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# Longevity Pooling Variable Pensions

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## Executive Summary

The multi-decade transition from Defined Benefit (DB) pension plans to Defined Contribution (DC) plans (mostly 401k plans) has reduced retiree access to reliable lifetime income that eliminated retiree longevity and investment risk. The prevalent lifetime income options for retirees in a DC system include (1) a systematic drawdown of their retirement accounts or (2) the purchase of annuities whereby risk is transferred to an insurance company. While both of these strategies have some advantages, a third option may result in greater lifetime retirement income for the same amount of retirement savings. Specifically, a longevity pooling strategy can result in 26% higher benefits when compared to a systematic drawdown strategy, and 17% higher benefits when compared to an immediate annuity at age 65.

As with any other option, there are disadvantages, specifically for small employers, and individuals who have lower life expectancy. The mandating of longevity pooling is not appropriate due to these disparities. One of its main advantages is the opportunity to leverage retirement savings to increase retirement income, which may be particularly beneficial for those who may not have significant accumulations but need to mitigate longevity risk.



Find this report on the web [here](#). For more information about the report, contact:

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## The Changing US Retirement Security Landscape

The multi-decade transition from Defined Benefit (DB) pension plans to Defined Contribution (DC) plans (mostly 401k plans) has reduced retiree access to reliable lifetime income that eliminated retiree longevity and investment risk. The prevalent lifetime income options for retirees in a DC system include (1) a systematic drawdown of their retirement accounts or (2) the purchase of annuities whereby risk is transferred to an insurance company.

Under the drawdown option, or flexible retirement income, individuals must insure against longevity risk on their own by managing withdrawals based on their personal estimates of life expectancy, long-term care expenditures, and other adverse events. They are simultaneously responsible for investment decisions that may create additional volatility as well as suboptimal investment returns. There are some advantages to a drawdown approach, such as maintaining control of one's nest egg and the opportunity to leave unused retirement savings to spouses or children. The tradeoff for this control of funds and potential for passing on to heirs is lesser retirement income, which will be addressed later in this brief. Additionally, individuals may overconsume (and run out of retirement savings), or under-consume if they are worried about running out of money (underconsumption is particularly concerning when not meeting basic needs).

The traditional insured annuity alternative is a contract with a life insurance company that you purchase with all or a portion of your retirement savings. An immediate annuity will pay a fixed amount to individuals throughout their lives, typically starting at age 65. In comparison, an advanced life deferred annuity requires a smaller share of accumulated assets and begins payments as late as age 85. It is important to note that annuities can be paid out in many forms that are structured to not only pay a lifetime benefit to the individual but also to a designated beneficiary. The benefit payable to the beneficiary can be equal to the amount payable to the individual or a percentage of that amount. Annuities can also be structured to pay out benefits for a minimum number of years or until the full amount of the premium has been paid out. Adding any death and survivor features reduces the monthly amount of annuity payable based upon a set premium.

An annuity generates more stable lifetime income than any individual drawdown strategy because of the pooling of mortality risk. However, annuity pricing relies on conservative assumptions and potentially high insurer expenses due to adverse selection (the risk that individuals with longer life expectancy will choose to buy those products). A tiny fraction of DC plans allow plan participants to purchase annuities through the plan, but most individuals must initiate the purchase on their own through their rollover IRAs, which may be a complicated transaction for some. There is documented lack of understanding of annuities, with only 40 percent of Americans reporting some knowledge about annuities and how they play a role in lifetime income.<sup>1</sup> Irrational behavioral biases have also been identified as factors leading to the reluctance to purchase an annuity.<sup>2</sup> Individuals have a difficult time handing off their lifetime's retirement savings in exchange for a guaranteed stream of income in the future, even when on average they prefer guaranteed and predictable income.

Though there has been significant legislation over the last several decades in the retirement plan arena, it has primarily been focused on increased access to and utilization of retirement plans. Not enough has been initiated with respect to how retirees use retirement funds to provide lifetime income. This Issue Brief is focused on possible legislation that would offer a third alternative to the two noted above in achieving reliable retiree income.

### The Third Option

This option would permit for the pooling of risk directly among retirees. This would result in variable payments based upon both the investment experience of the accounts and mortality experience of the participating retirees. This option was included as a feature of Senator Harkin's 2014 USA Retirement Funds legislative proposal.<sup>3</sup> Senator Harkin's proposal never became law, though likely for reasons not related to the variable benefit payout provision.

Allowing variable retirement benefits based upon investment performance is currently permitted under ERISA. However, DC Plans and IRAs are generally precluded from providing retiree longevity pooled variable benefits.<sup>4</sup> There is greater variability in predicting investment returns than in predicting the mortality experience (unless very conservative investments are used) of a significantly large enough group of retirees. To

allow for variable income that adjusts based on the mortality experience of the covered retirees, Congress would need to enact new legislation.

