BEST PRACTICES IN THE DESIGN AND UTILIZATION OF PUBLIC SECTOR DEFINED CONTRIBUTION PLANS

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The Gold Standard in Public Retirement System Design series—a product of the Pension Integrity Project at Reason Foundation—reviews the best practices of state-level public pensions and provides a design framework for states that are struggling under a burden of post-employment benefit debt, with tips for how to move into an overall more sustainable model for employees and taxpayers.
EXECUTIVE SUMMARY

The primary objectives of any employer sponsored retirement plan should be to enable employees to maintain their standard of living in retirement after a career in the workforce, to meet employer needs for recruiting and retaining a talented workforce, and to do both in a financially prudent and sustainable manner. Several types of retirement plan designs have proven successful over long periods of time in achieving these objectives. In the public sector, traditional defined benefit pensions have become increasingly strained financially, leading to more difficulty meeting the needs of a modern workforce that increasingly sees public service as a temporary stop along a varied career path blended with other private sector work, as opposed to a destination for full-career employment.

This has prompted policymakers at all levels of government in the U.S. to consider introducing alternative types of pensions and other portable retirement plan designs—including defined contribution (DC) retirement plans—as a viable alternative to better serve the needs of shorter-tenured workers and reduce financial risks for employers.

A retirement plan that effectively meets both employer and employee needs can encompass any number of plan types, as well as combinations. When structured properly, DC retirement plans—plans with individually controlled investment accounts with contributions made by both employers and employees—can offer governments an approach to retirement plan design that garners retirement security for employees while actively working. DC plans accomplish this by modernizing the retirement option set and managing employers’ financial risks that are inherent in traditional pension plans that have
accumulated to over $1.28 trillion in unfunded public pension liabilities nationwide in 2019.

However, like any tool, a retirement plan can be designed well or poorly, and the design will ultimately determine any retirement plan’s ability to achieve its objectives. The best practice design elements discussed in this paper are critical to building well-structured defined contribution retirement plans and should be considered in any plan design effort.

DC plans have certain key advantages over other retirement plan designs. Among these, especially for public sector employers, is that no unfunded liabilities can be created with a DC design. Employer obligations are fully met when contributions are made. This stands in stark contrast to the traditional defined benefit (DB) pension systems that have created unsustainable unfunded liabilities borne by governments, and ultimately taxpayers, in a number of jurisdictions. DC plans are also well suited to meeting the career mobility needs of public employees in the modern workforce. In today’s norm of working for several employers during a career, a retirement plan that recognizes this mobility addresses a key societal need for retirement savings adequacy.

In DC plans, the contribution itself does not guarantee any fixed level of future benefit, which can be seen, understandably, as a shortcoming of DC. However, this paper discusses how policymakers can effectively mitigate this risk by incorporating products like annuities and even using emerging DC design innovations that focus on “lifetime income” via new investment strategies and technologies that ensure annuity-like income throughout retirement.

Critical steps toward creating an effective retirement plan design include:

- Clearly articulating plan objectives for lifetime income and other key considerations,
- Clearly stating and explaining the plan’s purpose to all interested parties,
- Communicating important features and educating participants,
- Using auto-enrollment,
- Providing adequate contributions,
- Choosing appropriate portfolio design, and
- Providing benefit portability and flexibility of benefits distribution.
Designing and administering a core DC retirement plan that meets these best practices will result in a plan that meets the employee retirement needs of today’s evolving and dynamic public sector workforce. A well-designed DC plan will also enable crucial recruiting and employee retention needs of the public sector. Utilizing DC plan best practices can ensure retirement security for public employees without the risk of accumulating the types of unfunded liabilities associated with many public sector DB plans nationwide.
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INTRODUCTION

Any employer sponsored retirement plan should aim to enable employees to maintain their standard of living in retirement after a career in the workforce, to meet employer needs for recruiting and retaining a talented workforce, and to do both in a financially prudent and sustainable manner. Several types of retirement plan designs have successfully achieved these objectives over long periods of time. But in the public sector, traditional defined benefit pensions have become increasingly strained financially, leading to more difficulty meeting the needs of a modern workforce that increasingly sees public service as a temporary stop along a varied career path blended with other private sector work, as opposed to a destination for full-career employment.

As a result, U.S. policymakers at all levels of government are considering introducing alternative types of pensions and other portable retirement plan designs—including defined contribution (DC) retirement plans—as a viable alternative to better serve the needs of shorter-tenured workers and reduce financial risks for employers. Although DB pension plans have been predominantly used in the public sector for many years, DC plans have proven their worth as core retirement plans. By including new and emerging financial services technologies available today, plan sponsors can design and implement DC plans that are more effective and efficient than ever in meeting plan objectives. To understand the role both DB and DC plans play within public sector retirement systems, we need to identify key features of both.
Distinguishing Between Defined Benefit Pensions and Defined Contribution Retirement Plans

What Is a Defined Benefit (DB) Pension?
- A defined benefit (DB) retirement plan is an employer-sponsored core or supplemental retirement savings plan that specifies the monthly retirement money retirees will receive, which is typically based on the employee’s salary, years of work, and age.
- Employers typically control the investment strategy in the account.
- If sufficient assets are not available in the pension trust to pay out all promised benefits over time, the DB pension system will accrue unfunded liabilities that in most cases are borne entirely by employers, thus exposing taxpayers to significant financial risk.
- DB pensions are designed to be pre-funded such that when an employee retires, the employer has reserved enough money to pay for all promised retirement benefits. Thus, there is no need to have new entrants into a DB pension plan to keep it working properly. DB pensions are very different from Social Security, which relies on contributions from active employees to finance current retiree benefits.

