Are you protecting your most valuable financial asset?

EXECUTIVE SUMMARY

What is a family's most valuable asset? For many high-income earners, their most valuable asset isn't their home or retirement account. It is their ability to earn money in the future. All of their financial goals and lifestyle aspirations rest on these future earnings — even with only 10–15 years remaining in the workforce. Most of us face the risk that an unexpected diagnosis or accident could impact the income we need to maintain the lifestyle that we'd planned for.

Economists agree that the most efficient way to protect against the loss of this valuable asset to disability is through insurance.[1] By sharing the risk with others through an individual disability insurance policy, we're able to protect our most valuable asset. This white paper discusses the use of a holistic balance sheet to illustrate the value of future earnings, also known as human capital, in order to explain the consequences of failing to buy individual disability insurance protection. Graphical illustrations show the magnitude of the risk on total wealth and on lifestyle.

The article explains why Social Security protects only a small fraction of the potential loss, and workplace disability policies may unwittingly expose workers to significant holistic wealth loss that can be overcome with a supplemental private disability policy. Business owners in particular are exposed to significant risk without additional disability protection. Other high-income earners, including physicians, attorneys, etc. who have significant financial wealth (and lifestyle expenses to match), can easily underestimate the impact that a disability can have on their lifestyle and ability to meet future goals.

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He has been widely recognized for his extensive research on retirement income planning issues.

[1] The primary welfare benefit of private disability insurance is the protection against large wealth losses from long-term disability. Soika (2018), "Moral Hazard and the Advantageous Selection in Private Disability Insurance," The Geneva Papers on Risk and Insurance, 43, 97-125.

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INTRODUCTION

Every year, thousands of Americans are diagnosed with a long-term illness or suffer an unexpected accident that affects their ability to return to the workforce. Illnesses that commonly result in long-term disability, such as cancer or autoimmune diseases, can occur among workers in any occupation. While one in four Americans can expect to experience some form of disability between age 20 and 65,[2] a smaller percentage experience a long-term disability that will significantly impact their family's ability to meet long-term financial goals. Musculoskeletal disorders including arthritis, back pain, spine/joint disorders, fibrositis, etc. are the leading cause of disabilities not accidents.[3] Whether acquired through illness or an accident, a disability affects the person with the disability as well as family and friends because of the physical, emotional and psychological adjustments that it may require.

Many families are exposed to the risk of the financially devastating consequences of a long-term disability without recognizing the impact a loss of income could have on financial goals. In this paper, I show how significant the risk of disability can be, particularly for those with higher earnings. A plan that integrates both wealth accumulation and wealth preservation must consider and address risks that could prevent a family from reaching their future financial goals.

“Many families are exposed to the risk of the financially devastating consequences of a long-term disability without recognizing the impact a loss of income could have on financial goals.

[2] U.S. Social Security Administration, Disability and Death Probability Tables (Updated in 2022) for Insured Workers Born in 2002. https://www.ssa.gov/oact/NOTES/ran6/an2022-6.pdf Table A.

[3] The Council for Disability Awareness, 2022. The chances of becoming disabled are rapidly increasing; disability statistics (disabilitycanhappen.org)

HOW SHOULD A FAMILY PROTECT AGAINST THE RISK OF A LONG-TERM DISABILITY?

Private disability income insurance reduces the financial devastation caused by a risk that all working families face — the inability to earn an expected income because of an unforeseen change in health. Insurance allows individuals to share financial risks so that overwhelming financial losses don't have to be borne by a single family.

“Economists agree that the most efficient way to deal with this type of small probability/high consequence risk is through risk pooling, which can only be accomplished with private disability insurance.

Developing a plan to meet future financial goals involves both an offensive strategy for saving and investing and a defensive strategy to protect against financial risks. Incorporating both protection and growth is the essence of integrated wealth management. By creating a plan for both investment and protection, a family is better able to meet financial goals free of the fear that these goals will be derailed by a loss that cannot otherwise be avoided.

Building a secure retirement, funding a child's education, paying off a mortgage, buying a new home, leaving a legacy to others and knowing that you can do the things you want to do all rest on a family's ability to earn income. We all face the risk that this income can be lost if we become disabled.

The most financially devastating long-term disabilities are relatively rare, as is the loss of a home from a fire or significant medical expense. Economists agree that the most efficient way to deal with this type of small probability/high consequence risk is through risk pooling, which can only be accomplished with private disability insurance.[4]

THE VALUE OF FUTURE INCOME

Imagine that you have inherited from a wealthy uncle a $3 million, 30-year bond that makes payments of $100,000 every year. The only catch is that to inherit the bond you must agree that this can be your only form of income.

Every year, you spend $80,000 and set aside $20,000 to pay for future goals, such as retirement and a down payment on a home. These future goals rest on the ability to set aside $20,000 each year.

The bond is issued by a single company. If the company goes bankrupt, the bond will no longer produce income payments. Your future financial security rests on the future income from the bond.

You are offered an insurance policy that costs $2,000 each year that will protect against the risk of bankruptcy. If the company goes bankrupt, the bond insurance will continue to make income payments until the end of the 30-year period. If you do not buy insurance and the company goes bankrupt, you no longer receive any income.

Would you buy the insurance?

[4] The primary welfare benefit of private disability insurance is the protection against large wealth losses from long-term disability. Soika (2018), "Moral Hazard and the Advantageous Selection in Private Disability Insurance," The Geneva Papers on Risk and Insurance, 43, 97-125.

Our ability to earn, turning our time and skills into income, is like the income payment from a bond in this example. Earnings tend to be relatively steady over our working lives,[5] and we rely on these earnings to pay for our current lifestyle and fund future goals. As in the bond example, we also face the risk that an unforeseen event will result in the loss of income.

Fortunately, insurance products exist that can protect this income against the possibility of loss. A worker can pay a modest premium (1-3 percent of annual salary) each year to avoid the extreme loss of wealth caused by a long-term disability.

How valuable is a household's ability to earn future income? The total aggregate value of expected future earnings is 2.33 times higher than the value of all physical capital, including the value of stocks, bonds and housing combined.[6] **For most workers, it is the most valuable asset in the world, yet wealth from human capital is often overlooked because it doesn't show up on a conventional balance sheet.**

> "A worker can pay a modest premium (1-3 percent of annual salary) each year to avoid the extreme loss of wealth caused by a long-term disability.

