31.70%	-3.10%	30.50%	7.60%	10.10%	0.13%
91 T-Bill	7.10%	5.20%	6.10%	7.10%	7.80%	7.50%	5.70%	3.40%	2.70%	4.10%

35 Year old male, \$100,000 Select 100 (Pref/NS)-NW Mutual Life

IP=	\$1,351.00	5 yrs	10 yrs	20 yrs
Total Prem		\$5,755.00	\$13,510.00	\$27,020.00
Total Divd's		\$394.00	\$2,959.00	\$14,250.00
Total DB		\$101,711.00	\$111,838.00	\$152,419.00
Total SurV		\$4,427.00	\$15,090.00	\$56,124.00
Guan.CV		\$4,010.00	\$11,488.00	\$31,643.00

ART Prem rates

1	\$129.00	11	\$333.00
2	\$138.00	12	\$361.00
3	\$147.00	13	\$390.00
4	\$156.00	14	\$424.00
5	\$168.00	15	\$460.00
6	\$181.00	16	\$496.00
7	\$197.00	17	\$541.00
8	\$218.00	18	\$584.00
9	\$243.00	19	\$627.00
10	\$271.00	20	\$673.00

35 Year old male, \$100,000 ART (Pref/NS)-Travelers Insurance

IP=	\$129.00	5 yrs	10 yrs	20 yrs
Total Prem.		\$738.00	\$1,848.00	\$6,737.00

No Taxes

BTID	1975	1976	1977	1978	1979	19780	1981	1982	1983	1984
S&P 500	\$1,676.10	\$3,570.05	\$4,419.82	\$5,973.05	\$8,458.45	\$12,735.55	\$13,193.68	\$17,398.32	\$22,910.82	\$25,454.26
91 T-Bill	\$1,287.99	\$2,626.04	\$4,067.50	\$5,778.22	\$7,852.26	\$10,384.62	\$13,027.11	\$15,278.75	\$17,845.17	\$20,999.57
BTID	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Asset-All	\$26,112.83	\$30,680.41	\$33,603.17	\$38,121.31	\$45,800.45	\$46,608.80	\$57,329.33	\$62,511.65	\$71,898.93	\$70,689.93
Balanced	\$27,764.15	\$33,383.57	\$35,237.53	\$40,395.78	\$49,007.40	\$49,463.50	\$63,093.25	\$68,905.21	\$77,497.31	\$75,986.40
MaxGrth	\$28,248.54	\$33,214.98	\$34,039.27	\$39,546.86	\$51,113.45	\$47,135.38	\$70,815.33	\$77,380.50	\$90,679.32	\$87,703.03
LTGrowth	\$28,446.69	\$33,763.89	\$35,662.46	\$42,077.88	\$54,269.69	\$52,533.83	\$72,494.27	\$79,708.26	\$89,923.27	\$88,970.45
S&P 500	\$34,811.03	\$42,445.70	\$45,620.44	\$54,274.31	\$72,652.72	\$71,228.98	\$94,010.87	\$101,980.98	\$113,078.19	\$113,904.07
91 T-Bill	\$23,580.81	\$25,848.49	\$28,444.87	\$31,457.28	\$34,871.44	\$38,405.93	\$41,451.23	\$43,653.65	\$45,575.85	\$48,150.26