Introduction

With the decline in prevalence of defined benefit (DB) plans in favor of defined contribution (DC) plans in the private sector, retirees increasingly bear the responsibility for turning their retirement savings into retirement income. Among the challenges retirees face in doing so are unknown longevity and future investment returns.

Currently, there are two general approaches to creating retirement income: lifetime annuities and structured drawdowns. The Setting Every Community Up for Retirement Enhancement (SECURE) Act, which was enacted in 2019, includes provisions intended to facilitate the offering by plan sponsors of lifetime annuity options in DC plans and the election of such options by plan participants. For more information on the SECURE Act, see the Academy’s 2020 issue brief Impact of the SECURE Act on Retirement Security. It is unclear to what extent these provisions may increase the utilization of lifetime annuities among plan participants, whether the annuity options be fixed, variable, or indexed.

As an alternative to a lifetime annuity, retirees can create a retirement income stream by drawing down their investments in a structured manner. However, this approach will generally create a smaller income (assuming the same underlying return on assets) than that provided by a lifetime annuity, because such structured withdrawals are generally planned for a period that exceeds life expectancy to mitigate the risk of depleting assets if a participant has a longer-than-expected lifetime. However, structured drawdowns maintain the underlying assets until fully utilized. This is more likely if the individual does not live as long as expected. Structured drawdowns lack...
the benefit of longevity pooling that lifetime annuity options can provide. Longevity pooling allows for the redistribution of future income from those who die earlier than expected to those who live longer than expected. Retirees using structured drawdowns also face the risk of premature depletion of assets in the event of adverse investment market conditions.

This issue brief addresses a third approach, Experience-Sharing Lifetime Income (ESLI), which shares features of both lifetime income annuities and structured drawdowns. An ESLI is a non-insured pooled lifetime income vehicle in which the mortality and investment experience is shared directly among all participants.

There is currently no widespread use of ESLIs in the United States because they are not currently permitted under the Employee Retirement Income Security Act of 1974 (ERISA) and other laws governing employer-based retirement programs. However, legislative and regulatory changes could potentially facilitate ESLIs in the future.

ESLIs offer advantages over structured drawdowns, including pooling of longevity risk and professional management of investments and their risks. ESLIs could also provide a larger expected income than traditional fixed-income annuities due to the opportunity to take greater investment risk and the sharing of actual mortality experience among participants (rather than assuming more conservative mortality and reflecting additional margins for risk, as insurers typically do). The experience-sharing mechanism in ESLIs would cause a retiree’s income to vary periodically. Under structured withdrawals, assets are available to the beneficiary upon death, whereas that is not the case with ESLIs. However, ESLIs can be structured to provide a benefit to a beneficiary at death of the participant.

The income payable to a retiree at a given time is determined based on an assumed investment return and mortality assumptions. However, benefits would ultimately\(^1\) be adjusted up or down based on the difference between the actual return and assumed investment experience as well as the difference between the actual and expected mortality experience. As a result, the plan sponsor or other provider has no exposure to unfunded liabilities. This feature helps ensure long-term plan sustainability and could be attractive to plan sponsors that have elected a DC strategy.

\(^1\) Note that ESLIs can be designed to defer some experience in order to smooth out benefit payments. However, an ESLI could be designed to recognize significant losses without regard to smoothing in order to sustain the plan program.

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Experience-Sharing Lifetime Income

Income under an ESLI is initially determined in the same manner as under an annuity, and subsequent income will vary based upon the investment and mortality experience.

The initial ESLI income amount would be determined based on several factors:
- The retiree's age (and the age of the beneficiary, if applicable) when income commences;
- The amount of the retiree's account balance being applied to the ESLI;
- The form of payment elected by the retiree; and
- A set of actuarial assumptions. These assumptions include an assumed rate of return for the underlying investment portfolio, the expected mortality of the covered group, and administrative expenses.