[5] For most people, as financial capital grows, their capacity for risk declines. This is because for most people, future earnings are fairly predictable, thus making human capital bond-like. So at the beginning of one's career, when financial capital is very low relative to human capital, the capacity for risk is higher. Paul Kaplan (2016), "How your asset mix should evolve over time."

[6] Korn Ferry Economic Analysis: Human Capital Nearly 2.5 Times More Valuable to Economy Than Physical Assets Such as Technology, Real Estate & Inventor (2016)

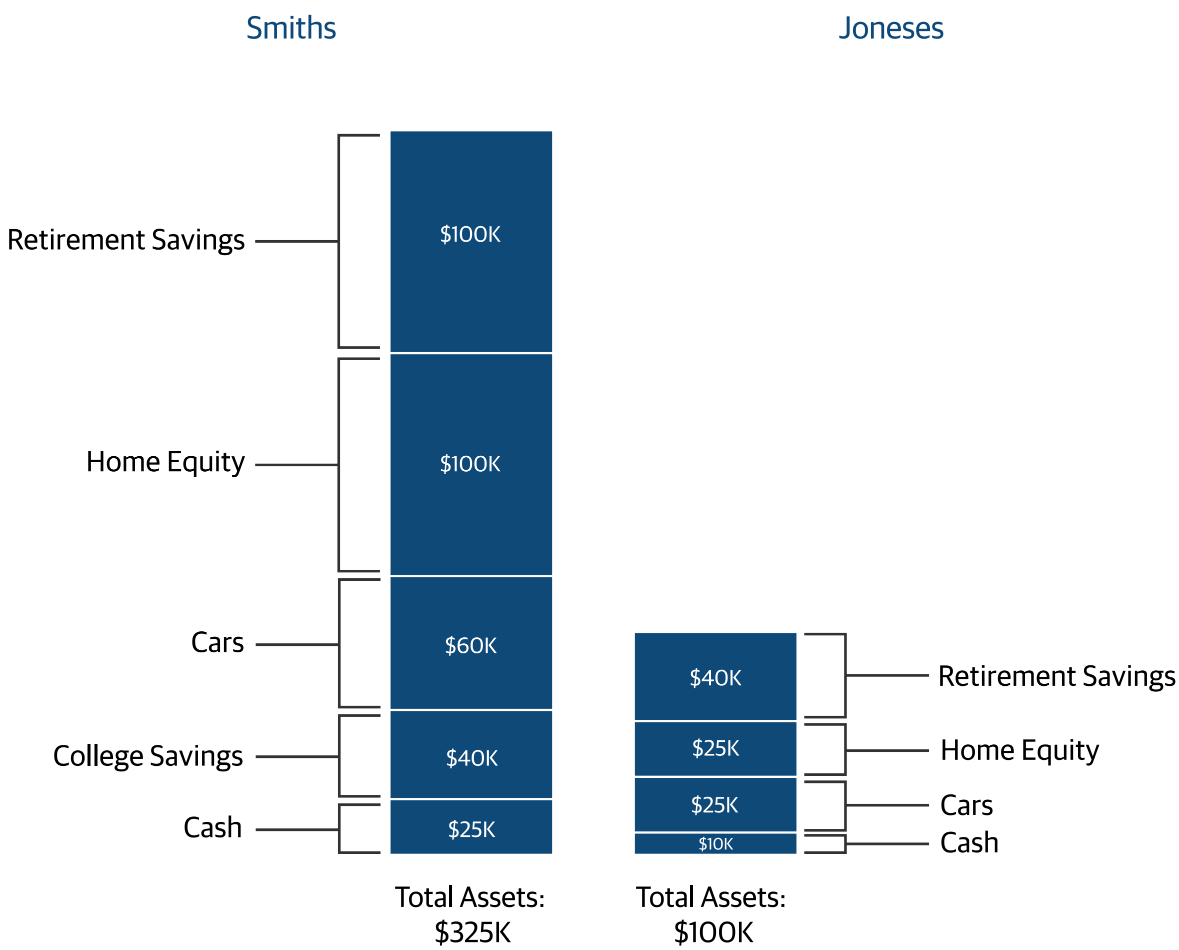
UNDERSTANDING HUMAN WEALTH

What motivates us to go to school or develop a set of specialized skills valued by the market? Consider two hypothetical families. The Jones family has spent a significant amount of time earning an education to develop skills required to earn an expected $5 million of income over the next 25 years. The Smiths have avoided student debt, saved for retirement, paid off cars and started a college savings fund. They can expect to earn $2.5 million over the next 25 years.

A conventional balance sheet suggests that the Smiths are in much better financial shape. But does their greater wealth mean that the Smiths can expect to spend more each year? Will they save more for retirement and their college savings account and live in a similar home? Will the Jones family have more modest financial goals?

