A Legislator's Guide to Montana's Public Employee Retirement Systems

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STATE ADMINISTRATION AND VETERANS' AFFAIRS INTERIM COMMITTEE 2015-2016

Under section 5-5-228, Montana Code Annotated, the State Administration and Veterans' Affairs Interim Committee provides legislative oversight of Montana's Public Employee Retirement System. This guide is published pursuant to their duties.

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TABLE OF CONTENTS

INTRODUCTION

Why read this?

Legislators must navigate state laws governing 11 different public employee retirement systems (or plans). Nearly every public employer and public employee participates in one of these systems. Benefit levels and employer and employee contribution rates are set in state statute and so are determined by the Legislature.

Each legislative session, legislators examine the fiscal health of the retirement systems, consider various bills amending benefits or funding levels, and engage in policy debates about these systems.

What is at stake?

As of June 30, 2018, the fair market value of trust fund assets in Montana's nine defined benefit public employee retirement plans totaled about $11.3 billion. Total liabilities amounted to about $15.9 billion. As shown in Figure 1, more than 1,000 public employers, about 51,000 active employees, and 44,000 beneficiaries may be affected by legislative decisions.

Figure 1 - Employers, Active Members, and Benefit Recipients

Number of participating public employers (i.e., cities, counties, school districts, state agencies, and other public entities)	1,030
Active members (i.e., working employees)	51,393
Benefit recipients	44,427

Source: June 30, 2018, Actuarial Valuations.

Interim committee role

This guide is published to provide legislators with basic background information about Montana's public employee retirement systems pursuant to statutory duties assigned to the State Administration and Veterans' Affairs Interim Committee (SAVA). Under section 5-5-228, Montana Code Annotated, SAVA is to:

(a) consider the actuarial and fiscal soundness of the state's public employee retirement systems, based on reports from the teachers' retirement board, the public employees' retirement board, and the board of investments, and study and evaluate the equity and benefit structure of the state's public employee retirement systems;

(b) establish principles of sound fiscal and public policy as guidelines;

(c) as necessary, develop legislation to keep the retirement systems consistent with sound policy principles; and

(d) publish, for legislators' use, information on the public employee retirement systems that the committee considers will be valuable to legislators when considering retirement legislation.

Is it a "system" or a "plan"?

Throughout this guide, the terms "retirement system" and "retirement plan" are used interchangeably most of the time. Nearly all of the public employee retirement plans are named "systems" in Montana statute. All but one of these systems consists of a single plan. However, one system, the Public Employees' Retirement System (PERS), actually consists of two different retirement plans, a defined benefit plan and a defined contribution plan. Therefore, with respect to PERS, the term "system" refers to both plans.

Is it a "retirement" or a "pension"?

For the purposes of this guide, the terms "retirement" and "pension" are used interchangeably. The actual names of most of the public employee retirement plans include the words "retirement system."

CHAPTER 1
PRIMER ON RETIREMENT PLANS

What is the purpose of a retirement plan?

Retirement plans started as an alternative method for employers to compensate their employees for services rendered. Employer contributions to pension funds are sometimes thought of as "cheaper" than pay increases because they are made before payroll taxes are calculated.

Later, employers used retirement plans as a recruiting and retention tool that supplemented rather than replaced pay. This rationale, too, evolved to a point where employer-sponsored retirement plans were simply viewed as the socially responsible thing to do.

As pension plans evolved, so did government regulation to ensure the plans remained financially sound, that contracts were honored, and that people were not discriminated against. Ultimately, employers and the Internal Revenue Code focused on encouraging employees to save for retirement. And, employer-sponsored pension plans became cost-sharing plans to which employees could also contribute.

With this historical perspective in mind, retirement plans are usually viewed as a method for employers to compensate and recruit and retain employees. Employees view employer-sponsored retirement plans as their primary way to save and invest their earned compensation so they will have financial security in retirement.[1]

How much income is needed?

A familiar metric used by financial planners to help calculate how much income a person will need to live comfortably in retirement is the income replacement ratio – retirement income expressed as a percentage of preretirement income.

An individual's ideal income replacement ratio may be higher or lower depending on the individual's preretirement salary. For example, a lower-income worker spends a larger proportion of his or her income on housing, food,

[1] Bleakney, Thomas P., F.S.A., *Retirement Systems for Public Employees*, Pension Resource Council, University of Pennsylvania Press, 1991 edition, p. 10 and p. 33. National Conference of State Legislatures, *Public Pensions: A Legislator's Guide*, NCSL, Washington D.C., July 1995.

and transportation, so will need a higher income replacement ratio than an average or higher-income worker. Another consideration is that less income may be needed in retirement because certain costs are lower. For example, income taxes will be lower, a family may no longer have expenses related to raising children, and a house mortgage and car loan will be lower or fully paid off. Thus, how much income a retiree needs will vary from household to household.[2]

Keeping in mind there is not a one-size-fits-all target income replacement ratio, studies have concluded that middle-class families need between 65 and 75 percent income replacement ratio to maintain their lifestyle in retirement, and many experts advise a 70 to 80 percent income replacement ratio.[3]

To achieve an adequate income replacement ratio, a person may need to rely on more than one vehicle for retirement savings. Financial advisers often refer to financial security in retirement as resting on a three-legged stool consisting of an employer-sponsored retirement plan, Social Security income, and personal savings.

