

# PENSION DISCUSSION PAPER# I

*Defined Benefit Pensions vs. Defined Contribution “Pensions”: Or,  
Why 🎵 One a These Things Is Not Like the Other 🎵*

**Larry Patriquin**



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From time to time, we all worry (or should worry) about our pensions. But if we were to make a list of all the anxieties that keep us tossing and turning at night, pensions might understandably be near the bottom of that list. We must attend to the here and now, the daily matters at work and home which require our immediate attention. We can concern ourselves with pensions when the time comes – perhaps in the few years before we hang up our whiteboard markers and rollerblade off into the sunset. But I want to suggest to you, fellow NUFA Members, that our pensions need to move further – much further – up our “worry lists.”

The impression that we don’t need to bother much about our retirement security perhaps rests on the striking resemblance between the terms “defined benefit pension” and “defined contribution pension.” Evidently, some clever marketing was involved in trying to make these radically different retirement vehicles sound similar. For starters, both contain the word “defined.” “That’s good,” we think, because we like things that are defined (or definitive), especially when it comes to our incomes. More importantly, both contain the word “pension.” “That’s a relief,” we conclude. “We’ll certainly need one of those.” And yet, despite the attempts to gloss over the differences, and make these two sound roughly analogous, we will see, as the old *Sesame Street* song put it, that “one a these things is not like the other.”

The point of this Pension Discussion Paper is to make it clear to Members who are not enrolled in the Ontario Teachers’ Pension Plan (TPP) that *you do not have a pension*. “But,” you protest, “how can that be? Isn’t Article 32 in the FASBU collective agreement titled ‘Nipissing University Pension Plan’? What could be clearer than that?” As it turns out, we do have some form of a “pension.” But it suffers from a number of fundamental weaknesses

which will leave Nipissing faculty much poorer in retirement than faculty at almost every other university in Ontario.

This paper begins by contrasting defined benefit (DB) pensions in Section 1 against defined contribution (DC) “pensions” in Section 2.<sup>1</sup> Sections 3, 4, and 5 focus on the costs of DC plans to employees like NUFA Members; the potential incomes of retirees in DC and DB plans; and survivor benefits and inflation protection (or the lack thereof) in DC and DB plans. Section 6 serves as a conclusion, addressing the question of where we go next, specifically: Is there any way that we can transfer into a DB plan?

## **I. What is a Defined Benefit (DB) Pension?**

### ***Objective***

The objective of a DB pension, such as the TPP, is to provide each individual and their spouse with a predictable, guaranteed income from the day the plan member retires until the end of both their lives.

### ***Contributions***

Employee and employer contributions are invested in large pension funds, which in some cases have tens of thousands of members who are pooling their resources and hence sharing their risks.

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<sup>1</sup> Based on HOOPP 2016a.

### ***Investments***

Investment decisions are made by teams of professionals with expertise in, among other things, investment portfolio management and risk management.

### ***Pension at Retirement***

Your pension at retirement is based on a set formula. It ensures that the higher your salary, and the more years you are employed, the higher your pension will be. You will know how this formula works on the day you are hired into your job, and it is unlikely that it will change much over the course of your career. As a result, on your first day of work, you should have a fairly good idea of what your pension will be and the comfort of knowing that that amount will be guaranteed for life. This is why it is called a *defined benefit*.

### ***Survivor Benefits and Inflation Protection***

Almost all DB pensions have benefits for a surviving spouse, usually a set percentage of the plan member's pension. In addition, DB pensions typically have some protection against increases in the cost-of-living, which will undoubtedly occur over one's retirement, a period that averages almost 25 years for individuals in the post-secondary sector who retire at age 65.

## **2. What is a Defined Contribution (DC) Plan?**

### ***Objective***

The objective of a DC plan is to help individuals save money for their retirement. In effect, a DC plan is *not* a pension. Rather, it is a tax-deferred savings account, with the monies deposited in a privately-held Capital Accumulation Plan (CAP). As York University professor of finance Moshe Milevsky (2010) has noted, even if you have \$1 million in a CAP, you still

don't have a pension. Why not? Because, he says, a properly constituted pension means that, as far as your retirement income goes, you have "no worries, no concerns or risks," including the risk of outliving your pension.