Figure 1

Traditional Balance Sheet for Smith and Jones Families

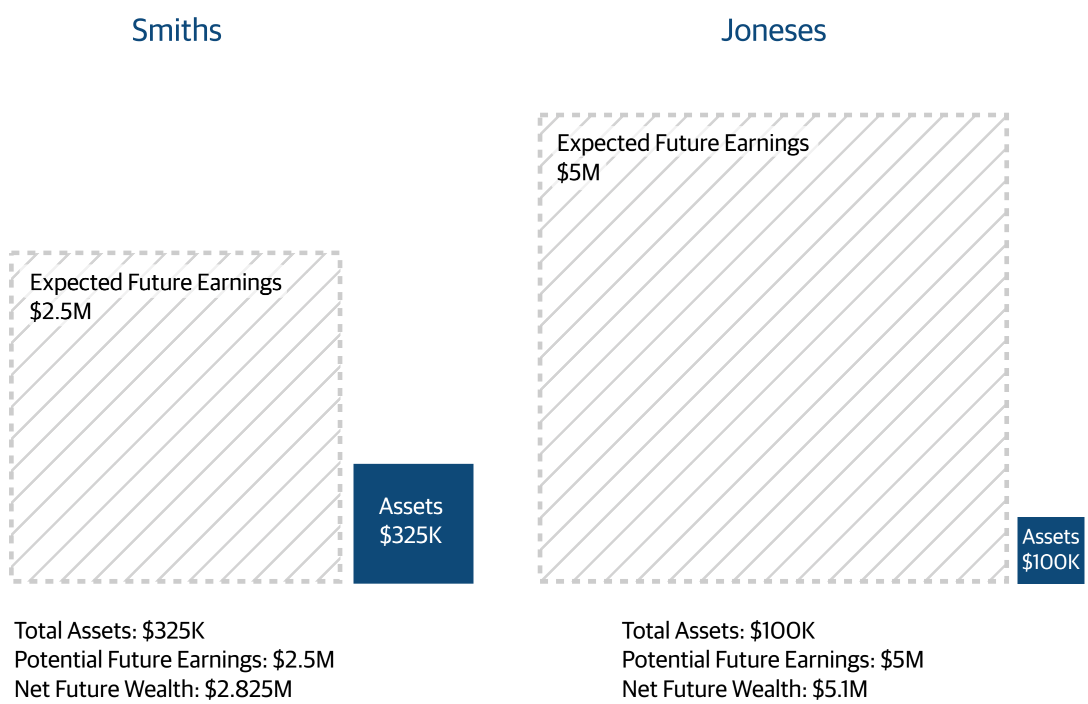


The Jones family may appear to be in a sorry financial state compared to the Smiths, but they can expect to earn twice as much each year for the next 25 years because of the additional education and skills they have acquired. A more accurate balance sheet would include the present value of expected net future earnings, or human wealth.

A holistic balance sheet tells a completely different story about the financial strength of each family. While the Smiths have accumulated $325,000 in financial wealth by the age of 40, this amount is dwarfed by the difference in expected earnings that can be used by the Jones family to fund their own more ambitious savings goals in the future.

Figure 2

Holistic Balance Sheet for Smith and Jones Families



Both families wouldn't hesitate to pay for insurance to protect against the loss of their car or home. Shouldn't they also pay for insurance to protect against the loss of the asset that dwarfs home and car equity on the holistic balance sheet?

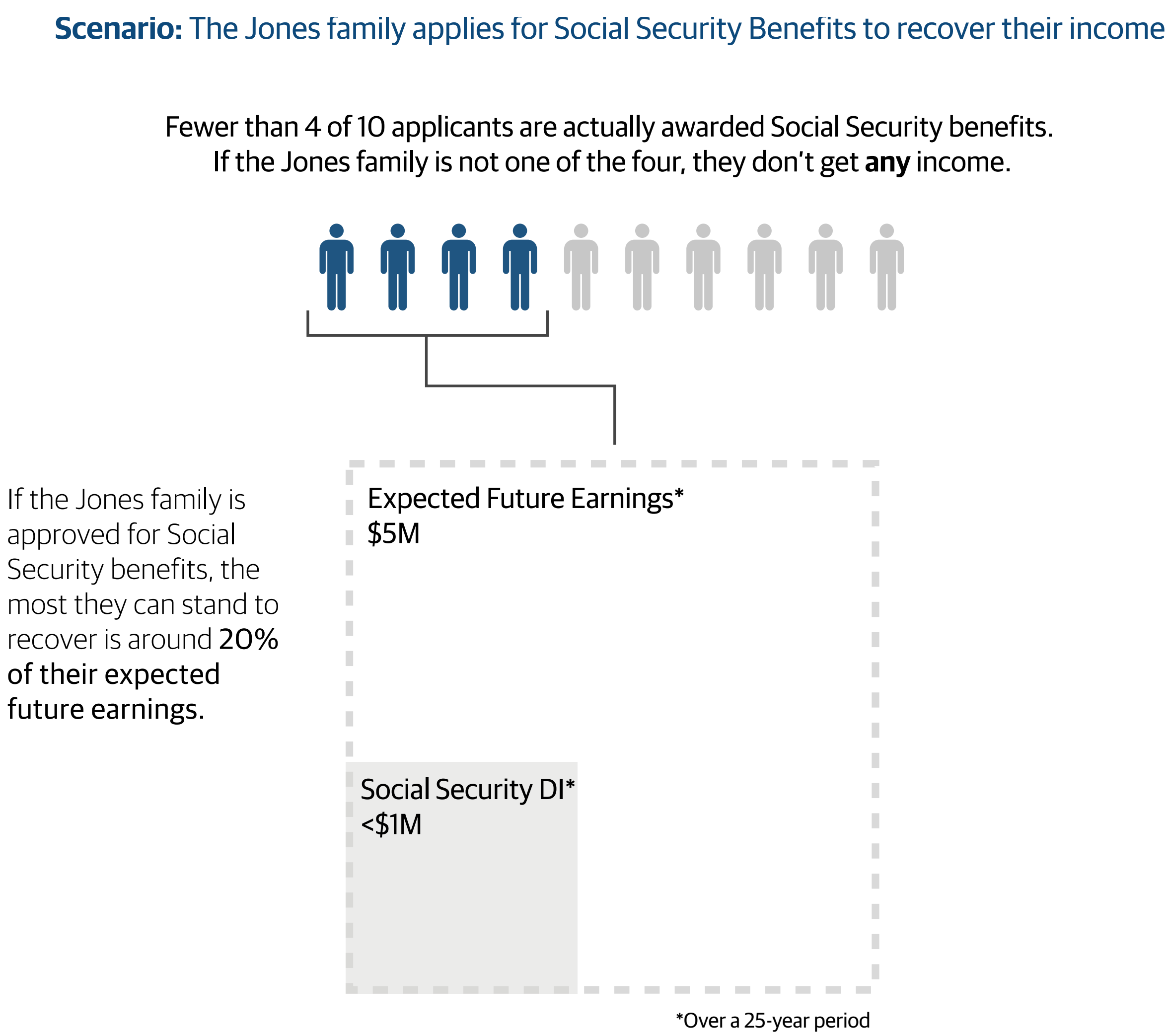
Imagine the Jones family failed to protect against the $25,000 loss of a car. What impact would this have on their future lifestyle? How would it affect their retirement or their ability to save for a child's education? Although the loss appears severe to a family with only $100,000 of traditional assets, over time the loss would have a limited impact on their lifestyle.

What would happen if the Jones family lost the earning ability of a primary earner because of a long-term disability?