In future years, the income amount is likely to change based on actual experience of investment returns, mortality, and administrative expenses. Because the benefit is life-contingent, the ability to withdraw from an ESLI should be disallowed to prevent individuals in poor health from withdrawing from the pool to the disadvantage of the remaining participants (a form of antiselection). Income amounts might also change in future years if it is appropriate to revise the actuarial assumptions.

ESLIs have some characteristics of traditional lifetime annuities, such as income that will last a lifetime regardless of how long the retiree lives (although the amount of the income may vary) and, at death, assets are reallocated to provide benefits to survivors to the extent not required to pay any death benefits. An advantage of ESLIs compared to traditional lifetime annuities is the potential to achieve a higher income through access to asset classes that offer higher returns than the fixed-income investments that insurers generally utilize for traditional lifetime annuities. If an ESLI (without a death benefit) had an investment policy comparable to that of a typical DB pension plan, it might increase the initial monthly lifetime income by 20% or more for a given cash outlay compared with a traditional lifetime annuity. The risk to the retiree is that income is likely to vary and could potentially be less than with a traditional lifetime annuity if the higher-risk profile of the investment strategy leads to poor investment returns or mortality improvements exceed assumptions.

Compared to the popular approach of generating retirement income by withdrawing from investments on a structured basis, an ESLI is expected to pay out larger income for two reasons. The first is the use of longevity pooling. Under a longevity pooling approach,
income payments are assumed to be made over participants’ pooled life expectancies. In contrast, a structured withdrawal approach generally assumes that payouts will be made over a period in excess of life expectancy to mitigate the risk of depleting assets before the end of a participant’s life; however, if an individual lives for a shorter period than expected, the underlying assets are preserved for beneficiaries. The second reason is that ESLIs would be professionally managed by institutional investors in a similar manner as DB plan assets, which may enhance returns compared to those achieved by less-experienced individual investors.

An ESLI differs from an individual variable annuity sold through an insurance company in several ways. Both approaches provide income that varies with investment experience, but ESLIs share the experience of one or more collective asset pools, whereas the income from a variable annuity varies based on the experience of the investment accounts chosen by each annuitant. Also, the mortality basis is guaranteed by the insurer in a variable annuity, while ESLIs share the experience among the participants. ESLIs likely would be managed by an administrator that need not be an insurer.

**Examples of ESLI-Type Programs**

Plans with ESLI components have been established in several European countries, have been introduced in Canada, are used in some U.S. public employee plans and some “church plans,” are available in 403(b) annuity contracts issued by the Teachers Insurance and Annuity Association of America (TIAA), and were included in proposed legislation introduced in the U.S. Senate in 2014 ([the USA Retirement Funds proposal](#)). Several of these programs are described in more detail below.

**A. U.K. Pension Schemes Act of 2021**

This act provides for the establishment of Collective Defined Contribution (CDC) plans (technically referred to as Collective Money Purchase schemes in the legislation) that share investment and mortality experience among the participants in the plan. Regulations have been proposed but have not yet been finalized.

Note that these changes in U.K. law introducing these programs are a work in progress. Legislation is expected that would allow for a variety of designs. Generally speaking, these plans are intended to provide a specified initial income benefit at retirement age, subject to inflation adjustments. The plans would be funded with a uniform percentage-of-salary contribution for all employees, regardless of age. The plans could be funded by the employer, employee, or a combination. They might be mandatory, voluntary, or a combination of the two.
During retirement, the assets would continue to be pooled. The investment and longevity experience would be shared among the participants, resulting in lifetime income benefits that likely vary from the targeted level. The proposed regulations require annual actuarial valuations and allow the valuation experience to be reflected in the benefits. Experience gains and losses are generally spread over the future expected lifetime of the plan based upon assumptions that include inflation adjustments. However, limitations on benefit reductions may apply. For example, when benefits need to be reduced below the current nominal level, the cut is applied over a specified period up to three years based on the extent of the experience losses.