How are contributions made in Montana's retirement plans?

As tax-qualified plans, contributions to Montana's public employee retirement plans are made on a pretax basis each pay period. Employee contributions, which are a percentage of the employee's compensation, are withheld from the employee's paycheck and paid directly to the pension plan. Employer contributions are also made directly to the retirement plan.

Two basic plan types: DB or DC

There are two types of retirement plans: defined benefit (DB) plans and defined contribution (DC) plans. There are also a range of hybrid plans that combine different aspects of DB and DC plans. Fundamentally, in a DB plan, benefits are defined and costs must be estimated. In a DC plan, costs are defined, but benefit amounts fluctuate according to the account balance at any given time.

[2] Patrick J. Purcell, "Income Replacement Ratios in the Health and Retirement Study", U.S. Social Security Administration, Social Security Bulletin, Vol. 72, No. 3, 2012.

[3] Ibid.

Irrespective of whether a plan is a DB, a DC, or a hybrid of the two, one equation is universal:

Contributions + Investment Earnings = Benefits + Expenses
(C + I = B + E)

Inherent risks

There are different perspectives concerning the pros and cons of DB, DC, and hybrid plans. Although the risks are the same with any plan, the plan's design dictates how risk is managed and the extent to which the employer and employee share the responsibility for managing the risks.

Any retirement plan will have to cope with the following risks:

- Investment risks and market volatility.
- Longevity risks, i.e., whether the benefit will last to the end of a retiree's life.
- Inflation risks, i.e., how to provide postretirement benefit increases to keep up with cost of living.[4]

Also, DB, DC, and hybrid plans will offer different approaches about how to provide the following:

- Sufficient benefits in retirement.
- Flexibility.
- Portability.[5]

As shown in Figure 2, each type of plan manages risks and responsibilities differently. Which type of retirement plan is "best" depends on the sponsor's policy goals.

[4] Paul Zorn, "Alternative Retirement Plan Designs: Hybrid Plans", *Government Finance Review*, April 2011.

[5] National Conference on Public Employee Retirement Systems, "The Evolution of Public Pension Plans: Past, Present, and Future", March 2008.

Figure 2 - Comparison: DB, DC, and Hybrid Retirement Plans

Issue	DB Plans	DC Plans	Hybrid Plans
Philosophical perspective	**Employer responsibility.** Employer is obligated to provide a base retirement benefit. Contributions are pooled and debts or gains, usually caused by market fluctuations, are shared by employers in the pool. Unfunded liabilities are typical. Reasonable amortization schedule provides financial security and "shock absorber."	**Employee responsibility.** Employer responsibility ends with contribution to the plan. Employee bears investment risks and responsibilities. No gains or losses to a shared plan so no unfunded liabilities, no amortization schedule, and no actuarial valuations.	**Shared responsibility.** The employer guarantees a certain defined benefit amount, which alone is not sufficient. However, depending on the plan's design, the employee's benefit will depend also on the employee's individual account balance, so the employee also has responsibility and bears a risk.
Flexibility	**Less**. A DB plan usually provides only the option of how the defined benefit is to be paid out, e.g., as a single life annuity, joint and survivor annuity, term certain, etc.	**More.** Depending on design, the plan may allow participants to choose contribution amount, investment options, and form of payout.	**Less or more.** Flexibility will depend on plan features, but the DB portion will be less flexible, while the DC portion will add some flexibility.
Portability	**Less**. Employer contributions are not made to individual accounts so if an employee leaves employment before vesting, the employee is usually not eligible for a retirement benefit or to "take" or "transfer" employer contributions.	**More.** Employer contributions are made to individual accounts. Money in the account may not be accessible until retirement, but the employee can continue to manage the account. Actual portability depends on the specific provisions of the plan, which may or may not limit transferability.	**Less or more.** Portability will depend on plan features, but the DB portion will be less portable, while the DC portion will add some portability.