The impact would be devastating. The Jones family may apply for Social Security Disability Insurance (SSDI), but fewer than 40% of disability applicants are awarded those benefits. SSDI benefits are calculated on your lifetime average earnings covered by Social Security, may be offset if you receive certain other government benefits and start six months after the disability occurs.[7] The maximum SSDI benefit of $40,140 per year would replace less than 20% of the Jones' human wealth loss.[8]

Figure 3

Holistic Balance Sheet for Jones Family – Disabling vs. Non-disabling Event



What if the Jones family had access to an employer-provided group disability insurance policy? **Typically, group policies provide limited long-term disability protection that covers 40–60% of pre-tax earnings to a specified maximum (e.g., $10,000 per month).** Workers cannot maintain this protection between jobs because it's connected to their employer, who also has the ability to raise rates, reduce benefits or cancel the policy. Self-employed workers may not have access to a group policy.

[7] *What You Need to Know When You Get Disability Benefits* (Publication No. 05-10153) April 2021, The United States Social Security Administration (SSA), https://www.ssa.gov/benefits/disability/approval.html

[8] Based on a maximum monthly benefit of $3,345 for a worker retiring at full retirement age of 67: https://www.ssa.gov/news/press/factsheets/colafacts2022.pdf

BUYING INDIVIDUAL DISABILITY INCOME INSURANCE PROTECTION

Workers can purchase individual disability insurance to protect against short-term losses or a long-term loss of income. A family can also choose from a range of "elimination period" options, which means the time between the onset of disability and the first benefit payment.

Most disabilities that interrupt a worker's ability to earn income don't last for decades. These shorter-term disability events can be financially devastating for families who don't have the financial flexibility to support their accustomed lifestyle while the worker recovers.

However, shorter-term disability represents a more modest risk to human wealth. A family that expects to work for another 25 years will be affected by the loss of one year's earnings, but the financial impact will not be nearly as significant as it would with a long-term disability.

To preserve the value of human wealth, a family can purchase an individual long-term disability income (DI) insurance policy. The slightly higher cost of obtaining private individual DI insurance can be offset by the selection of a longer elimination period while still obtaining a benefit that can preserve most of the human wealth protection at a lower cost over time. Of course, families need to have the ability to fund their ongoing spending needs during the elimination period for this option to be appropriate.

CASE STUDIES

Consider three workers who are counting on their human wealth to fund a lifestyle and future goals. In these examples, human wealth is calculated by estimating the present value of future earnings discounted by the yield on 10-year Treasury bonds.[9] To estimate the value of take-home future income, average federal tax rates are set at 20% for earners below $450,000 and 25% for earners above $450,000.[10]

NOTE: For details on policy design and premium examples used in these case studies, refer to "Common Assumptions" in the End Notes section on the last page of this paper.

Let's consider the following case study examples of three workers who face disability risk and the impact of private disability insurance on their financial outcomes.

49-year-old business owner

Aaron Williams is a 49-year-old business owner with a $300,000 annual income. He expects to work to age 70. The discounted present value of his after-tax future earnings is $4.19 million. If he is successful at obtaining SSDI benefits, these will replace $579,803 of his human wealth, leaving a potential present value loss of at least $2.863 million over the course of his earning years.[11]

Figure 4

Nominal impact of Social Security Disability Insurance (SSDI) benefits on Aaron's human wealth

Figure 5

Impact of additional income protection in the event of a covered total disability on Aaron's human wealth and lifestyle preservation

Aaron can help to replace a portion of his human wealth by acquiring additional private individual disability income insurance that could provide $13,800 in monthly benefits that last for up to age 70. The cost of this protection ranges from an initial $6,437 per year for a 90-day elimination period to $5,030 per year for a one-year elimination period to $4,754 for an 820-day elimination period. By selecting a one-year elimination period, Aaron can still replace 98% of his potential human wealth loss from a permanent disability.

[9] Discount rate applied to human wealth is 3.2% (as of June 2022).

[10] https://taxfoundation.org/publications/latest-federal-income-tax-data/. A 5% state income tax is added to the estimated average Federal tax rate.

[11] Based on a maximum monthly benefit of $3,345 for a worker retiring at full retirement age: https://www.ssa.gov/news/press/factsheets/colafacts2022.pdf

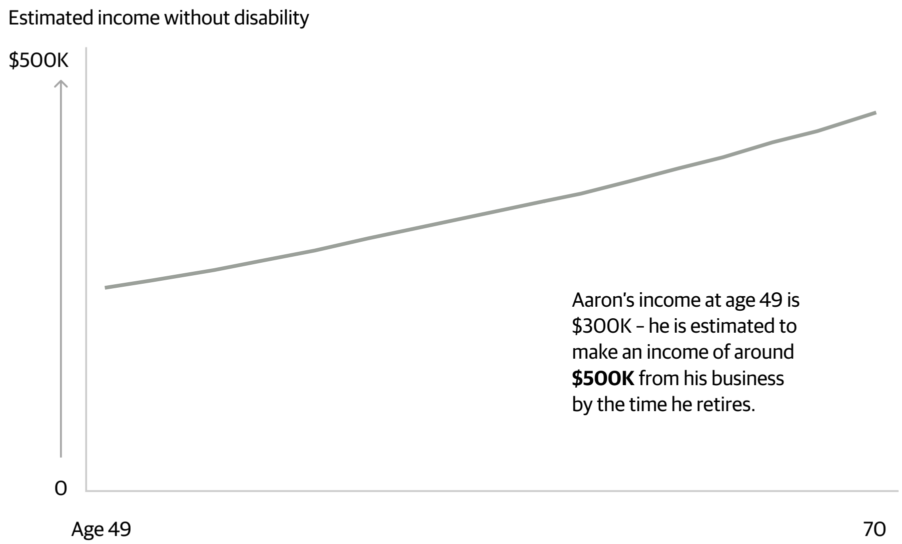
These premium costs for Aaron's coverage based on current projections may fall as much as 39% by age 54 as anticipated dividends applied to the policy premium decrease the ongoing cost of disability insurance.[12] When thinking about buying disability income insurance, consider whether the carrier offers a policy that is eligible to share in dividends and, if so, the insurer's history of paying dividends.

NOTE: Refer to "Common Assumptions" in the End Notes for details on policy design and premium examples used the scenarios.