### ***Contributions***

Employee and employer contributions are placed in personal CAPs, where resources are not pooled and where individuals must shoulder all investment risks. In theory, individuals amass all the rewards as well, but as we shall see, these "rewards" are not all they are cracked up to be.

### ***Investments***

Investment decisions are made by individuals enrolled in the plan, usually from a menu of options provided by a for-profit financial services company.

### ***Income at Retirement***

Retirees use the money in their CAPs to purchase either a Life Income Fund (LIF) or an annuity (a form of guaranteed annual income). These two financial products are in some ways similar to pensions. However, the differences are so stark (more on this below) that these financial products might be better referred to as "pseudo-pensions."

### ***Survivor Benefits and Inflation Protection***

If you purchase an annuity, you can choose to add in survivor benefits and inflation protection, but these "upgrades" come with an expensive price tag, and so will significantly reduce your annual revenue stream. If you continue to invest using a LIF, you may get inflation protection, but only if you are someone who is both financially savvy and somewhat lucky. Your spouse would inherit a substantial amount of money if you died (relatively

shortly) after you retired. However, your spouse would inherit nothing if you both outlived the money in your LIF account.

### 3. The Costs of DC Plans to Employees

The goal of a DB plan is to provide an adequate income to pensioners, while creating this income in the most efficient manner possible. *For the same amount of money invested*, DB plans produce significantly higher pensions than DC plans (that is, they obtain the “biggest bank for buck”). The most recent American study has shown that, on average, acquiring the same pension in a DB plan requires 48% less in contributions compared to a DC plan (Fornia and Rhee 2014, 12). This is the case for three reasons. First, DB plans pool “longevity risks” within and across generations. “Because DB plans need to fund only the *average* life expectancy of the group, rather than the *maximum* life expectancy for all individuals in the plan, less money needs to be accumulated in the pension fund.” Second, DC plans have less diversified portfolios that focus on “more secure but lower-returning asset classes.” And third, DC plans have higher management fees. The result of all this is that DB plans are able to generate superior investment returns.

In creating a model pension, a basic principle which needs to be followed is that “ordinary plan members should neither be expected to be investment experts nor to understand life-cycle investing” (Brown and McInnes 2014, 11). But that is precisely what DC pensions force us to be (and to understand). In a DC plan, we must make investment choices on our own, from a series of options provided by a company like Standard Life/Manulife. Unfortunately, some risk-averse plan members end up with conservative portfolios, filled, for example, with guaranteed investment certificates (GICs), which generate minimal returns.

Other members don't actively monitor their accounts or keep current with emerging economic trends, like near-zero interest rates, which affect how well bonds will do. Even the active monitoring of accounts can be a problem, however. It is well known that some DC members engage in "panic selling," so for instance they purchase stocks when their prices are relatively high, selling them at their low points in the midst of market meltdowns, rather than waiting a few years for prices to bounce back.

DC members also suffer as a result of a cautious strategy that is perfectly understandable, even necessary. As individuals, it is wise to be a bit more conservative with investments as we approach the last five or ten years of our careers. We need to limit the damage to our CAP accounts that can occur as a result of the violent swings in equity prices, which seem to happen roughly every half-decade. This conservatism means that, in the process of trying to sidestep a meltdown, our accounts will take a financial hit. Even worse, the more cautious strategy required in our last 10 or so years as an employee/investor will need to be replicated in some ways during the potentially 30 or more years we may spend as a retiree/investor. This is perhaps the key reason why we cannot hope to compete with DB plans. Indeed,

much of the investment returns that drive DB pension plans come from returns made during the individual's period of retirement. In existing pooled DC arrangements, at retirement the amount accumulated in an individual's account is turned over to the individual, and the benefits of low-cost professional management are lost for the subsequent period of the individual's retirement. By one estimate, 60 cents of every dollar of retirement income is earned after [the individual has taken] retirement. (Brown and McInnes 2014, 24)

How do different ways of investing workers' contributions affect the pensions produced by DC and DB plans? We have some evidence from a 2011 arbitration hearing which examined the pensions of Air Canada employees. In preparation for the hearing, the Canadian Auto