What Is a Defined Contribution (DC) Retirement Plan?
- A defined contribution (DC) retirement plan is an employer-sponsored core or supplemental retirement savings plan that specifies the amount of money designated by the employee, the employer, or both to be contributed.
- Employers direct these contributions into an investment account to accumulate a return in capital market investments commensurate with the funds needed for retirement. Employees typically control the investment strategy (e.g. risk tolerances, portfolio composition, etc.) in the account within the provisions allowed in the plan document.
- Once the employer’s contribution is made, their obligation is fulfilled; thus there is no possibility of unfunded liabilities within a DC retirement plan.
- Some DC plans provide a minimum contribution rate that could increase up to a maximum rate depending on matching contributions from employees.
- Retirement planners typically recommend targeting enough retirement assets between an employer-sponsored DC retirement plan and Social Security to replace between 70% and 90% of pre-retirement income, depending on the employee’s lifestyle preferences.
Defined contribution (DC) retirement plans have successfully served as the core retirement vehicle for certain public employees, including most academics in public higher education, for many decades. The availability of various DC plan features has evolved over time with the changing needs of the workforce and workplace needs of employers. Advances in financial technology have made innovative plan features available today that simply didn’t exist a generation ago. Utilizing the best practices outlined in this brief, a plan sponsor can create a plan that meets employee and employer needs without creating additional unfunded liabilities for state and local governments.

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For traditional public DB pension programs, states like Wisconsin, South Dakota, and North Carolina have exceptionally well-funded plans, which demonstrates that a plan can work quite well if properly designed and managed, despite detractors’ claims that pensions are inherently unsustainable. By contrast, states like Kentucky, Illinois, and Connecticut need to see substantial and immediate improvements to keep their state-run public employee DB plans solvent. Nationwide, most public pension plans can be categorized as underfunded, meaning they don’t have sufficient funds invested today to cover all the long-term retirement promises made to their employees. A 2019 study by Milliman found the nation’s top 100 largest public pensions systems have on average only 73.4% of the assets needed to pay out future benefits. This suggests a strong need for states and local governments to adopt widespread reforms in order to improve the long-term financial sustainability of their pension systems.

Public sector defined contribution (DC) retirement plans differ in quality of plan design, but all provide retirement benefits for employees by making regular contributions into a retirement account invested in a defined portfolio. At the end of employment, the accumulated savings and investment returns fund the employee's retirement. This eliminates the public investment underperformance exposure risk that DB pensions have, because under DC plans employer contributions into the plan remain constant despite good or bad returns on investments. Put differently, a DC plan cannot contribute to or create a debt liability, making it an attractive retirement option for public employers.

“Nationwide, most public pension plans can be categorized as underfunded, meaning they don’t have sufficient funds invested today to cover all the long-term retirement promises made to their employees.”

In this paper we lay out best practices, beginning with plan objectives that, when adhered to, will create a DC retirement plan that meets key stakeholder needs. We specifically address core plan design elements such as contribution rates, auto-escalation, transition cost, risk, and retirement security. We provide comparisons in functionality of both DC and DB plans to illuminate the pros and cons of reform elements. Finally, our analysis concludes with real-world examples of successful reforms.

Although each public retirement system is different, with varying levels of solvency, all plan managers should consider the reforms discussed in this brief to bolster future pension solvency.
UNDERSTANDING DEFINED CONTRIBUTION RETIREMENT PLANS

DC plans can offer many distribution options for assets ranging from cash withdrawals to guaranteed lifetime annuity payments, similar to a pension. This means that the plan can be tailored to different types of retirement income consumption patterns.

Tax-favored savings in DC plans are covered under Internal Revenue Code (IRC) sections 401(k), 403(b), 457(b) and 401(a) (among other IRC sections) depending on the particular employment sector. The IRS restricts maximum pre-tax contributions and distributions from the plan assets. Failure to comply with the restrictions results in significant financial penalties.

One important factor from the standpoint of plan managers is that DC plans cannot create unfunded liabilities like DB plans can. An employer’s obligation is fully satisfied when a contribution to the plan is made.
Core DC and supplemental DC plans, which are discussed in the following sections, together with Social Security form a composite benefit that, when structured properly, supports lifetime financial security for the employee upon retirement.

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CORE DC RETIREMENT PLANS

The most widely known DC plan, defined under IRC Section 401(k), originally developed as a supplemental retirement savings plan. These 401(k) plans have come to define the corporate world’s primary or core retirement plans since the widespread demise of DB pensions in this market.

Like other IRC sections, 401(k) allows employees to defer a portion of their wages to an individually controlled account under the plan. Also, a 401(k) plan can utilize non-wage compensation such as profit-sharing and stock bonus. In a core DC retirement plan the employer makes a contribution, defined as a percentage of employee salary, into the individually controlled account. Often the employer mandates an employee contribution to receive the employer “match.”

For the purpose of this report, we focus on the public sector equivalents of corporate 401(k) plans. Sections 401(a), 403(b) and 457(b), in combination with several other IRC sections, define the public sector DC plans much like 401(k) does for the corporate sector.

SUPPLEMENTAL DC PLANS

With the exception of public and private higher education, where DC plans have been the primary retirement plans for over a century, DC plans originally were designed to supplement an employee's DB pension. For the public sector, the IRS uses code 457(b) to define supplemental DC plans. Depending on employment sector, 457(b) allows an employee to tax-defer income up to an amount defined formulaically under the Code into an individually controlled account. Distributions are limited and defined in order to maintain the tax-preferred status.