Retiree longevity pooling programs, if allowed through new legislation, should require an administrator approved by regulators. They can be made available in retirement plans, pooled employer plans or through IRAs. Individuals would voluntarily be permitted to join the pool with a level of funds they choose. Minimums would exist for purposes of economy of scale. The decision to enter the pool would be irreversible after a certain period of time in order to prevent adverse selection to the pool. This would be set by the administrator subject to regulations. Funds would be collectively invested in a single investment pool with funds from other retirees. Alternate pools could be made available with different levels of investment risk that the individual could choose from.

Based upon an assumed rate of return of the pool of funds, as well as the expected mortality of the participating individuals, a determination is made for each individual based upon their age, and sex<sup>5</sup>, of the benefit amount that can be supported by their funds. On an annual basis (or more frequently) the amount of the benefit payment is adjusted based upon the actual investment and mortality experience of the funds and participating individuals. This could cause the benefit levels to increase or decrease. The extent of the fluctuation would be impacted by the underlying investments. Those concerned about volatility would opt for a pool that used more conservative investments. In addition, the plan administrator may alter the investment return and mortality assumptions periodically subject to regulatory limitations. The impact of experience or assumption changes could be absorbed in a single year or spread over a period of years to limit fluctuations. Individuals would also have the option at the outset to have their benefits paid out based upon a form that provides a death benefit to a beneficiary. Adding the option for survivor benefits would reduce the amount of the individual's benefits based upon an actuarial adjustment.

## The Value of this Alternative

These variable benefits would in turn provide significantly larger income payouts than an arrangement without longevity pooling; all other things being the same. This approach would also most likely provide for a greater

income level than purchasing an annuity. We compare longevity pooling to the drawdown strategy and an immediate annuity starting at age 65.

Using longevity pooling as compared to a drawdown without longevity pooling, a 65-year-old in average health, can expect an additional five years of level payments on average. Looking at it differently, he or she can expect 26% higher benefits for the same number of years. As an example, assume a 65-year-old in average health has a life expectancy of 22 years. This individual has \$100,000 that he or she may use to provide retirement income. Under a drawdown approach the total benefits expected to be paid are \$143,000. Using longevity pooling it increases to \$180,000.<sup>6</sup> There is also an advantage available when comparing this retiree longevity pooling with insured income annuities. \$100,000 can purchase a \$7,000 per year annuity which over 22 years provides \$154,000.<sup>7</sup> The retiree longevity pooling total of \$180,000 is 17% greater.<sup>8</sup>

## Where Else Is Retiree Longevity Pooling Used

Longevity pooling can be found under different arrangements and names, including tontines and collective defined contribution plans. A tontine is a longevity-protected income solution that pools contributions from individuals in a fund that pays out benefits to everyone upon survival, with irrevocable contributions to the fund. Traditional type tontines pay increasing benefits as the pool of survivors decreases and benefits are adjusted as beneficiaries participating in the pool die. Modern day tontines build into their structure an anticipation of future deaths thus leveling payouts and making it better suited for retirement income applications. Collective Defined Contribution (CDC) plans combine contributions together into a single fund that creates an income stream for beneficiaries. Both of these plans can generate lifetime retirement income higher than that of individual payout approaches, assuming the same rates of investment return.

Tontines have a long history and are widely used in Europe and other countries as a retirement income option. Capital investment tontines have existed in Europe since the 17th century; however, back then, the main purpose was to finance government expenditures for public works and wars.<sup>9</sup> Retiree longevity pooling has been used in the U.S. in DC church plans, which are not subject to ERISA rules. It is also used with the

TIAA CREF variable income annuity option, which is available only to teachers and some nonprofit employees. It is also a part of the primary approach to retirement income programs throughout Europe and more recently in Canada and the United Kingdom. CDC plans and tontines have been implemented in countries like the Netherlands, the U.K., and Canada. Tontines are typically used to supplement traditional government or employer pensions.

## Issues to Consider

Among the issues that would be faced in permitting this approach include:

- a. Which type of entities would sponsor these programs: employers, unions, Pooled Employer Plans, etc.
- b. Determining the level of government oversight by the Internal Revenue Service and Department of Labor on program requirements including benefit level adjustments
- c. Having a critical mass of participating retirees to make programs economically feasible and cost-efficient
- d. Bringing newer participants into the program while minimizing the impact of intergenerational inequities<sup>10</sup>
- e. Educating retirees on the pros and cons of not only this option but the alternatives: individual drawdown approaches and insured annuities
- f. How payouts would be structured to prevent issues that traditional tontines face<sup>11</sup>
- g. What types of organizations would administer these programs<sup>12</sup>

The mandating of retiree longevity pooling is not appropriate. Many employer plans are not large enough to efficiently offer such an option. Some employees, especially those in poor health would not see the benefit. Whether employers, IRA sponsors or Pooled Employer Plan providers (PEPs) would be open to allowing longevity pooling is hard to predict.