Workers hired the consulting firm Services Actuariels Poulin to conduct a study of the DB plan (which employees wanted to keep) and a potential DC plan (which the company wanted to move workers into). The consultants examined a typical new Air Canada employee who contributes a total of 12% of their income to the pension and works for 28 years. They came to the conclusion that *even with identical contributions*, the DB pension would pay out \$22,700 per year. Meanwhile, the DC pension would pay out only \$16,100 per year (Stanford 2012). The DC pension would have to increase by a whopping 41% to equal its DB counterpart.

Here is another eye-opening comparison. When the provincial government created its proposed Ontario Registered Pension Plan (ORPP), with total employee-employer contributions of 3.8%, it said it would exempt from the ORPP employers who had enrolled their workers in a similar plan. The government originally ruled that DC plans were not similar, which prompted howls of protest from the financial services industry. The government relented, but then it had to figure out what an equivalent DC plan would look like. It put its actuaries to work on the question, and they concluded that a DC plan would have to have total contributions of 8.0% in order to produce a similar pension. “In other words, retirement savings through the ORPP are more than twice as efficient as retirement savings through a DC plan” (Mackenzie 2016).<sup>2</sup>

The ability of a DC plan member to cobble together a decent pension, then, has always been difficult, in comparison to workers in a DB plan. But this arguably became even more challenging with the advent of the financial crisis in 2008. How so? Actuarial consulting

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<sup>2</sup> The ORPP was cancelled as part of a recent federal-provincial agreement to increase the benefits provided by the Canada Pension Plan.



firm Eckler Ltd. has examined the data of a typical DC plan member over the last decade. This was an individual with a salary of \$60,000, with total annual contributions of 10% starting at age 40, who retired at age 65 with maximum Old Age Security (OAS) and Canada Pension Plan (CPP) benefits, and who purchased an annuity with their CAP savings. A member retiring in 2006, before the crisis hit, would have been able to replace 88% of their pre-retirement income. By 2013, this rate had fallen to 61% (Eckler 2013) and had fallen even further, to 57% by early 2016 (Eckler 2016). Note that *none* of this decline is related to OAS and CPP pensions, which are defined benefit plans that are fully indexed to inflation. The loss relates entirely to the structure of DC plans and the cost of annuities. Commenting on this disastrous situation in 2013, Janice Holman, principal in Eckler's Toronto office, said:

When most CAPs were created in the mid-to-late 1990s and early 2000s, the combination of moderate interest rates, solid equity returns, and government benefits provided a very comfortable retirement income for most CAP members. What is shocking is how quickly the story changed. In a mere five years, replacement income ratios fell by more than 30% and have remained there. (Eckler 2013)

What are the consequences of these limitations of DC funds? The consulting firm Towers Watson recently created a "DC Retirement Age Index." It used a "benchmark" DC plan member to gauge the effects of investment returns and interest rates (which affect the price of annuities) to determine when a plan member could retire.<sup>3</sup> The member who started contributions in 1988 and retired before the financial crisis in 2007 (at age 60, after 20 years service) set the benchmark annuity income (as a percentage of salary). Those retiring in 2009, after the financial markets debacle, could only afford to purchase that

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<sup>3</sup> This was an individual who made contributions from ages 40 to 60 and who purchased an annuity upon retirement.

benchmark annuity at age 62, hence needing to work an extra two years. By the end of 2010, this age had moved up to 64 years. By late 2011, it was almost 67 years. And by late 2012, it was 68½ years – hence, compared to 2007, 43% more work time was now required in order to purchase *the same annuity*.<sup>4</sup>

Responding to these data, John McIntosh, Towers Watson’s Canadian Plan Design Issue Leader, said: “DC plan members need to keep a long-term focus, and periodically review and adjust their levels of contribution and investment choices – or they may find themselves unpleasantly surprised” (Willis Towers Watson 2012). Then again, perhaps what DC plan members need is a DB pension.