The plan’s trustees are responsible for setting the assumptions for valuing liabilities, and those valuations are what determine the benefit adjustments. This is subject to the requirement that trustees obtain actuarial advice before making those decisions.

**B. Canada—Variable Payment Life Annuity (VPLA)**

In 2019, the Canadian federal budget introduced the VPLA concept; however, the necessary enabling pension benefits legislation is just now approaching enactment. The legislation would create a new payout option, a VLPA, for members of pooled retirement pension plans (PRPPs) or defined contribution registered pension plans (RPPs). The basic concept would be to allow individual employers to join a program approved by Canadian regulators that would, upon retirement, allow participants to convert a portion of their defined contribution plan balances into a variable retirement income designed to last a lifetime.

These programs would establish a separate “VPLA fund” within the plan, separate from the fund for non-retired employees. The income benefits payable from this separate fund would be adjusted annually based on the underlying investment performance of the VPLA fund and on the longevity experience of VPLA members. There must be at least 10 participating retired members before a VPLA can be established within a pension plan. Prior to reaching this threshold, benefits would be paid out strictly based upon investment experience with no mortality adjustments. Plans could include adjustments based primarily on inflation, and minimum guarantee periods and other optional forms would be permitted.

**C. Wisconsin Retirement System**

In the Wisconsin Retirement System, the retirement benefit level is determined based upon a money purchase plan account balance (jointly funded by the employer and the plan participant). At retirement, the account balance is actuarially converted to an annuity, subject to a minimum annuity benefit based upon a traditional DB plan formula.
An amount equal to the funds required to provide the benefit level is then transferred to an account earmarked for paying retiree benefits. This retiree account is invested in the Core Trust Fund (CTF), a fully diversified balanced fund—e.g., consisting of stocks, bonds, and real estate.

The retirement income level is subject to annual adjustments for investment and mortality experience. To determine the amount of the annual adjustment, the present value of the benefits payable to retirees is compared with the retiree assets (which are subject to five-year smoothing of returns). The amount of overfunding or underfunding based upon this comparison is then used to determine benefit level adjustments. Any unrecognized changes would be used to cover experience different than assumed in future years. The income level is adjusted if the increase or decrease would be at least 0.5%. However, the retirement income cannot be reduced below the original amount determined at retirement, nor can it be increased beyond the cost-of-living increase.

Retirees may opt to have up to 50% of their account invested in a stock fund instead of the CTF. However, this election will increase the volatility of the annual benefit level adjustments and also impact the application of the applicable original benefit level floor.

D. Evangelical Lutheran Church of America Retirement Plan (ELCA)

The ELCA Plan is a non-ERISA defined contribution plan funded by employer contributions and voluntary employee pre-tax contributions (similar to 401(k) deferrals). The employers are parishes and other organizations related to the Evangelical Lutheran Church of America. Plan participants select from a menu of investment choices. Upon retirement, retirees can elect individual retirement arrangement (IRA) rollovers, a systematic withdrawal of funds from their investment accounts, or the option to have some or all of their accounts paid out as an experience-sharing annuity administered by the plan.

The annuity form can be life-only, life with a term-certain, or joint-and-survivorship. The assets to be annuitized are transferred into a separate fund—the ELCA Participating Annuity Trust. The trust is a professionally managed balanced portfolio. The initial annuity payment amount is determined based upon the amount of the account being annuitized, the ages of the participant and co-annuitant (if applicable), an assumed investment rate, assumed mortality for the covered group, and the annuity form selected.