Today, many supplemental DC plans are used in conjunction with core DC plans to help meet the employee's financial objectives in retirement. In the public sector, employers commonly offer traditional DB pension plans combined with supplemental DC plan benefits as a way of providing enhanced retirement security options without adding to the financial risks that often accompany public pension benefits in the United States.4

While DC plan retirement benefits are not defined, much of the longevity risk and other risks inherent in traditional DC plans can be mitigated through proper plan design, which the next section discusses.

THE GOLD STANDARD FOR PUBLIC SECTOR DC CORE RETIREMENT PLAN DESIGN

Designing a DC plan requires an understanding of human behavior. Studies show that employees are more likely to engage in passive decision-making with respect to retirement. This means that most employees depend on the default settings built within the plan to guide them to their retirement objectives. Plan design should account for this by mandating industry best practices and defining them within the plan document.

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DEFINE PLAN OBJECTIVES

If any retirement plan is to be effective in meeting plan objectives, those objectives must first be defined. It is a best practice for a plan sponsor to define those objectives in writing as part of a comprehensive “benefits policy statement” or at least within a “retirement plan policy statement.” For a core DC retirement plan, this statement should discuss the plan’s objective to provide lifetime retirement income security in combination with other plans (personal savings and Social Security) following a career of employment.

The statement should clearly describe that a “career of employment” does not necessarily carry the expectation that the entire career would be with the current employer.

The statement should clearly describe that a “career of employment” does not necessarily carry the expectation that the entire career would be with the current employer. In January of 2020, according to the U.S. Bureau of Labor Statistics, median tenure for state government workers was just 5.6 years. While somewhat longer than private sector workers, this clearly shows that the vast majority of state government employees do not spend a career with one employer. Recognition of the reality of the modern workforce is essential to the success of a plan. Income security in retirement can be defined as a range, for example, 70% to 90% income replacement in retirement from all sources.

COMMUNICATE AND EDUCATE

Plan sponsors need to ensure plan members are educated on the available choices and have all the relevant information to make competent retirement choices. Not doing so could lead to the plan’s objectives not being met for a broad cross-section of participants. Education on plan objectives, investment options, and all plan features can be provided by the employer, the financial services provider hired by the plan sponsor, or by third-party

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financial education providers. The important factor is that the education must be unbiased and directly tied to plan objectives.

Additionally, best practice makes specific investment guidance and advice available to individual plan participants. To prevent a potential conflict of interest and ensure that the employee's best interest takes precedence over firms seeking to sell financial instruments, an independent third party (not a party providing investments available in the plan) must formulate the advice for a plan participant. As compared to “guidance,” “advice” includes specific, fund-level investment recommendations. With advances in technology available in the financial services area, such advice can be provided for plan participants at very low cost. Plan sponsors can contract with independent advisors, making advice available to all plan participants without direct cost to them.

“The first step of any competent core DC plan design is to mandate participation.”

AUTO-ENROLL ALL PARTICIPANTS

In order for a core DC retirement plan to meet its defined objectives effectively, the employee must participate in it. This seemingly obvious observation is critical. The first step of any competent core DC plan design is to mandate participation. This can be accomplished through auto-enrollment features that enroll new employees immediately upon being hired. Research shows that the likelihood that an employee participates in a retirement plan and the timing of this decision are strongly correlated to auto-enrollment features. Absent auto-enrollment, employees may opt out of retirement planning altogether or wait too long to start saving, which lowers the probability of achieving satisfactory income replacement in retirement.²

MAKE ADEQUATE CONTRIBUTIONS

Any retirement plan’s most basic goal should provide enough income during retirement to maintain the retiree’s pre-retirement standard of living. As a rule of thumb, a well-designed retirement plan (or combination of employer-sponsored retirement plans, Social Security, and/or private savings) should replace approximately 80% of a worker’s final salary. This assumes retirees will have a lower cost of living with major financial commitments such as mortgages and childrearing complete. Public sector DC plans should be designed to meet this standard, with a more accurate replacement ratio ranging between 70% and 90% of average final income, with the actual percentage being inversely correlated to income. In other words, the higher the income, the lower the replacement ratio is necessary to maintain an employee’s standard of living.

Financial experts strongly recommend total contributions of 10% to 15% of pre-tax earnings into a retirement account throughout the employee’s career for those participating in Social Security; a higher 18%-25% is generally recommended for those with no other DB pension or Social Security to rely on.

An important component of plan design defines a contribution rate that, in combination with other plan features, will mitigate underfunding risk. Financial experts strongly recommend total contributions of 10% to 15% of pre-tax earnings into a retirement account throughout the employee’s career for those participating in Social Security; a higher 18%-25% is generally recommended for those with no other DB pension or Social Security to rely on. This is a combined employer/employee rate that could be divided any number of ways between the two parties.

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Often, the employer contribution will be “matched” or dependent on the employee contribution. Older workers with a closer retirement horizon and inadequate savings may need to contribute even more than otherwise to achieve income adequacy in retirement.

One technology-based feature that plan sponsors can use to ensure the recommended contribution rates are reached is auto-escalation within plan design. Auto-escalation slowly increases employee contributions into DC plans over a period of several years. Auto-escalation can be tied to rising wages of an employee, so that it increases proportionally to the wage increase.