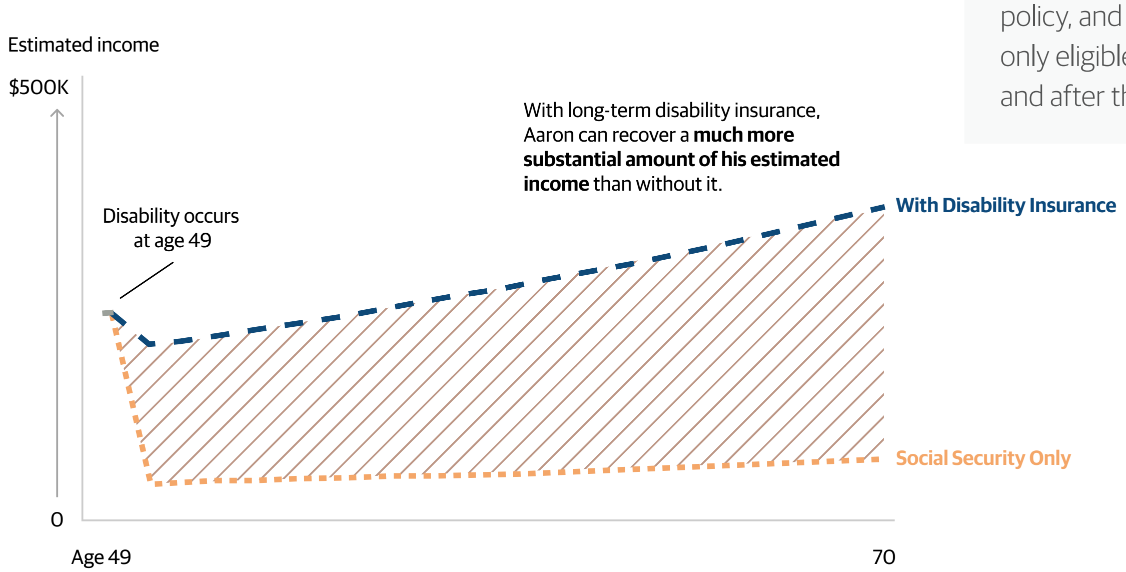
Figure 6

Protecting Lifestyle in the Event of a Disability – Hypothetical Example for Aaron

Expected income trajectory



If a disabling event occurs, what will happen to Aaron's income?



HOW DO DIVIDENDS WORK?

Dividends are a portion of an insurance company's surplus that is paid back to policyowners. Money that doesn't go to pay claims and expenses gets invested, and those earnings can increase policyowner dividends. Dividends paid on disability income insurance reduce the following year's premium (unless you are on claim; in that event, dividends are payable in cash). While payment of a dividend on a particular policy is not guaranteed in any given year, Northwestern Mutual has paid dividends on its disability income insurance every year since 1971. In the last 10 years (as of year-end 2021), policyholders have received more than $3.0 billion in total DI dividends. (non-cancellable only). Only one other major provider offers a participating policy, and those policies are only eligible for dividends on and after the sixth year.

[12] Nonguaranteed dividends are reviewed annually and are subject to change.

In the first month of DI benefits kicking in ...

$3,000 / month
for the mortgage

$3,500 / month
for lifestyle expenses

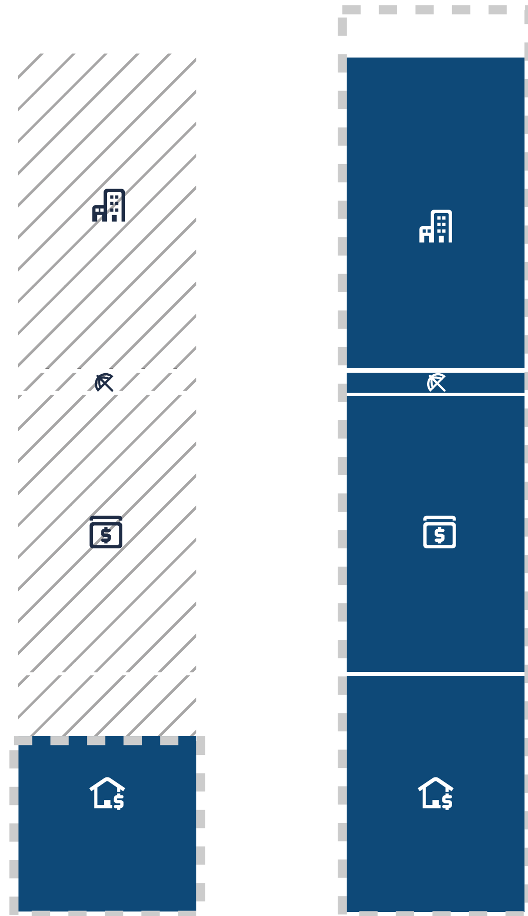
- Kids' education
- Travel
- Philanthropy
- Private club dues
- Fitness
- Entertainment

$300 / month
for retirement

$4,000 / month
for business expenses

With all of these expenses, Social Security (SSDI) benefits alone won't cover what Aaron needs to support his family.

In the event of a disability, Aaron's decision to get individual disability income (IDI) insurance will give him and his family **the opportunity to protect their lifestyle.**



SSDI & Group
Total income:
$2,300.80 / month

SSDI, Group, & IDI
Total income:
$11,447.46 / month

Graphs and numbers are illustrative, based on a hypothetical case study of a 49-year-old business owner making $300,000 annually.

49-year-old surgeon

Brian Kirland, a 49-year-old surgeon, suffers a serious back injury while water skiing and can no longer stand for the long periods of time required to perform surgery. Unable to generate his share of expected revenue in the medical practice, Brian loses his partner status, which had contributed to his current earnings of $54,200 per month, or $40,625 after taxes. At the time of the ski accident, the present value of his expected net future earnings, also known as his human wealth, is $7.482 million. Compared to Aaron, even if Brian was approved for the maximum SSDI benefit, it can only help replace less than 10% of his human wealth.

Brian is eligible to receive a typical tax-free group long-term disability income insurance (LTD) benefit of $10k. Unfortunately, this benefit can only help replace $1.826 million of his $7.482 human wealth loss from a "total" disability.[13]

Brian's risk exposure is particularly large because he continues to pay off student loans from medical school, and years of education means that he has fewer years to meet his retirement savings goals. **How will this unexpected, life-changing injury impact Brian and the prospect of realizing the expected return on his investment in human wealth by becoming a surgeon? What lifestyle changes might be required?** Private disability insurance is a product designed to protect income and mitigate the loss of expected future earnings.