Issue	DB Plans	DC Plans	Hybrid Plans
Investment risk & return	**Risk is assumed by the employer.** To the extent that assumptions or projections differ from actual experience, the pension funds may experience gains or losses. Pension assets are pooled. Gains and losses are smoothed over a long-term period. Risk is therefore minimized.	**Risk is assumed by the employee.** Employees may select a risk/return tradeoff to fit personal circumstances.	**Shared risk.** How this risk is shared will depend on the actual plan's design.
Who benefits	**Career employee.** Typically, longer-term or older employees benefit most.	**Short-term employee.** Typically, shorter-term and younger employees benefit most (depending on investment choices and realization of assumptions).	**Depends on actual plan design.**
Pension security/ longevity risk	**Higher**. The benefit amount is guaranteed and can be counted on for a lifetime.	**Lower**. The actual benefit amount is not known in advance and a retiree could outlive the benefit.	**DB - Higher. DC - Lower.** Actual pension security will depend on the plan's features.
Administrative costs	Paid by plan sponsors.	Paid by plan participants.	Paid by both employer and employees, depending on the plan's features.

Public vs. private plans

Private sector employers have switched from primarily offering DB plans to primarily offering DC plans, such as 401(k) plans. However, DB plans are the predominant plan type in the public sector. According to the U.S. Bureau of Labor Statistics, in 2016, DB retirement plans were available to 63% of state and local government employees, and DC plans were offered to only 37% of state and local government employees.[6]

[6] U.S. Bureau of Labor Statistics, "Employee Benefits Survey, March 2016", available at http://www.bls.gov/ncs/ebs/benefits/2016/benefits_retirement.htm.

Pension regulation and tax treatment

Sections 400 through 419 of Title 26, U.S.C.—Title 26 is the Internal Revenue Code (IRC)—and attendant federal administrative regulations govern public and private pension plans. Plans may be referred to according to the IRC section under which the plan is qualified (e.g., a 401(k) plan, a 403(b) plan, a 457 plan, etc.). Qualified pension plans are plans that comply with the IRC and applicable provisions of the Employee Retirement Income Security Act of 1974 (ERISA). ERISA specifies nondiscrimination standards and regulates reporting and accounting procedures. Qualified plans receive favorable tax treatment; nonqualified plans do not. Except for certain administrative and accounting standards, ERISA does not apply to public pension plans. However, public plans must be qualified under various sections of the IRC in order for employee contributions and accruing benefits to be tax deferred.

Supplemental plans

Montana state government employees and some local government employees may also voluntarily participate in a 457 deferred compensation plan to help supplement their retirement plans.[7] School districts and universities may establish 403(b) plans (i.e., tax-sheltered annuity plans) for their employees, and many Montana school districts and the Montana University System have done so.

An individual public employee may also establish a traditional IRA (individual retirement account) or Roth IRA.[8] Contributions to a traditional IRA are tax deductible if the employee's income does not exceed a certain threshold established in the IRC.

Social Security

The 1935 Social Security Act did not originally allow state and local government employees to participate in Social Security. However, in 1950, the act was amended to make coverage optional for certain state and local government employees, but still left many public employee groups uncovered. The option for states to allow certain public employees to participate was expanded in subsequent amendments to the act. Congress made Social Security coverage mandatory, staring in July 1991, for most state and local government employees

[7] See Title 19, ch. 50, Montana Code Annotated.

[8] Contributions to a Roth IRA are after taxes are paid whereas contributions to a traditional IRA are before taxes. Distributions from a Roth IRA are not taxable if the account holder meets certain conditions.

not already covered by a public pension plan. Coverage is provided to these employees through individual agreements with state and local governments. The net effect of how Social Security coverage has evolved federally and these various agreements is that coverage for public employees varies greatly from state to state.[9]

In Montana, as in many states and localities, public safety employees typically do not participate in Social Security because these professions were not allowed to participate when the Social Security Act was first enacted. According to the Congressional Research Service, about 10.5% of Montana's state and local government employees are not covered by Social Security.[10]

GASB financial reporting

Purpose

New Governmental Accounting Standards Board (GASB) reporting requirements under GASB Statement No. 67, *Financial Reporting for Pension Plans*, and GASB Statement No. 68, *Accounting and Financial Reporting for Pensions,* in 2015 changed how public employers in Montana who participate in a public employee retirement plan must calculate and report pension costs and obligations on their individual governmental financial statements.

According to GASB, the purpose of these new statements was to "improve the decision-usefulness of reported pension information and to increase the transparency, consistency, and comparability of pension information across governments." [11]

An article prepared by the GASB to explain these new requirements stated:

> It is important to note that the new Statements relate to *accounting and financial reporting* issues only—how pension costs and obligations are measured and reported in audited external financial reports. The Statements do not address how governments approach pension plan *funding*—a government's

[9] Congressional Research Service, "Social Security: Mandatory Coverage of State and Local Government Employees", 7-5700, www.crs.gov, R41936, July 25, 2011.