New legislation should consider the impact on Diversity Equity Inclusion (DEI) issues given the multiple disparities across racial and ethnic groups in connection with retirement plan access, retirement plan participation, ownership of retirement assets, overall savings, and saving specifically for retirement.<sup>13</sup> DC plans and IRAs place the responsibility for creating lifetime income strategies on the individual. This requires a level of financial literacy or access to competent advisers. Lower income individuals may have neither. Today, financial literacy does not

guarantee the optimization of DC plan benefits, which is often why retiree longevity pooling programs might offer more security, not to mention that financial literacy is unevenly distributed throughout society.

Financial literacy is defined as a measurement of the financial, credit, and debt-management knowledge necessary for making responsible financial decisions and shares a positive correlation with both saving and retirement planning.<sup>14</sup> For example, Asian/Asian Americans and whites usually score higher than Blacks/African Americans and Hispanic/Latinos on measures of financial literacy.<sup>15</sup> Those who score higher are more likely to plan and save for retirement, have non-retirement savings, be less financially fragile and track their spending. Having access to efficient and easy to use lifetime income options will benefit them the most. Since this would be an option and not a mandate, those expecting shorter lifespans could choose not to elect this option. However, it may be advisable (or potentially required) to include an optional feature that would provide a beneficiary death benefit. This feature might increase the pool of individuals opting to participate in a program.

Retiree longevity pooling is an option that can be used in place of or alongside insured annuities and/or individual drawdowns. It offers greater income potential than either of the other two approaches but with some limitations and risks. The largest benefactors would likely be those in good health without access to quality financial advice and with limited desire to leave a legacy.

# Sources

<sup>1</sup> Antonelli and Mungiello (2022). Securing a Reliable Income in Retirement, Proceedings of the 2021 Policy Innovation Forum, Georgetown University Center for Retirement Initiatives. <https://cri.georgetown.edu/wp-content/uploads/2022/06/Is-It-Possible-to-Build-a-21st-Century-Personal-Pension.pdf>

<sup>2</sup> Munnell, Wettstein, and Hou (2019). How Best to Annuitize Defined Contribution Assets? CRR WP 2019-13, <https://crr.bc.edu/working-papers/how-best-to-annuitize-defined-contribution-assets/>

<sup>3</sup> USA Retirement Funds Summary: <https://harkininstitute.drake.edu/wp-content/uploads/sites/103/2021/09/USARF-Summary-Long.pdf>

<sup>4</sup> Exceptions are certain Church Plans and participants in TIAA CREF.

<sup>5</sup> Must use unisex factors under ERISA plans but not IRAs.

<sup>6</sup> Based on a 5% investment return and the mortality table under IRC Section 417e unisex factors.

<sup>7</sup> Based on average of quotes for male and female from Immediate [Annuities.com](https://www.immediateannuities.com) during June 2022.

<sup>8</sup> For more detailed actuarial modeling see the original article which provided the basis for this policy brief. Shemtob (2022). Time to Take the Plunge, <https://contingencies.org/time-to-take-the-plunge/>

<sup>9</sup> For a thorough analysis of the tontine principles and a brief historical overview, please see the Brookings report by Iwry, Haldeman, Gale and John (2020). Retirement Tontines: Using a Classical Finance Mechanism as an Alternative Source of Retirement Income. <https://www.brookings.edu/research/retirement-tontines-using-a-classical-finance-mechanism-as-an-alternative-source-of-retirement-income/>

<sup>10</sup> This is an issue when experience or assumption changes are not fully recognized but spread over a period of time.

<sup>11</sup> Traditional tontines provide for ever increasing payments to survivors and do not consider mortality in initial benefit payouts.

<sup>12</sup> Insurance companies are well positioned to administer these programs even though there is no insurance element involved. Other organizations financial and others might also be able to administer.

<sup>13</sup> Larocque, Kaul, Matson, and Risk & Regulatory Consulting, LLC (2022). Disparities in the Pursuit of Financial Security in Retirement by Race and Ethnicity: A Review of the Disparities and Key Metrics to Monitor Them in the Future, SOA Research Institute.

<sup>14</sup> Id at 25.

<sup>15</sup> Id at 5.

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