Unlike in a traditional DB plan, these annuity payments are not fixed amounts but change each Jan. 1 based upon the trust experience as of the preceding Sept. 30. The

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3 This feature causes a differentiation from the other programs noted in that it is possible that some experience will not be shared by retirees but could require additional contributions from employers and active employees.
changes reflect the investment performance of the trust, the mortality experience of theetirees who have selected annuities, as well as any changes in the actuarial assumptions
used to value the annuities. The changes in actuarial assumptions reflect changes in the
investment environment and the anticipated mortality experience. These adjustments
to the annuity payments can be either increases or decreases. The adjustment formula
is designed to maintain balance between the trust value and the expected benefit
payments while minimizing annual swings in benefit amounts. The annual income
adjustments are generally limited to one-third of the change in income that would have
applied in the absence of this limitation.\(^4\) The remaining overfunding or underfunding
is not immediately reflected in the change to benefits, but rather is recognized as part
of the funding adjustment the next year using the same methodology. Thus, variances
are reflected in lifetime benefit changes in every subsequent year; however, subsequent
investment and mortality experience are combined with outstanding balances each year
in the benefit adjustment methodology. The difference between the value of the current
expected benefits and the trust value is referred to as either overfunding or underfunding.
The income amount that a retiree receives will be adjusted over time to reflect the degree
of overfunding or underfunding at the time they started receiving benefits.

The potential for larger benefits from this plan design, compared to traditional lifetime
annuities, comes from higher expected investment returns from the trust as well as
lower operating expenses, including elimination of sales compensation costs, insurance
company profits, investment guarantee margins, and mortality guarantee margins. As
an example of how initial benefit determinations under the ELCA plan compare to
a traditional lifetime annuity, a monthly life annuity at age 65 with a 15-year certain
guarantee that could be purchased in June 2022\(^5\) on a retail basis with a $100,000
premium was approximately $597 for males and $576 for females or $587 on a blended
(unisex) basis. The unisex payment in 2022 under the ELCA plan was $652 for an initial
benefit with a $100,000 account balance. Note there is no differentiation in annuity
pricing between males and females under the ELCA plan. The ELCA benefit amount is
higher than the retail annuity benefit amount by approximately 11%.

\(^4\) After annuitizing, monthly annuity payments are adjusted by the administrator, typically each January. Periodic adjustments are based
currently on the investment fund's funded ratio as of Sept. 30 of the prior year. The plan manager retains the absolute, sole discretion
to change the adjustment methodology at any time without notice. The current method provides that if the funded ratio is 1.000, no
adjustment will be made. If the funded ratio is greater than or less than 1.000, annuity payments may be adjusted according to the following
guidelines: (a) If the funded ratio is greater than 1.000, annuity payments increase by 1/3 of the surplus. (b) If the funded ratio is less than
1.000, but greater than 0.850, annuity payments decrease by 1/3 of the shortfall. (c) If the funded ratio is equal to or less than 0.850, but
greater than 0.750, the decrease will be 5% plus 50% of the funding shortfall below 0.850. (d) If the funded ratio is equal to or less than
0.750, the decrease will be 10% plus 100% of the funding shortfall below 0.750.

\(^5\) Immediateannuity.com.
E. USA Retirement Funds Proposal

The USA Retirement Funds proposal introduced by Sen. Tom Harkin in 2014 would create privately run, hybrid pension plans that incorporate many of the benefits of traditional pensions while substantially reducing the burden on employers. Under this proposal, there would be universal access to USA Retirement Funds through employers’ existing payroll withholding systems, and anyone participating would gain access to a convenient and portable source of retirement income.

USA Retirement Funds would use professional asset management and provide participants a way to pool their risk with other active employees and retirees.

At retirement, the funds would provide lifetime income based on contributions and returns, with benefits being slowly adjusted for the pooled asset performance and aggregate mortality experience of the funds. Assumptions would be set by regulators. Fund investments would be designed to narrow the variability of benefits by fostering risk hedging and allowing for pricing benefits and guarantees. Use of large-scale pooling and professional management would promote economies of scale and efficient use of markets and provider competition would be designed to potentially keep costs low and favor plans with good investment performance.