## 4. Income at Retirement

In 2014, the maximum Old Age Security (OAS) payment for a 65 year-old was \$6,700 (or \$9,100 if they had postponed collecting it until age 70). The maximum Canada Pension Plan (CPP) was \$12,500 (or \$17,700 if they had postponed collecting it until age 70).<sup>5</sup> At age 65, if you earned the maximum CPP, you would have received \$19,200 from your government pensions. In 2014, the Statistics Canada poverty line for one person in a small city like

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<sup>4</sup> For some reason, Towers Watson appears to have stopped monitoring the index after December 2012. Note also that in order to compare “apples to apples,” the increasing ages in the index assume the worker makes no further pension contributions at their place of employment after age 60. In practice, of course, the worker would make contributions, hence lowering the age of retirement somewhat.

<sup>5</sup> In order to receive the maximum CPP, you must have contributed into the plan for 39 years, while every year earning above the Year’s Maximum Pensionable Earnings (YMPE), which are \$54,900 in 2016. Years not working or years where you earned below the YMPE will reduce your pension below the maximum. For example, if you earned half the YMPE for 39 years you would receive half the maximum CPP (so in 2014, you would have received \$6,250 at age 65).

North Bay was \$20,800; it was \$24,300 for a city the size of Toronto.

It may come as a surprise that, for a single person, an OAS pension and a *maximum* CPP would have you living slightly *below* the poverty line in northern Ontario and far below the poverty line in one of Canada's larger urban centres. As a result, we need to think of government pensions as the foundation of our retirement incomes, something that can cover little more than the basic essentials of life. If we are to enjoy our retirement, then, it is imperative that we also have additional revenues which are generated from investing our savings. The best way to generate those revenues, without any doubt, is through membership in a defined benefit pension at work.

What kind of pension would you receive in a DB plan? Let's use the Colleges of Applied Arts and Technology (CAAT) plan as an example. A CAAT pension is a combination of (i) the number of years you have worked and (ii) your average salary (which is calculated based on the five years of your career when your salary was highest). Let's assume you spent the last five years of your career at the top of the Associate Professor rank, retiring at the end of 2015. A *rough* estimate of an annual CAAT pension would be \$43,000 for someone with 20 years of work; \$53,000 for 25 years; and \$64,000 for 30 years. If you spent the last five years of your career at the top of the Professor rank, the pension would be \$54,000 for someone with 20 years of work; \$67,000 for 25 years; and \$81,000 for 30 years.

Meanwhile, the "pensions" we receive from a DC plan are inadequate and unpredictable. When we are working, when we are in the "accumulation" phase of our retirement planning, the vast majority of us will suffer as a result of the lower investment returns generated from DC plans. Moreover, after we leave work, we begin the "decumulation" phase, which refers to "the ways in which a lump sum account balance at the point of retirement

can be converted into an income stream” (Vettese 2015, 6). We will be making these “conversion” decisions on our own and will likely have to continue taking a financial hit in the market as well.

How much of a DC “pension” you receive also depends on a simple twist of fate: the timing of your retirement. Anyone who retired following the 2008 global meltdown was met with a much more hostile financial environment compared to someone retiring in 2007, in terms of interest rates, the cost of annuities, and the total assets saved in their CAPs. Two people, each with the same salary and years of service, can end up with vastly different pensions, simply as a consequence of pure luck. In a DC plan, “your retirement is at the mercy of the market” (Milevsky 2010). And when you enter that market, you have just two options: annuities or Life Income Funds.

### ***Annuities***

For DC plan members, one retirement option is to purchase an annuity (a form of “retirement longevity insurance”). In doing so, you hand over all the money in your CAP account to a financial institution and, in return, they would provide you with an income that is guaranteed for life. The downside of an annuity is that, should you die the day after you retire, the financial institution would keep all your money. That’s the gamble you take should you play this game. If you don’t like that idea, you can purchase some guaranteed years of payment, including payments that would be made after your death (so the money would go to your estate), but that will cost you, hence reducing your annual payout. In short, with an annuity, the “amount of retirement income you receive will depend on several factors, including age, gender, number of lives involved, and whether or not there is a guarantee period” (Woodger and Tooley 2016). You also have to shop for this annuity on your own. The

onus is on you, with limited knowledge, to make critical decisions that will dramatically affect your standard of living for the rest of your life.