Figure 7

Nominal impact of SSDI and group LTD benefits on Brian's human wealth

Figure 8

Impact of additional income protection in the event of a covered total disability on Brian's human wealth and lifestyle preservation

Let's assume, for instance, Brian chose to purchase an additional $20,000 of monthly disability income insurance. Because he wants to protect against the human wealth loss from a total disability that affects his ability to perform surgery, he chooses to purchase a Medical True Own Occupation policy.

The combined group and individual disability benefits will replace $30,000 of his monthly income, or a total of $5.479 million of human wealth. This can help replace 75% of his total human wealth if he becomes totally disabled at age 49 and nearly 100% of his wealth if he is eligible to receive SSDI benefits.

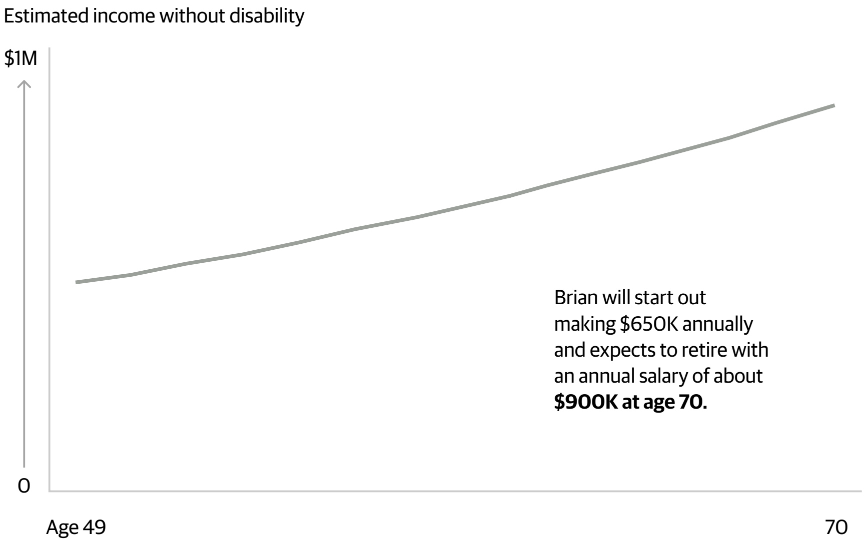
[13] This assumes a qualifying disability and receipt of full monthly benefits on the specified date following the start of disability when benefits begin to accrue continuously through the maximum benefit period of age 67. Group LTD benefits typically last for two, five, or 10 years or, as in this case, until retirement age which is Age 67 according to the Social Security Administration. Private individual disability insurance typically offers more generous benefit periods up to Age 70.

The premium cost of replacing $240,000 of initial annual income through private disability insurance to age 70 will initially be $27,515, decreasing at age 59 to a projected premium outlay of $16,935 after dividends — which are not guaranteed.[14] He can reduce the initial premium by 25% to $20,655 by selecting a one-year elimination period. With this elimination period and policy benefits to age 70, the insurance can help replace 71% of his total human wealth loss.

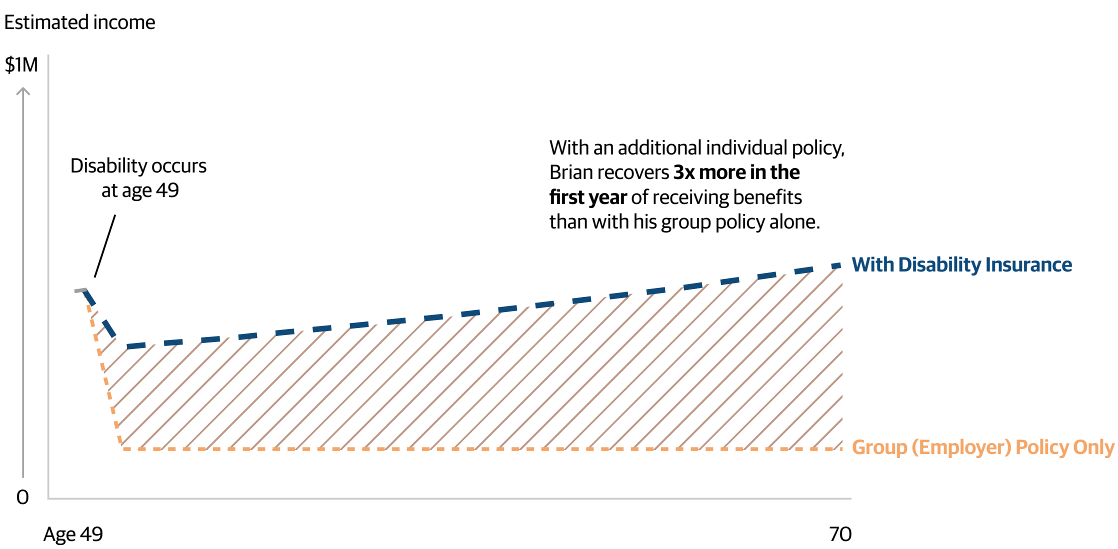
Figure 9

Protecting Lifestyle in the Event of a Disability – Hypothetical Example for Brian

Expected income trajectory



If a disabling event occurs, what will happen to Brian's income?



[14] Nonguaranteed dividends are reviewed annually and are subject to change. Refer to "Common Assumptions" in the End Notes for details on policy design and premium examples used the scenarios.

In the first month of DI benefits kicking in ...