USE RETIREMENT-SPECIFIC PORTFOLIO DESIGN

Achieving a plan’s ultimate objectives requires including investment options that directly target a long-term retirement time horizon. Among these, well-designed DC plans should offer “one-touch” investment options for employees who are not sophisticated investors and do not want to avail themselves of in-plan investment advice. Today’s plans often use target date funds that adjust asset allocation to the employee’s retirement horizon to mitigate investment loss risk as retirement approaches. Target date funds (TDFs) allow a worker to take on more risk while young for higher returns. The worker’s investment mix slowly shifts to a more conservative asset allocation as the worker nears retirement, locking in gains.\(^{10}\)

> *Today’s plans often use target date funds that adjust asset allocation to the employee’s retirement horizon to mitigate investment loss risk as retirement approaches.*

While a significant step forward, TDFs do have limitations. Basically, they treat everyone with the same birthdate as having the same asset allocation needs throughout their

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careers. While this is broadly accurate, individuals with common birthdates may realistically have vastly different investment and retirement planning needs.

With continuing technological advancements in the financial services industry, new methods of determining asset allocations on the individual level are becoming available. Whereas a generation ago these approaches were largely manual and thereby cost prohibitive, they are now based on highly sophisticated computer-based stochastic modeling that makes them cost effective for all employees and plan sponsors. This newly available approach to asset allocation is based on Liability Driven Investing (LDI) techniques. DB plans have long used LDI on the plan level, and now DC plans can use it on the individual participant level. In contrast to TDFs, which treat each individual of the same age the same, LDI looks at each participant’s specific financial picture and creates and manages the asset allocation for that individual over time. Furthermore, LDI modeling can heed the plan’s ultimate income replacement goal and manage assets over a career to best match that goal for each participant.

MAKE BENEFITS PORTABLE

DC plans are uniquely able to meet the career mobility realities of the modern workforce, where median job tenure for state government employees’ is 5.6 years according to Bureau of Labor Statistics. However, plans need to be properly designed to meet this critical objective.

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Plan sponsors should reduce or eliminate vesting periods (the time spent participating in the plan before the assets are fully "owned" by the participant). Since the amount of accumulated assets an individual owns determines the retirement income from a DC plan, short or immediate vesting is directly tied to retirement benefit adequacy and can help employees accumulate the assets necessary to meet plan income objectives.

Since plan participants will almost certainly work for several employers during a career, shorter vesting periods or immediate vesting at each career stop is critical to achieving adequate retirement income. Traditional defined benefit plans have long vesting periods that often take years. If an employee leaves before being fully vested, their benefits are either substantially reduced or eliminated. This punishes modern workers who change jobs often.

**OFFER DISTRIBUTION OPTIONS**

Many believe that DC retirement plans can only distribute plan assets to individuals as a lump sum, but this is inaccurate. A plan sponsor can very specifically define the asset distribution methods available in the plan document. Employers can distribute some or all of an individual's accumulated assets as lifetime income (or “annuitizing” assets) using fixed and/or variable annuities, guaranteed minimum withdrawal benefits, or any number of other available products.

Distribution options minimize retirement income inadequacy and should align with plan objectives. In other words, if the plan’s defined and articulated objectives seek to maintain a standard of living in retirement, the plan should make lifetime income options available to participants. Advanced TDF offerings and LDI designs can increasingly factor future income needs into their product designs.

DC plans can also offer lump-sum withdrawals and rollovers, which may be appropriate for some plan participants depending on their specific financial circumstances. Traditional DB plans typically do not offer this range of distribution options. A lifetime income is the only distribution available at retirement under most of these plans.

Another distribution-related DC plan best practice prohibits participants from borrowing against their account balances. The legal structure of DC plans may allow participant loans but a plan sponsor need not make them available. While loans may have a place in supplemental DC plans, they most certainly do not in core retirement DC plans. A best-
practice retirement plan focuses on providing lifetime income security in retirement as a primary objective. Borrowing from the assets in a core DC retirement plan is inconsistent with that objective.

A best-practice retirement plan focuses on providing lifetime income security in retirement as a primary objective. Borrowing from the assets in a core DC retirement plan is inconsistent with that objective.

ENSURE DISABILITY COVERAGE

Employees who suffer a long-term disability during their tenure need insurance coverage to replace the income suddenly lost as a result. Public DB pension plans normally provide a disability income benefit for employees, and DC plans should offer the same disability protection. Government employers can generally purchase a separate disability insurance benefit from a quality insurer—or even self-insure—for somewhere between 50 to 150 basis points (0.5% to 1.5% of salary).
ARE DEFINED CONTRIBUTION PLANS RIGHT FOR YOUR STATE EMPLOYEE BENEFIT SYSTEMS?

In the varied approaches to pension reform, debate often revolves around whether policymakers should improve an existing DB program or switch the program completely to a DC retirement plan. Reality isn’t so black and white: a much more robust set of policy options, choices, and hybrid concepts can be customized outside a simplistic “DB versus DC” framing. Optimal retirement plan designs vary with system objectives that may require different approaches, with pros and cons to every plan type. The overarching goal, however, is to design a sustainable plan that meets the needs of both public employers and employees.

Some perceive defined contribution (DC) retirement plans as less effective than defined benefit (DB) pension plans at providing retirement security in both the public and private sectors. When an unmanaged supplemental DC plan is employed as a core plan, this argument has merit. For example, West Virginia closed its traditional teachers’ pension
plan, the Teacher Retirement System, in 1991 and replaced it with a DC plan. Only a few years later, in 2005, the state reversed course, closing the DC plan and switching all members back to a DB plan. While this failure was blamed on an alleged inherent inadequacy of DC plans, in reality the culprit was poor plan design for that particular DC plan. If the DC design had followed the best practices described in this report, the plan would likely have met its objectives effectively.