How much income would you receive with an annuity? The adjacent table provides a comparison.<sup>6</sup> The table is based on an individual with 18 years of work at Nipissing who used the \$420,000 in their CAP to purchase an annuity. I have also determined a rough estimate for a CAAT pension for the same employee, assuming final average earnings of \$115,000. Notice that the annuity payout depends on your gender (it's about 10% less for women) and whether or not a spouse is attached (a joint-annuity), which produces a further reduction in the annual revenue stream. Even more damaging is the absence of inflation protection in a standard annuity. After 20 years, a (mostly) inflation-protected CAAT pension would end up being significantly higher – *almost twice as high* for an individual with a spouse.<sup>7</sup>

	<b>Single male (\$)</b>	<b>Single female (\$)</b>	<b>Male with female spouse (\$)</b>	<b>Female with female spouse (\$)</b>
Annuity	28,000	25,300	22,700	22,200
Annuity after 20 years (0% for inflation)	28,000	25,300	22,700	22,200
CAAT pension	35,000	35,000	35,000	35,000
CAAT pension after 20 years (1% for inflation)	42,700	42,700	42,700	42,700

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<sup>6</sup> I used the RBC annuity insurance payout calculator, available online.

<sup>7</sup> Note that regular employer and employee contributions are higher in the CAAT plan compared to Nipissing's DC plan, but the difference is not enormous. Discovering the exact difference is part of the research NUFA needs to undertake on the contrasts between our DC plan and a DB plan like CAAT.

The upside of an annuity is that you have no worries. It is a plan for life. You can't outlive your money. In other words, it's like a DB pension, but one where the retiree is colossally ripped off because of low interest rates and the need to contribute to the financial coffers of a for-profit insurance company. Another factor contributing to their expense is that, in "order to provide a reliable stream of income to you, insurance companies generally rely on lower-risk and lower-yielding investments and that is reflected in what you will receive in annuity payments" (Woodger and Tooley 2016). Furthermore, insurance companies

assume that if a worker voluntarily applies to purchase an annuity then that worker must be in five-star health and expecting a long life, and the annuity is priced accordingly. Few workers have five-star life expectancy, but they get painted with the one-size-fits-all brush so they in effect overpay for their annuity. (Brown and McInnes 2014, 16)

This is an inefficient way to approach retirement. With an annuity, you are in effect attempting "to self-insure against longevity" (Brown and McInnes 2014, 25). This is why less than 5% of those who convert their CAPs choose to purchase an annuity. Vettese (2015, 6) notes that "annuities are not popular, and in a world of low interest rates, they will not become more so any time soon." So what other options exist for retiring NUFA members?

There is only one, as it turns out.

### ***Life Income Funds***

A Life Income Fund (LIF) is identical to a Registered Retirement Income Fund (RRIF), except that a LIF uses money that was previously held in a locked-in Registered Pension Plan (an RPP you have at your workplace, like Nipissing's Standard Life/Manulife plan). You continue to invest and "manage" the tax-sheltered funds in your LIF until you die.<sup>8</sup> You

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<sup>8</sup> Vettese (2015, 6) notes one of the key drawback of this arrangement, namely that LIF owners, who are retirees, "are now on their own without the plan sponsor to watch their backs."

must withdraw a certain percentage of the money every year and pay taxes on it, as you would on any salary or pension.<sup>9</sup> With a LIF, “any benefit payments cease when the account balance is depleted, regardless of the retiree’s age or circumstances. As with any savings account, once the money is gone, it’s gone” (Brown and McInnes 2014, 3). A “life income fund,” as it turns out, does not grant you an income for life.

The adjacent table is a comparison of what could be received in a LIF compared to a CAAT pension.<sup>10</sup> The LIF is designed to last 20 years; given government regulations on required withdrawals, it won’t last much longer than that. So how do things stack up? Over the course of 20 years, the CAAT member would draw 20% more income than the LIF owner who managed a 5% investment return and 45% more than the LIF owner with a 3% return. Moreover, the difference becomes enormous for those who live beyond the 20-year point, as a majority of post-secondary retirees will.<sup>11</sup> Living just five more years would produce a total income over retirement for the CAAT member that’s almost twice as high as that for the LIF account-holder with a 3% return. Vis-à-vis this careful, somewhat conservative DC investor, the CAAT member’s extra lifetime income after a 26th year would be an *astounding half-million dollars*.