Market risks to USA Retirement Funds would be asymmetric—favorable performance would result in benefit increases, but unfavorable performance beyond negative 5% would require regulatory approval to make sufficient downward adjustments to benefits. USA Retirement Funds would need to be approved by and would be regulated by the Department of Labor.

As of the publication of this issue brief, the USA Retirement Funds proposal is no longer being considered in Congress.

Potential Sponsors of ESLIs

The following section summarizes the types of entities that might offer ESLI programs. Note that not all of them may currently be permitted to offer ESLIs due to legal or regulatory restrictions. However, this could change in the future.

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6 “(T)he level of benefits paid may be adjusted periodically in order to reflect the mortality experience and the investment experience of the Fund, but only after the Fund has obtained a certification from a member of the American Academy of Actuaries that the adjustment is sustainable for the remaining lifetime of participants then receiving benefits, based on the mortality tables and interest rates prescribed under subparagraph (C) by the Secretary for that time.”
A. *Single-employer plans:* Most retirement plans are sponsored by single employers. However, the use of an ESLI requires a critical mass of participants to reduce volatility in the pooling of investment and longevity risk. As a result, small employers would generally not be in a position to use this approach.

B. *Multiple employer plans:* The SECURE Act enabled the establishment of Pooled Employer Plans (PEPs), significantly increasing the options for multiple employers to participate in a single retirement plan. Such plans could be an option for smaller employers as well as larger employers.

C. *Independent organizations:* Standalone entities unrelated to employer plans can theoretically sponsor ESLIs. A retiree would simply transfer funds from a retirement plan or IRA to an ESLI provider, which in turn would provide the monthly income. Such organizations could be insurance companies, financial institutions, recordkeepers, and possibly other entities.

D. *State and local governments:* The past decade has shown growth in plans established through state and local government initiatives. These programs offer retirement coverage for individuals whose employers do not offer a retirement plan. State and local governments could similarly offer ESLIs, or rely on other entities for administration of ESLIs, based on funds contributed through these state and local initiatives.

**ESLI Assumptions and Designs**

There are many elements that go into the design of a program that relies on an ESLI approach. Actuarial assumptions as to expected rates of return and mortality are needed both to determine initial retirement income levels and to adjust income levels for differences between actual and expected experience. The assumptions also need to be monitored on an ongoing basis in the event they need to be modified to reflect changes in future investment or mortality expectations.

*Expected rates of return:* The investment return assumed in the determination of annual income should be related to the long-term expected return of the underlying portfolio to help stabilize income over time. Also, as capital market expectations or the portfolio composition change over time, it will likely be necessary to revise the investment return assumptions. The expected investment return can be determined on an implicit basis net of expenses, or the expenses can be accounted for explicitly.
Mortality: The mortality assumption used for determining benefits and the mortality assumption used for valuing the plan liability may differ. There may be a regulatory requirement to use unisex tables in the determination of the actual benefit amounts. However, sex-distinct tables are likely the preferable approach for the valuation of the benefits to determine the plan liability. Some other issues for consideration in the selection of mortality assumptions include:

- Mortality assumptions should be chosen by the sponsor with the advice of a qualified professional and should be reasonable based upon the demographics of the covered group, subject to any legislative restrictions.
- Assuming the program is voluntary, the mortality assumptions should reflect adverse selection (i.e., healthier retirees may be more likely to participate).
- To help address intergenerational equity, the table should be dynamic with assumptions for annual improvements in longevity to the extent appropriate.

Benefit structure (annuity form): The simplest design is a life-only income; however, certain-and-life, return-of contribution, or joint-and-survivor benefits could be provided to mitigate the risk of significant loss to an individual participant (or their beneficiaries) upon an early death. While this would reduce the mortality experience sharing among the survivors, it may also encourage participants to join the plan.