In general, DC plans shift investment risk to employees, given that account values fluctuate with financial markets. Compared to DB plans, which require taxpayers to bear the financial risks of fluctuating markets by paying out a fixed, scheduled benefit, DC plans tend to be perceived as risky or inadequate by employees. Employees may wonder if DC plans can offer adequate retirement security in the face of uncertain market returns. One need look no further than public higher education, however, to realize just how effective DC plans have been in meeting employee retirement needs over a long period of time.

“When assessing adequacy and value to employees, DB to DC plan switch must account for the percentage of new hires who will leave public service before vesting in their DB pensions, thereby sacrificing the employer contributions made toward their benefit, and the likely detrimental impact this has on their retirement.”

When DC plans are judged “inadequate,” one has to assess the defined objectives and plan design to pinpoint what actually led to the DC plan’s inadequate performance. While DB plans may look stronger to career employees than DC plans, this discounts the needs of shorter term employees, which comprise a growing share of the modern public sector workforce. When assessing adequacy and value to employees, DB to DC plan switch must

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account for the percentage of new hires who will leave public service before vesting in their DB pensions, thereby sacrificing the employer contributions made toward their benefit, and the likely detrimental impact this has on their retirement.

**RECRUITMENT AND RETENTION**

Employee benefits are a key aspect of total compensation and a key role in recruiting prospective employees and retaining current employees. The 2016 Metlife U.S. Employee Benefit Trends Study found that 83% of employers believe that retaining employees is their top goal. Similarly, 51% said that using benefits to retain employees will become even more important in the next five years. Empirical literature that suggest that compensation and benefits play a major role in recruitment and retention of quality employees further supports this idea.14

The aforementioned narrative gives rise to the debate over which structure improves public sector employers’ ability to recruit and retain talent. Again here, many DB advocates view DC plans as an inferior product that may harm the recruitment and retention of talented workers.15 But does the evidence bear this out?

Although the research in this area has mixed findings, there is evidence that DC retirement plans could benefit employee retention. Broadbent et al. (2006) examined the transition from DB to DC plans, finding that the gradual shift away from DB toward DC favors labor market mobility, which alleviates the accrual risk associated with DB plans. The authors argue that DC plans can provide employees with more control and flexibility in managing their retirement savings and investments. Likewise, researchers Goad, Jones, and Manchester (2013) found evidence of positive selection into DC plans over DB plans for employees with higher mobility tendencies.

Furthermore, academics Goldhaber, Grout, and Holden (2016) studied pension structure and employee turnover in public pension systems, finding no association between shifts away from DB plans and higher turnover. DC retirement plans were introduced in higher education over a century ago specifically to address the recruitment and retention of


mobile faculty in a nationwide employment pool, and today almost all professions are mobile. State government employees’ (including public school teachers, public safety, and other state government workers) median employment tenure in 2020 was just 5.6 years, which belies the notion that people seek public sector work for permanent, lifetime employment anymore these days, as was assumed in the past.\textsuperscript{11}

State retirement system data support these numbers. For example, Colorado PERA School Division data show that only 37% of hires remain in the system after five years of service. Today’s typical public sector DB plans simply do not meet the portability needs of the modern mobile workforce.

\section*{TRANSITIONING FROM DB TO DC}

Properly designed public sector DC plans should not siphon off funds from the traditional DB plans when new employees choose between traditional DB and DC. As DB plans fund promised benefits, implementing a DC plan does not eliminate the need to continue full, actuarially determined contributions to any legacy DB plan still in operation. Continuing funding discipline for legacy DB pensions has been a challenging policy issue in states like West Virginia and Michigan over the years. This is important because it’s easy for policymakers and stakeholders to mistakenly believe that shifting workers toward DC plans either inherently poaches funding away from, or removes the need to continue to fully fund, legacy DB plans, which is not the case.

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Properly designed, prefunded, public DB pension plans do not and should not require future employee contributions to cover benefits promised to current employees.\ldots
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Properly designed, prefunded, public DB pension plans do not and should not require future employee contributions to cover benefits promised to current employees—this would be, by definition, a Ponzi scheme, not a prefunded, actuarially sound pension. At the same time, even if a traditional DB pension plan has no new future entrants joining the plan, governments are still fiduciarily obligated to continue making payments to amortize legacy unfunded liabilities. The best approach for employers—used in states like Arizona, Oklahoma, and Florida—is to, from an unfunded liability amortization policy perspective, act as if all new DC retirement plan entrants had instead entered the legacy DB plan, and thus continue making the usual percent-of-payroll-based pension contributions over a total payroll that includes the full employee headcount, no matter whether or not employees are in the DB or DC plans.

Furthermore, adding a DC option does not prevent the state legislature from making additional payments and changing current members’ contribution schedule to pay down any existing pension debt over time. Notably, the vast majority of public pension plans do not operate on a pay-as-you-go basis. This makes it possible to decouple employment growth (or the number of new workers paying into the system) from pension liabilities. Using level-dollar amortization can accomplish the task successfully, removing membership or payroll growth expectations from the pension contribution and debt calculations.