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<sup>9</sup> For a chart that summarizes minimum and maximum withdrawals from a LIF, for individuals aged 50 to 95, see: <http://klsfinancial.ca/resources/lif-payments/>

<sup>10</sup> The CAAT pension is based on the same scenario that was used in the example for annuities. The LIF calculation is based on depositing \$420,000, requesting the maximum payment for each year, with no taxes withheld. It was calculated at: <http://investmenttools.scotiabank.com/scotiarif/en/index.jsp>

<sup>11</sup> For CAAT members who retire at age 65, the average retiree will live to be 89.

Source of retirement pension (or "pension")	Pension (\$) Year 1	Pension (\$) Year 20	Total income (\$) over 20 years	Additional income (\$), Years 21 to 25	Total income (\$) over 25 years
LIF at average 3% rate of return (after investment fees)	35,200	20,600	544,000	0	544,000
LIF at average 5% rate of return (after investment fees)	35,600	30,200	655,000	0	655,000
CAAT pension (1% added for inflation each year)	35,000	42,700	789,000	214,000	1,003,000

A further problem with a LIF is knowing how much money you would need to "draw down" on an annual basis and, given that amount, how long your LIF would last. Could you endure a sharp decline in stock markets of the kind that occurred in 2008? Or even a much smaller drop (say 10%)? If you experienced one of those declines, how would it affect the number of years you could live on your savings? Would you have to scale back the annual payments you make to yourself? Who would make those decisions for you, if you were no longer of sound mind? If you somehow became incapacitated 15 or 20 years after retirement, could you afford long-term care? What would you do if your savings ran out? Would you be amenable to selling your home in order to generate some cash? Would you sleep well over your retirement years with these kinds of questions rattling round your head?

With a LIF, you need to plan, not for the easily-determined average of a large pool, but rather for your personal, *maximum* life expectancy. In short, you have to *guess* at how long you will live. This utterly ridiculous task, assigned to retirees, is one of the most idiotic characteristics of DC plans. What kinds of questions would you need to ask yourself in or-



der to determine your potential lifespan? Perhaps questions such as: At what age do I think I will get cancer? What are the odds I will be hit by early-stage Alzheimer's? Am I expecting to be run over by a city bus? In a DB plan, one does not have to bother participating in such inane exercises. Your lifespan simply becomes the average lifespan of the great, unwashed masses who are part of the plan. If you happen to live longer than that average, you have nothing to worry about, because your pension is guaranteed. You do not have to dread living to a great age.<sup>12</sup>

By the way, if you *had* to guess, how long do you think you would live? To help you out, let me offer you one comparator group. If you are an American, female, school teacher, just about to retire at age 62, you can expect to live to age 90. The typical woman in this group will need to fund 28 years of retirement, something that would be difficult to do with a LIF. Amazingly, one out of every five of these women will make it to age 97, having spent 35 years of their lives as retirees (Fornia and Rhee 2014, 9).

Given the funds in your CAP, how long will you be able to enjoy retirement? Based on an individual lifespan, if you retire at 65 and want to have a \$50,000 pension (in real income, to cover 2% inflation), you would need to have \$400,000 in your CAP – but only if you are planning to be dead by age 75. If you think you might to live to 95, however, you would need to have a cool \$1 million in your account.

That's bad news for men, but the situation is even worse for women. In a DB plan, every member receives a pension for life. In a DC plan, each individual must create their own "pension." This poses an additional challenge for Canadian women, who from age 65 on-

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<sup>12</sup> One option proposed by Vettese (2015) and other actuaries to fix the "decumulation problem" is to have DC retirees pool their resources together in a common fund. It is telling that the solution to the inadequacies of DC plans is to mirror the best practices of DB plans.

ward can expect to live, on average, three years longer than men. As a result, women face a greater risk that they will outlive their savings. For instance, if an average pension were \$33,000 a year, women would have to be able to produce an additional \$100,000 in income via their retirement vehicles, compared to men, in order to equalize the odds that they will not run out of money. Given this, the aforementioned Janice Holman observed that it is “important for plan sponsors and the financial planning community at large to acknowledge the gender gap and actively address it within their education and communication initiatives” (Eckler 2016). Still, an even better initiative would be to “acknowledge” that no amount of education and communications can mitigate the fundamental flaws of DC plans.