$5,500 / month
for the mortgage

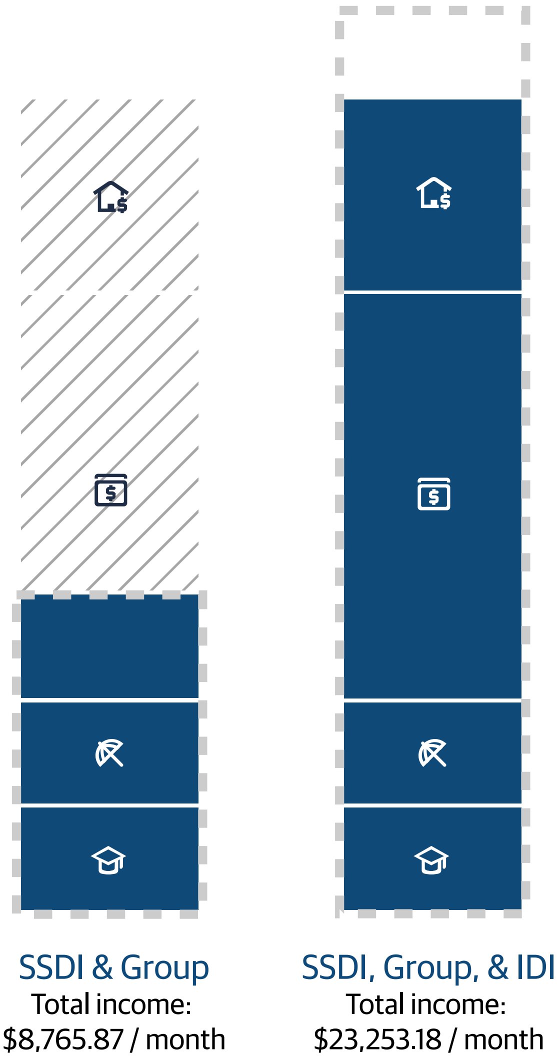
$11,500 / month
for lifestyle expenses

- Philanthropy
- Travel
- Private club dues
- Fitness
- Entertainment

$3,000 / month
for retirement

$3,000 / month
for kids' private school

Brian's choice to get additional disability insurance doesn't just give him more income – it allows him to **keep what's important to him.**



Graphs and numbers are illustrative, based on a hypothetical case study of a 49-year-old surgeon making $650,000 annually.

49-year-old attorney

Elizabeth Everly is a 49-year-old intellectual property attorney earning $800,000 per year as a partner and rainmaker in her firm. If she works to age 70, her after-tax human wealth (expected net future earnings) is $8.595 million.

Her employer group long-term disability income insurance policy pays $120,000 per year to age 67, which can only help replace 21% of her human wealth loss in the event of a total disability. However, her financial plan is based on earning a much higher salary, and a 79% human wealth loss will not come close to replacing the salary she expected to devote to saving for retirement, funding tutors and private education for her two children, enjoying various social and recreational activities through the local country club and achieving her philanthropic goals.

Figure 10

Nominal impact of SSDI and group LTD benefits on Elizabeth's human wealth

Figure 11

Impact of additional income protection in the event of a covered total disability on Elizabeth's human wealth and lifestyle preservation

In order to restore the lost income needed to help meet her most important financial and lifestyle goals, Elizabeth decides to purchase an additional $20,000 of monthly income through a private disability insurance policy. **Should Elizabeth become totally disabled at age 49, this added insurance can help replace much of her human wealth loss, providing income to help cover her lifestyle expenses and help meet future financial goals.** Between the group and private individual disability policies, she could expect to receive $6.2 million of human wealth replacement, or 64% of the human wealth loss.

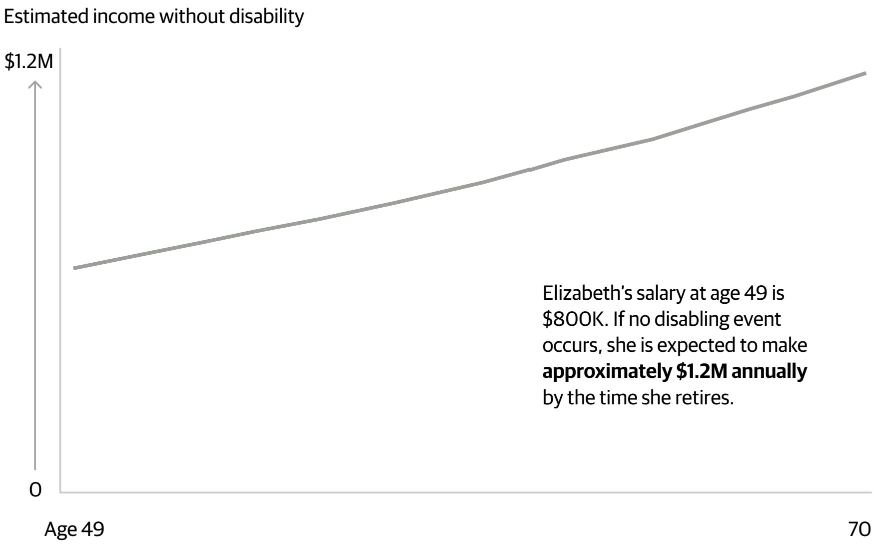
The initial annual premium for disability insurance is $15,915 for a three-month elimination period, and just $11,935 for a one-year elimination period that could replace just 2% less of her human wealth loss than the 90-day elimination period. Her projected annual premium outlay net of dividends, which are not guaranteed, can fall by 32% by age 58.[15]

[15] Nonguaranteed dividends are reviewed annually and are subject to change. Refer to "Common Assumptions" in the End Notes section of this paper for details on policy design and premium examples used in this scenario.

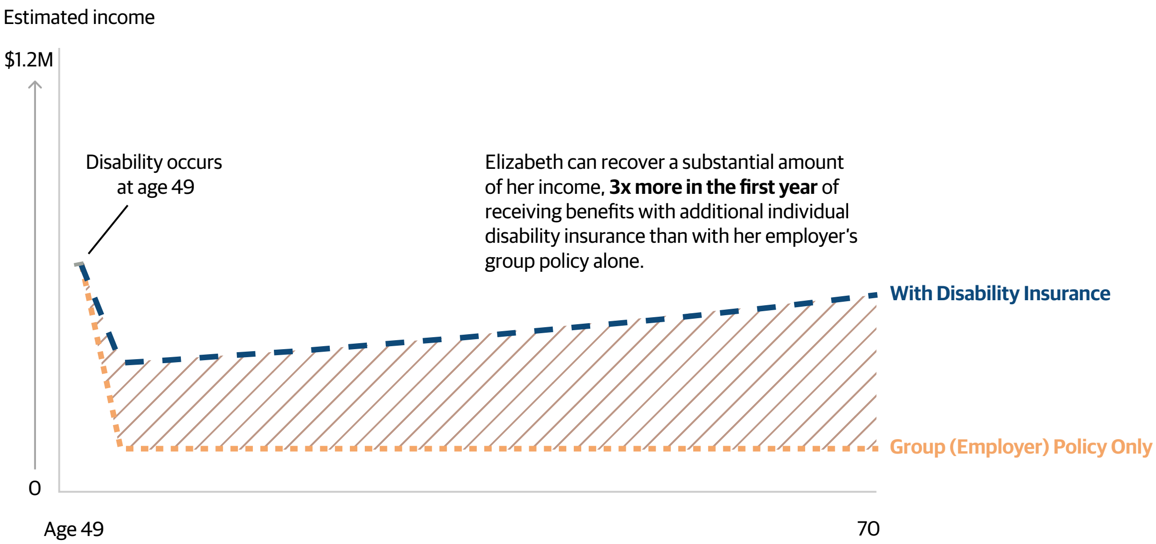
Figure 12

Protecting Lifestyle in the Event of a Disability – Hypothetical Example for Elizabeth

Expected income trajectory



If a disabling event occurs, what will happen to Elizabeth's income?