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Traditional DB pension plans took root and became the most common plan type in the public sector decades ago. Accordingly, with the notable exception of public higher education, the number of primary DC retirement plans used by U.S. state and local governments is relatively limited. However, policymakers can use some historical examples as a guide for good and bad practices when developing a DC plan design.
Some jurisdictions have successfully achieved this transition, with DC plans that have stood the test of time. In 1987, Washington D.C. closed its defined benefit plan to new employees and replaced it with a hybrid retirement plan—the Federal Employees Retirement System—that pairs a modest DB pension benefit (with a 1% or 1.1% annual accrual rate) with a world-class DC plan (the popular Thrift Savings Plan) and Social Security membership.

Michigan became the first state to close its state employee DB pension plan to new entrants and enroll all new hires in a DC plan back in 1996. Though this plan began with weak contribution rates and governance, it has improved remarkably over the last two decades—improving contribution rate adequacy, adding auto-default and auto-escalation policies, and offering annuities, for example—evolving over time into a high-quality DC plan. Likewise, Alaska closed its defined benefit plans in 2006 for new employees in favor of a DC plan with healthy contribution rates. And in public higher education, DC plans have predominantly provided successful retirement benefits in nearly every state, some for more than 100 years.

16 Snell, "State Defined Contribution and Hybrid Retirement Plans."
CASE STUDIES IN BEST PRACTICE PUBLIC SECTOR DC RETIREMENT PLAN DESIGN

ARIZONA PUBLIC SAFETY PERSONNEL DEFINED CONTRIBUTION RETIREMENT PLAN (TIER 3 DC OPTION)

Arizona significantly reformed its Public Safety Personnel Retirement System (PSPRS) in 2016, which created a new and more affordable tier of benefits for public safety personnel. Due to this reform, new public safety employees hired since July 1, 2017 (referred to as Tier 3 employees) are offered a choice between a risk-managed defined benefit pension plan (or a hybrid variant for those personnel under employers not participating in Social Security) and a pure DC plan—the Public Safety Personnel Defined Contribution Retirement Plan (PSPDCRP)—as their primary retirement benefit. Employees have 90 days to elect the PSPDCRP; otherwise they are defaulted into the risk-managed pension option. Personnel are also eligible to participate in a deferred compensation (e.g., supplemental) DC plan too, regardless of the primary plan chosen.
Those Tier 3 new hires choosing the PSPDCRP in an irrevocable election within the first 90 days of employment receive tax-deferred retirement savings in a professionally managed and self-directed 401(a) plan, including these features:

- Employees contribute a minimum of 9% of salary and can contribute up to limits established by the IRS, and vesting of employee contributions is immediate.
- Employers contribute 9% to employee DC accounts, and those contributions vest at a rate of 10% per year over 10 years.
- Participants are defaulted into an appropriate target date fund and can choose between five and 25 total investment fund options, including options that reflect different risk profiles and various automatically rebalancing target date funds. Participants can mix and match, splitting their DC investments across several of the predetermined investment portfolio options.
- PSPRS is required to hire a third party administrator, with periodic rebidding, to manage the PSPDCRP using evaluation criteria that cover the company’s financial stability, its ability to provide the participants’ benefits, fees and cost structures, experience in administering primary DC retirement plans in the public sector, and experience in providing member education.
- The third party administrator for PSPDCRP—currently Nationwide—is required by law to provide education, counseling, and objective participant-specific plan advice to participants through a federally registered investment advisor that acts as a fiduciary to participants and is thus required to act in the participant’s best interest.
- Upon retirement, participants can roll over their DC plans to an IRA plan or, alternatively, PSPRS is required to offer participants a menu of lifetime annuity options, either fixed or variable or a combination of both.
- Members and employers also make a relatively small contribution each pay period to the PSPRS DC disability program; those contributions are sent to PSPRS and are not included in their DC plan assets.

The 18% minimum annual contribution to the PSPDCRP exceeds the 10%-15% recommendation commonly made by financial advisors and retirement planners for those workers covered by Social Security. This means participants are substantially more likely to accomplish (maybe even exceed) the desired income replacement levels during retirement, making Arizona’s standalone DC retirement plan one of the nation’s best.
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That said, Arizona reform efforts faced a unique issue—a large portion of current public safety personnel work for employers that participate in Social Security while many others do not. This created a discrepancy in which some employees will both participate in Social Security and receive a PSPRS pension, while other employees receive only the PSPRS pension. To remedy this, the 2016 reforms introduced a PSPRS DB hybrid plan for employees not covered by Social Security. The hybrid plan offers those employees the risk-managed Tier 3 pension benefit along with a small 401(a) component of a 3% of pay employer contribution with an equal employee match for a total 6% supplemental DC contribution. This hybrid plan was also made retroactively available to all workers hired between 1/1/2012 and 6/30/2017 ("Tier 2" employees), and these workers received "catch-up" contributions as if they had been in the new PSPDCRP since the beginning of Tier 2.

A subsequent reform in 2017 opened up the PSPDCRP to state and local corrections officers, who are defaulted into a 7% employee contribution rate, but can drop that to no lower than 5% (or contribute more). However, the contribution rate they choose when they join the plan cannot be changed. These workers receive a far more generous vesting schedule. Members in this plan always own their contributions and investment earnings and will gain “vested” ownership of them at a rate of 25% after year one, 50% after year two, and 100% after three years.

Arizona’s PSPDCRP structure provides a road map for legislators and stakeholders seeking to reform their antiquated systems to reduce financial risk while ensuring multiple pathways to retirement security. Arizona created a credible DC retirement plan option to stand up next to a traditional pension and built out a generous contribution schedule that exceeds best practices. The system has adequate defaults that ensure workers are taken care of even if they do not take an active interest in their retirement planning. The system also offers varying investment options for workers seeking a more proactive role in their...
own retirement planning. Arizona PSPRS isn’t perfect; police and fire personnel members face a 10-year vesting period for the employer portion of the contributions, but the average job tenure in the U.S. is less than six years. Nevertheless, there is still a lot to learn from Arizona’s pension reform efforts.