With a LIF, the only way not to outlive your money is to spend it rather conservatively; in other words, to “over save” your funds. At first glance, this doesn’t seem like much of a problem, akin perhaps to being “overly good looking.” It is a problem, however, because over saving means that you will not enjoy your retirement income as you ought to, because you are afraid to run out of money. Your heirs (children, grandchildren, and charities) will benefit enormously from your reticence to empty your piggy bank, but you will not so benefit.<sup>13</sup> You may not do many of the things you had planned to do, such as taking that coming-of-retirement trip to Europe, making large gifts to family members, or purchasing that approaching-end-of-life sports car, because you fear the potential consequences of poverty. Meanwhile, “DB pensioners feel confident about having a steady income in retirement, so they spend their pension benefits at local businesses like stores and restaurants” (HOOPP 2016b, 9).

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<sup>13</sup> According to an American study, 24% of DC plan members’ retirement assets end up in their estates (Almeida and Forna 2008, 9).

In sum, with a LIF, the “worker in the DC plan is still responsible for the draw-down phase with all the risk and difficulties that implies” (Brown and McInnes 2014, 18). Given this, Fred Vettese (2015, 6), a defender of these plans, sheepishly notes that the “current decumulation options under DC plans are admittedly sub-optimal.” So what’s the solution to this problem? According to one consulting firm, “especially in uncertain economic times, employers may be well advised to carefully consider how to provide better education and tools to help DC plan members manage their retirement savings and expectations” (Willis Towers Watson 2011). Better still, employers might be advised to shop around to see which DB options are available for their workers.

## **5. Survivor Benefits and Inflation Protection**

In any pension, two of the most common – and most important – “ancillary” features are benefits for survivors and protection against inflation.

In the CAAT Plan, calculating survivor benefits is easy. They are 60% of the deceased member’s pension. If the pension is, let’s say, \$50,000, then the surviving spouse would receive a pension of \$30,000 for the rest of his/her life. This benefit also comes with a “life guarantee” of five years (“LG5”), which means that pension payments are guaranteed for at least that long. For example, if a member without a spouse died one year after retirement, four years’ worth of benefits (or \$200,000 in this example) would go to their estate.<sup>14</sup> For DC members who purchase an annuity, they can add in a joint life (typically a spouse), but

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<sup>14</sup> A similar benefit is in place for members with spouses (though the calculation is not so easy to explain!).

this is expensive to do. For example, a man who adds a female spouse to his annuity can expect a reduction in his annual income in the range of 15% to 25%.

In a LIF, after you die, your spouse will get whatever is left in your account, which they will have to manage and draw income from until their death. The only “advantage” a LIF has over a DB pension is for people without a spouse who die, say, shortly after the fifth year in which they begin their pension. In that case, there would certainly be some funds left in the LIF account, while nothing would go to the estate of the DB pensioner. However, I would suggest that the role of a pension is to provide you with an income while you are *alive* (and provide an income to your spouse after your death), so you can enjoy retirement. It is not the role of a pension to serve as a windfall inheritance for children and grandchildren. That role can be served by your principal residence (which can be sold after your death), furniture and other possessions, private savings (from your salary as a worker and your pension as a retiree), and so forth.

What about inflation protection? The CAAT plan covers three-quarters of the increase in the cost-of-living over time, to help maintain most of the purchasing power of your original pension.<sup>15</sup> Let’s assume that inflation averages 2% a year, and your starting pension is \$50,000. The CAAT plan would cover three-quarters of this amount, or 1.5% per year. If the plan had 100% coverage, after 30 years your pension would be \$91,000. Because it’s 75% covered, your pension would be “only” \$78,000. Still, that’s much better than the \$50,000 it would be without any inflation protection. This is what would happen to your income if you bought a basic annuity. In this instance, after 30 years of 2% inflation, you would be able to purchase only 60% of what you were purchasing at the beginning of your retirement.