Income adjustment: The program also needs to have a predetermined manner of adjusting income levels periodically to reflect experience different from that assumed. The most basic design might simply be to adjust the income level annually in recognition of the most recent mortality and investment experience and any changes to future assumptions that are appropriate. Each income amount would have the appropriate payout factor applied based on age and annuity form (and possibly sex), with those results combined to determine total liability. To the extent that total assets are greater or less than this total liability, all benefits would be increased or reduced proportionally. Such an approach could cause significant changes in income amounts, something that could be undesirable, especially when benefits would decrease.

There are several possible designs that could be used to manage the income level and prevent significant periodic changes. Note that these design alternatives could still result in over- or under-funding in the near term.

1. A floor and/or ceiling on the amount of annual adjustment in income,
2. The recognition of only a portion of any experience gains or losses, or
3. External hedging to mitigate some exposure to potential large fluctuations in benefits.

It may be possible to arrange for the purchase of insurance longevity swaps to mitigate some mortality losses.

7 Swaps would be most useful in the early stages of a plan when insufficient scale would most likely apply.
It is possible that severe adverse experience could cause these design features to become unsustainable, which would require even larger adjustments.

Investments

ESLI investments would likely resemble those of an ongoing defined benefit plan, such as a balanced portfolio of fixed-income and equity investments, potentially including both public and private securities. A balance between expected return and volatility should be sought. Cash-flow matching of short-term anticipated payouts could also be appropriate in order to minimize reinvestment risk.

Some ESLI programs might utilize a specified investment mix in the pre-retirement stage to limit the potential for significant downside exposure at the point of conversion to the ESLI.

Sustainability of retirement income for the participating retirees is critical. Thus, sponsors must periodically test whether the assumed rate of return and assumed mortality in the payout factors used to determine annual income amounts will likely be able to sustain current income levels decades into the future.

Another possibility would be for a sponsor to offer alternative ESLIs, each with a different underlying asset allocation. This would allow retirees to choose among expected retirement income levels that range from lower and more stable to higher with more volatility. Because critical mass would be required for each of the alternative ESLIs, this approach would be practical only for very large plans.

Legal and Regulatory Issues

Any ESLI program would require a legal document outlining all components of the program.

ESLIs have some similarity to tontines, which are illegal in some jurisdictions; however, their differences are significant. Tontines historically were sold to a closed group and paid large amounts to a few survivors, which made them a moral hazard risk. In contrast to this, ESLIs would have continuing enrollment and share mortality gains (and losses) with the entire pool of membership on an annual basis. For these reasons, ESLIs may be deemed not to be tontines and, thus, may avoid that legal hurdle.

8 It may be possible to offer separate investment options but still pool the overall mortality experience.
It is not clear whether state insurance departments might take the position that ESLIs should be regulated as insurance. ESLIs do not seem to fit into any existing insurance structure and do not require the involvement of an insurer. However, it is possible that state insurance regulators may want to provide oversight, because the financial management of such programs has some similarities to annuity reserving, such as in the choice of assumptions that determine the annual payouts. Additionally, insurance regulators view one of their roles as protecting consumers, and they may want to extend that role to ESLIs, which would operate much like the annuities that they oversee.

From a federal perspective, an ESLI does not seem to fit into any type of approved plan structure under ERISA. It is neither a defined benefit plan nor a recognized component of a defined contribution plan. Were ERISA to be amended to allow an ESLI program, it could preempt any state insurance rules. If permitted under federal legislation, it is likely that the Internal Revenue Service and the Department of Labor would be given broad oversight to regulate, among other areas:

- Actuarial assumptions being used
- Methods for adjusting income
- Asset allocation
- Management and disclosure of over- and underfunding, if applicable
- Audit requirements

ESLIs may pose questions regarding tax and employee benefit laws, and possibly securities laws as well. At this time, the details of those questions, if any, and how they may be resolved, remain unclear.