**MICHIGAN’S EVOLVING DC REFORMS**

In 1996, former Michigan Governor John Engler and State Treasurer Douglas Roberts successfully pushed to create the nation’s first modern, large-scale, state-level DC plan for state employees covered by the Michigan State Employee Retirement System, under the notion that the traditional pension system was a poor fit for a changing workforce with shorter tenures. As Roberts told Reason Foundation in a 2014 interview:

*Even in the late 1990s, it was clear that society was changing. Our technology and our workforce were changing. People were no longer working for a single employer over their lifetime, but taking advantage of our strong sense of upward mobility. An individual might change jobs five, six, or seven times over a career. It’s very difficult to vest in a pension system when you’re changing jobs so frequently, assuming that your workplace requires 10 years of work to qualify for pension benefits.*

Under Michigan House Bill 6229—later to become Public Act 487 of 1996 after being signed into law in December 2016—all state employees hired on or after March 31, 1997 were automatically enrolled in a defined contribution retirement plan called “MSERS Tier 2.” The MSERS Tier 2 DC plan began as a fairly meager benefit; the only mandatory contribution was a 4% required employer contribution. If employees chose they could contribute an additional 3% of pay that would be matched by the employer, but many did not since this was not a default option.

Hence, this contribution policy led to fairly small DC account balances for the first waves of employees hired under the new plan. Over time the legislature and Office of Retirement Services, which administers the state’s largest pension plans, rectified the situation, steadily improving the contribution policy in both state law and administrative rules to

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focus on promoting retirement security. The plan has evolved to feature the following characteristics today:

- The state contributes 4% of each employee’s salary into their DC account, with immediate vesting of employee contributions. Employer contributions to the account vest over four years.
- Employees are now auto-enrolled at a 3% of salary contribution to their DC accounts, triggering an equal matching payment by the state of 3%, leading to a default 10% contribution rate for all new hires in Michigan state employment.
- Employees can contribute more beyond the required 3% without a match, and in fact the Office of Retirement Services maintains an auto-escalation policy that increases employee contributions by 1% per year as a means of “nudging” higher retirement savings.
- The current Tier 2 DC plan offers 11 target date fund options and another 18 asset class-based funds for individuals to choose from, depending on their investment appetite and retirement goals, including a totally self-managed plan.
- The current third-party administrator for the Tier 2 DC plan—Voya Financial—offers financial advisory services to plan participants, as well as fee-based professional financial portfolio management.

In 2010, the legislature extended DC retirement plans into public education, creating a hybrid DB/DC plan for new teachers and school personnel called the Pension Plus Plan to be administered by the Michigan Public Schools Employees’ Retirement System (MPSERS). Public Act 75 of 2010 enrolled new hires by MPSERS employers after July 1, 2010 into a new DB pension plan with the same benefit formula as before, but the benefit left out cost-of-living adjustment, extended some members’ final average salary numbers from three to five years, and capped the assumed rate of return on that DB tier at 7% (relative to the 8% in use at the time for the legacy DB tier). This pension was paired with a small DC element—a 2% of salary contribution to a DC fund with up to 1% of salary matched by the state—to create a fairly weak and unbalanced DB-heavy hybrid.

In 2012, Public Act 300 introduced the concept of DC choice to teachers and school district employees. MPSERS-participating employees could keep the same pension benefit but increase employee contributions, keep the same contribution rate but accrue prospective benefits using a lower benefit formula, or drop the pension portion of the hybrid to retain only the DC portion (with a low default contribution rate). New hires were defaulted into the new, reduced-benefit Pension Plus hybrid plan, but for the first time they were also
offered a full DC retirement plan option if chosen in the first 75 days of employment. Rather than mirror the DC offered to state employees, the optional MPSERS DC required a 6% employee contribution with a 50% match up to 3% of salary. Notably, at a 9% aggregate contribution rate, the full DC retirement plan offered to new hires came fairly close to the 10% rate offered in the MSERS Tier 2 DC plan for state employees, but both were far higher than the 3% default rate offered to existing teachers opting to switch plans under the 2012 law.

In 2017, the legislature continued its reform efforts. Public Act 92 of 2017 led to a different retirement option—either a revamped DC retirement plan or a redesigned "Pension Plus 2" hybrid plan—for all Michigan public school employees who began working on or after February 1, 2018. One important change in the 2017 reform package is that it changed the default plan to the DC retirement plan.

The upgrades to the core DC plan come from essentially replicating the MSERS DC plan design—with a 4% minimum employer contribution, triggering another 3% employer contribution and 3% employer match—extending the provisions backward in time to those hired since the first DC option launched in 2012. Another upgrade involved improving retirement security through auto-escalating contributions. Auto-escalation automatically increases employee contributions by 1% each year up to a maximum of four years. This feature can be disabled, and contributions can be voluntarily reduced by the employee. But if left to operate, in a short span of time—the same time required for employer contributions to fully vest in the DC plan—the aggregate DC default contribution rate rises from 10% to 14% of salary. This auto-escalation feature represents an upgrade from the 3% default some existing teachers selected in the wake of the 2012 legislation passage to strengthen retirement readiness.