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<sup>15</sup> Note that funding this cost-of-living benefit is conditional each year on the overall financial health of the CAAT plan.

Inflation protection per year	Initial Pension (\$)	Pension after ...		
		20 years (\$)	25 years (\$)	30 years (\$)
0.0%	50,000	50,000	50,000	50,000
1.5%	50,000	67,000	73,000	78,000
2.0%	50,000	74,000	82,000	91,000

You can add inflation protection into an annuity. However, covering yourself for 2% inflation will reduce your annuity payments from somewhere between 17% and 28%, depending on which financial institution you deal with.<sup>16</sup> If you were to add a spouse into the mix, you can see why annuities are not used by 19 of every 20 DC retirees.

You can also obtain some inflation protection in a LIF: “A well-diversified portfolio will give you the opportunity to keep pace with or beat inflation but it will depend on your investments and their performance” (Woodger and Tooley 2016). A LIF gives you the *opportunity* to keep pace with inflation, whereas a DB pension is a virtual *guarantee* that you will suffer little as a consequence of increases in the cost-of-living.

In a DB plan, no extra charges are required to obtain these ancillary benefits. Plan members have already purchased them from the contributions they made over their careers. As we have noted, it’s quite a different story for DC members, who must dig deeper into their pockets at every turn to fund what many see as essential benefits for retirees, the kind of benefits that DB members take for granted.

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<sup>16</sup> See <http://retirehappy.ca/indexed-life-annuity/>

## 6. Where Do We Go From Here?

Nipissing University's "pension" has been a DC plan since its inception decades ago. And there has been virtually nothing that NUFA could have done to change this, short of using collective bargaining to try to convert our DC plan to a DB. That would have been an incredibly complex process. It would have required Nipissing to create a stand-alone DB pension, a risky proposition for our administration. It would be easy to sympathize with an employer who did not want to travel down that road (which undoubtedly explains how we ended up with a DC plan in the first place). At the same time, the current and future economic reality means that ever-fewer DC plan members will find success in the marketplace as independent pension entrepreneurs.

NUFA members should be aware by now of the creation of an alternative, the Universities' Pension Plan (UPP). The objective of this proposal, being developed with the support of organizations like OCUFA and the Council of Ontario Universities, is to create a multi-employer, jointly-sponsored pension plan for the university sector. Many faculty, staff, and administrative groups are involved in this proposal, and they have been working for over two years to complete the Research and Design stages. Unfortunately, the design has not yet been finalized and likely won't be before this September at the earliest. When this work is done, there will still be a Build stage and a Transition stage, which will involve (and I am guessing here somewhat) about two more years of jumping over legal and administrative hurdles. This process has moved much slower than I had hoped. As it stands, the UPP is like a twinkling mirage. Just when we feel we are getting close, it moves further off in the distance.

There is now, however, another option available, and this option is already “up and running.” On 1 November 2015, the government of Ontario issued regulations making it much easier for a single-employer pension plan to transfer its assets into a multi-employer pension plan. The aforementioned CAAT plan is now available for us to join – and they would love to have us. The one barrier, though, is CAAT’s high contribution rates, relative to the rates Nipissing’s DC members are currently making. Still, there may be creative ways we can deal with this issue. Over the summer, NUFA is going to continue monitoring the development of the UPP while conducting further research on the CAAT plan. We will begin a dialogue with Nipissing’s administration to see if there is any possibility of our non-TPP Members being able to transition into either of these defined benefit pensions. We will hold a special pension information meeting in the Fall (**Friday, September 16, 1:00 p.m. Location TBA**) to give you a full update on this very important issue.

So, stay tuned ....

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## **Upcoming Pension Discussion Paper #2**

In the next Pension Discussion Paper, due out in July, we examine the surprisingly high costs of DC pensions to *employers* and explain why it is extremely risky for employees in a DC plan to retire before age 71.

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