In the first month of DI benefits kicking in …

$4,000 / month
for the mortgage

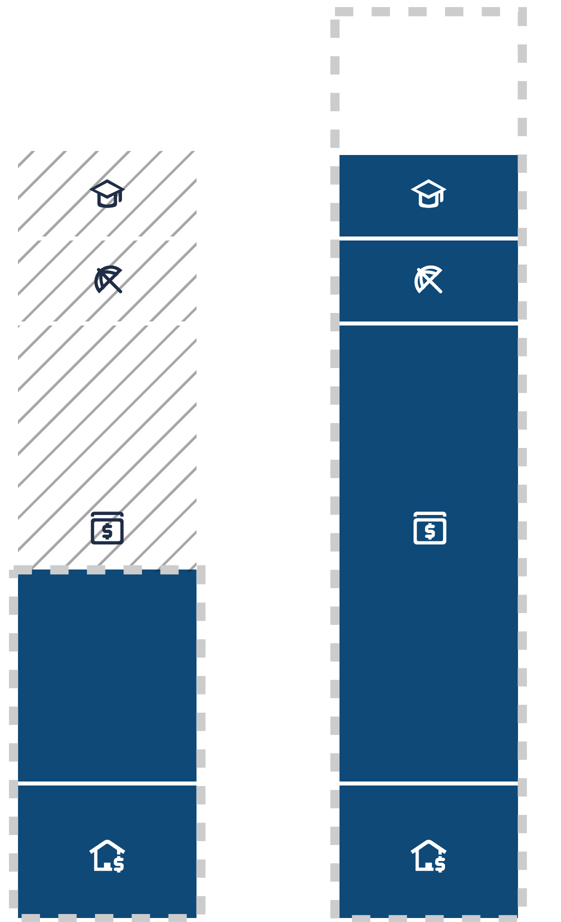
$13,500 / month
for lifestyle expenses

- Kids' college funds
- Travel
- Philanthropy
- Private club dues
- Fitness
- Entertainment

$2,500 / month
for retirement

$3,000 / month
for kids' private school

By purchasing additional disability insurance, Elizabeth ensures that her financial plans will be able to stay on track in the event of her disability, letting her focus on **supporting her family.**



SSDI & Group
Total income:
$10,515.09 / month

SSDI, Group, & IDI
Total income:
$26,943.66 / month

Graphs and numbers are illustrative, based on a hypothetical case study of a 49-year-old lawyer making $800,000 annually.

CONCLUSION

Our lifestyle and future financial goals depend on the ability to earn future income. A devastating loss of that income for an extended period from a disability can prevent a family from meeting important financial goals and even jeopardize their basic lifestyle. Disability insurance provides the peace of mind that an unexpected health event won't result in a loss of our most valued asset — our human wealth.

END NOTES: COMMON ASSUMPTIONS

1. Disability insurance case study scenarios are based on Disability Income (NCDI) – Policy Form Number ICC16. TT.NCDI.(0916) and are included for illustration purposes only.

   - Monthly benefits and final premiums for the coverage described are subject to underwriting guidelines and issue limits and may require a medical examination.

   - Disability insurance policies contain some contractual features and optional benefits that may not be available in all states. Occupation and significant duties are determined at the time of claim based upon your work activities. The ability to perform the substantial and material duties of your occupation is only one of the factors that determine eligibility for disability benefits. These policies also contain exclusions, limitations and reduction-of-benefit provisions. Eligibility for disability income insurance, additional policy benefits and qualification for benefits is determined on a case-by-case basis. For costs and complete details of coverage, please contact a Northwestern Mutual financial representative.

   - All scenarios assume a qualifying disability and the payment of full monthly benefits on the specified date following the start of disability when benefits begin to accrue continuously through the maximum benefit period.

   - The amount of benefits provided in each hypothetical example depends on the benefits selected, and the premium varies with the amount of benefits selected. Premiums shown for each case study are based on the following:

Issue age 49	Non-Tobacco	Monthly benefits payable to age 70. (Annualized Benefit equals Monthly Benefit times 12.)	3% inflation increase annually – Indexed Income Benefit (IIB)	Total & Partial coverage

   1. Aaron – Business Owner: Illustration No. WIVOG03.79F61737CA. Male, $13,800 Monthly Benefit. Non-Cancellable and Guaranteed Renewable policy. Modified Own Occupation Definition of Total Disability (Dec 2022)

   2. Brian – Surgeon: Illustration No. WIVOG03.C323FFC369. Male, $20,000 Monthly Benefit. Non-Cancellable Guaranteed Renewable. Medical True Own Occupation Definition of Total Disability. (Dec 2022)

   3. Elizabeth – Attorney: Illustration No. WIVOG03.BCF7A7E465. Female. $20,000 Monthly Benefit. Guaranteed Renewable. True Own Occupation Definition of Total Disability. (July 2022)

2. Dividends

   - The individual disability income policies shown are eligible to share in the divisible surplus, if any, of the company (Northwestern Mutual). This divisible surplus is determined each year. The policy's share, if any, will be credited as a dividend on the policy anniversary.

continued

END NOTES: COMMON ASSUMPTIONS CONTINUED

- Decisions concerning the amount and appropriate allocation of divisible surplus are within the sole discretion of the company's Board of Trustees. There is no guaranteed method or formula for the determination or allocation of divisible surplus. The company's approach is subject to change. There is no guarantee of a divisible surplus. Even if there is a divisible surplus, the payment of a dividend on the policy is not guaranteed.
- Dividends will be used to reduce premiums or paid to the owner when premiums are being waived. Other uses of dividends may be made available by the company.
- Illustrated dividends reflect current (2022 scale) claim, expense and investment experience and are not estimates or guarantees for future results. Dividends, if any, actually paid will likely be larger or smaller than those illustrated.

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