**Challenges to ESLIs**

**Annuity Reluctance**

Individuals have demonstrated a preference for managing a retirement portfolio over committing to receive periodic income payments. This runs counter to surveys in which individuals have claimed to prefer reliable retirement income. This phenomenon is sometimes referred to as the “annuity puzzle.” Whether ESLIs can overcome this challenge by offering greater periodic benefits in exchange for a variable income level can be known only once ESLIs are made available. The introduction of ESLIs will require greater participant education regarding longevity risk.
Antiselection
If ESLIs are offered on a purely voluntary basis, one can argue it is likely that only those individuals with longer-than-average self-perceived life expectancies will join an ESLI, because this is the group that would expect to benefit the most from such a program. However, it is also possible that many individuals with longer self-perceived life expectancies are those with the greatest retirement savings and may not see the need for an ESLI and therefore would not participate.

Avoiding Tontine Structures
ESLIs share some common features with tontines. The original tontine designs provided that closed groups be used, and the vast majority of the funds inured to those who lived the longest. To avoid this under an ESLI structure, new entrants should be brought into the group.

Start-Up
There is a critical mass\(^9\) needed for effective mortality pooling as well as effective institutional investing. This may be challenging in a voluntary-only application. It is possible that an ESLI at the start-up would be run like a managed payout fund without longevity pooling and converted once the critical mass has been achieved. This approach has been adopted under Canadian VPLAs as noted earlier.

Closing an ESLI
ESLIs should generally be established on an ongoing and permanent basis. However, it is clear there will be situations where that is not possible, and contingencies need to be put in place for such an eventuality. One possibility would be to merge into another ESLI. Another approach would be to close out through purchase of insured annuities if the pool were to become too small. An alternative might also be for a governmental agency to take over these “orphaned” plans.

Participant Education
It is critical that retirees fully understand the risks associated with opting into an ESLI. They must be fully aware of the lack of liquidity as well as the possibility that their income could decrease. Additionally, any payments to beneficiaries at death would be limited to the amounts available under the payout option—e.g., none if life-only, or remaining certain-period payouts under a certain-and-life payout, survivor payouts under joint-and-survivor payout option, and remaining amount under a return-of-contribution option. Similar to the individual drawdown approach, investment performance can

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9 Critical mass is a consideration for the number of participants needed to keep mortality-based income adjustments acceptably low. This will be based upon the judgment of the plan sponsor with the help of advisers. For example, assume 50 participants in a plan where expected mortality is 1.5% and the expected number of deaths is 0.75. If no deaths occur, monthly income would be decreased 1.5%. If one death occurred, there would be a 0.5% increase in the income level. If two deaths occurred, income would be increased 2.5%. If there are 25 participants, there would be a 1.5% decrease with no deaths, a 2.5% increase with one death and a 6.5% increase with two deaths.
cause a drop in income or potentially a discontinuance of income entirely. In addition, significant improvements in life expectancies due to elimination of disease or improved health care may also negatively impact future periodic benefits.

**Assumption Selection**

Because both the initial benefit and any subsequent adjustments are extremely assumption-dependent, the question of who sets those assumptions and how they are determined is of paramount importance. The selection means that the fiduciaries will have to act solely in the best interests of the ESLI participants and their beneficiaries, where applicable, without interference from the plan sponsor or investment manager. Alternatively, regulators may be inclined to exert control.

**Conclusion**

The introduction of ESLI programs in the U.S. would clearly present some challenges. However, it could also provide millions of Americans with an alternative approach for receiving reliable lifetime income through longevity and investment pooling. ESLIs have features that differ from both insured income annuities and an individual drawdown approach. Some of these features could be attractive to retirees.

The ESLI concept is now being used in many other countries. The Society of Actuaries has addressed this topic in a more technical manner. As mentioned earlier, legislation was introduced by Sen. Tom Harkin in 2014 that would establish USA Retirement Funds and include the ESLI concept. While this proposal is no longer being considered by Congress at this time, a time may come when longevity and investment pooling ideas are reintroduced in Congress.