Furthermore, Public Act 92 required the Michigan Treasury Department, which manages the DC Plan, to add at least one fixed rate annuity and at least one variable rate annuity to its investment option mix to provide more benefit withdrawal options at retirement and improve the system's ability to provide lifetime income.

On the hybrid side, the choice improved as well, particularly from concerning long-term financial resiliency. While the Pension Plus 2 Plan still combines the same post-2012 pension benefit with a small (3% aggregate contribution) DC plan in a weak hybrid structure, it nonetheless exemplifies a newer generation DB pension design built to be risk-managed, using 50/50 employer and employee cost-sharing and short amortization
schedules, minimizing the potential for contribution rate volatility. And, like the Pension Plus Plan before it, Pension Plus 2 capped the investment assumed rate of return for that tier of the pension system, this time at an even lower 6%. The reform push has been praised by Standard & Poor’s, which cited pension reform as key in its subsequent decision to increase the state’s credit rating from -AA to AA with a stable outlook after the 2017 reform passed.

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All pension reform efforts should primarily seek to keep all promises made to existing employees and retirees and to support retirement security for current and future members. These principles were on display in Michigan. The state’s pension reforms placed a major focus on limiting the state’s current and future financial exposure. Some Michigan stakeholders insisted employees have the option for a traditional defined benefit, while other stakeholders focused on providing a sound DC plan that would provide portable, quality benefits for the more mobile teachers of today and tomorrow. Although these could be mistaken as competing interests, Michigan proves that is not the case—different plan designs offer different trade-offs and ultimately expand personal choice and responsibility.

COLORADO PERACHOICE DC OPTION

Colorado Public Employees’ Retirement Association (PERA) provides retirement and other benefits to employees at more than 500 government agencies and public entities in the state. Colorado has a long history of offering choice options to its public workers, a tradition the state excels in and continues to build upon.

Colorado PERA’s core DC plan—PERAChoice—was established in 2006 and is structured as a 401(a) for state employees hired from that year on seeking an alternative to PERA’s current defined benefit plan. The legislature expanded eligibility for the PERAChoice DC plan to
community college employees in 2008, then to state university and local government employees in 2019.\textsuperscript{19}

Currently, members contribute 10% of salary for state division employees, 8.5% for local government participant, and 12% for public safety officers. Employers contribute an additional 10.9% for state division employees, 13.6% for state safety officers, and 10.5% for local government division. This adds up to 20.9%, 23.6%, and 20.9% in total contributions for state employers.\textsuperscript{20} These contribution rates exceed the 10%-15% commonly recommended by financial advisors because many members do not participate in Social Security.

For PERAChoice’s core DC, employee contributions automatically vest at 100%, and employer contributions vest at 50%, rising an additional 10 percentage points every year for five years until they reach 100%, at which point if an employee decides to leave he will be entitled to 100% of the employer contributions.

A third party vendor manages the PERAChoice DC core plan and the various supplemental DC plans it offers. Each plan has identical investment options. The plan design allows participants to set their own investment allocation. Members can choose among a list of varying investment funds or a self-directed brokerage account, allowing users a wide breadth of investment options. The vendor provides education and advice to new members and defaults all core DC participants in the appropriate aged-based target date fund.

\textit{Colorado’s PERA DC does not negatively affect the DB plan.}

Furthermore, Colorado’s PERA DC does not negatively affect the DB plan. Colorado requires employers to remit an Amortization Equalization Disbursement and Supplemental Amortization Equalization Disbursement to amortize the DB plan’s legacy debt across total payroll for all PERA members. Actuaries calculate these additional contributions to direct payment to legacy pension debt even as more employees opt for DC benefits.

\textsuperscript{19} Colorado Senate Bill(SB) 18-200.
Reform efforts in Michigan, Arizona, and Colorado are apt evidence that policymakers need not view DB and DC plans as an either/or proposition. These systems can be very complementary. A jurisdiction can find an appropriate balance between the two options that reduces costs and risks to taxpayers while still providing attractive and reliable retirement options for public servants.
CONCLUSION

Many public retirement systems desperately need modernization that recognizes and accommodates an evolving modern workforce’s professional and geographic mobility. Retirement systems built around an expectation of full, multi-decade service at one employer will increasingly fail to ensure retirement security for a workforce largely comprising non-full-career employees. This mismatch creates a need for serious conversations about modernizing benefit offerings, including expanding choice and offering more-portable plan designs, including DC retirement plans.

This brief delineates the best practices that ensure functionality and successful DC retirement plans execution, notably the following features, which are inseparable to a well-designed, well-functioning DC plan:

- Plan Objectives: The plan’s purpose must be clearly stated and understood by all stakeholders.
- Communication and Education: Communicating plan features and educating participants on their options is critical to fulfilling objectives.
- Auto-Enrollment: Making sure all eligible employees participate in the plan is essential.
- Contribution Adequacy: Both employer and employee plan contributions must be sufficient to meet future income needs in retirement.
• Retirement-Specific Portfolio Design: Investments available within the plan should be specifically selected to meet plan objectives, and “one-touch” default options (such as target date funds) must be provided.

• Benefit Portability: Plan design features must meet the modern public sector workforce’s needs.

• Distribution: Asset distribution in retirement should target plan objectives by offering flexible lifetime income options to meet the varying needs of employees.

A properly designed DC retirement plan can meet employee needs for retirement security and mitigate inherent financial risks to taxpayers. Following the best practices outlined here, a jurisdiction can be confident that its public retirement plan will meet the modern workforce’s needs while also addressing state and local governments’ critical financial solvency needs.
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