[10] Ibid.

[11] Governmental Accounting Standards Board, *New GASB Pension Statements to Bring about Major Improvements in Financial Reporting*, December 2013. Available online at http://gasb.org/cs/ContentServer?site=GASB&c=Document_C&pagename=GASB%2FDocument_C%2FGASBDocumentPage&cid=1176160140567.

> policy regarding how much money it will contribute to its pension plan each year. While there has been a close relationship between how governments fund pensions and how they account for and report information about them until now, the new guidance establishes a decided shift from the *funding-based* approach to an *accounting-based* approach. The Board crafted its new Statements with the fundamental belief that funding is squarely a policy decision for elected officials to make as part of the government budget approval process.[12]

Why separate reports for each employer?

Under the new GASB statements, the employers who participate in cost-sharing multiple-employer retirement plans (such as Montana's statewide public employee retirement plans) are now required to show pension obligations on their individual financial statements rather than only on a combined financial statement. A GASB article explains:

> Through its research, the GASB concluded that the needs of users of information regarding cost-sharing employers do not differ significantly from those interested in single and agent employers. Therefore, the GASB believes it is important to give users of the financial statements of cost-sharing employers access to better, more transparent financial information. Consequently, under the new standards the GASB is requiring that cost-sharing governments report a net pension liability, pension expense, and pension-related deferred inflows and outflows of resources based on their proportionate share of the collective amounts for all the governments in the plan.[13]

Different pension liability numbers

The way that pension liabilities are calculated and shown under the new GASB requirements is different from the way actuaries calculate and show these liabilities for actuarial valuations. Because of these different calculations, the GASB reports may show a higher pension liability than the actuarially calculated liability and therefore also show a lower funded ratio for the plan.

[12] Ibid.

[13] Ibid.

Implications for bond ratings

Because a governmental entity's financial statement is used by credit-rating companies when assessing creditworthiness, there has been concern about how this new reporting requirement will affect government bond ratings. However, credit-rating companies have indicated that the new pension disclosures will have limited impact on state and local government credit ratings.

Addressing these concerns, the GASB article explains:

> While this information will, in some cases, give the appearance that a government is financially weaker than it was previously, the financial reality of the government's situation will not have changed. Reporting the net pension liability (or asset, if plan net position exceeds the total pension liability) on the face of the financial statements will more clearly portray the government's financial status because the pension liability will be placed on an equal footing with other long-term obligations.[14]

Discount rate and investment return assumptions

Under GASB, the term "discount rate" is used when referring to the assumed rate of return on investments because the calculations involve discounting (or translating) the future value of assets and liabilities into present values. The discount rate used for the GASB report will be the same as the actuarial assumed rate of return used in the actuarial valuations as long as the assets are projected (under GASB calculations) to be sufficient to pay the future benefits. However, if the assets are projected under the GASB calculations to be depleted before the benefit liabilities are due, then the GASB discount rate applied after the date of depletion will be the rate of return on a 20-year tax-exempt municipal general obligation bond with a rating AA/Aa or higher.

Sensitivity studies

The new GASB statements also require a section in the financial report showing sensitivity to future experience with respect to assuming a higher or lower discount rate. Actuarial valuations continue to include a similar section on sensitivity to market changes. Again, the pension liability numbers in the GASB report will be different from the numbers in the actuarial valuations due to differences in how assets and liabilities are calculated.

[14] Ibid.

CHAPTER 2
DEFINED BENEFIT PLANS: STRUCTURE AND FUNDING

How are benefits defined?

As previously noted, DB plans provide a predictable formula-driven monthly benefit for the life of a member and sometimes for the life of a beneficiary. Benefits within a DB plan often also provide disability and death benefits. The traditional formula used to calculate the benefit amount paid in a DB plan is:

Multiplier (%) x Years of Service x Final Average Salary [15]

Assets invested in pooled trust fund

To help pay for future benefits, current contributions are deposited into a pooled pension trust fund. The trust fund's assets are invested by the Montana Board of Investments. As the investments yield returns, the trust fund grows and must ultimately be sufficient to pay for benefits as members retire and the defined monthly benefits come due. Investment income typically accounts for 60 to 70 percent of the funding for retirement plan benefits.

Determining costs

The costs (i.e., how much employees and employers need to contribute to the plan to pay for future benefits) are estimated based on actuarial valuations. An actuarial valuation is a mathematical investigation by an actuary. These actuarial valuations assess the financial condition of the plan at a particular point in time.

Montana law requires that actuarial valuations be conducted annually for each of Montana's DB plans. When estimating costs, actuaries evaluate whether current and expected contributions are sufficient to cover the estimated cost of benefits as they are expected to accrue and be paid in the future. The cost of benefits as they accrue is called the "normal cost." Other costs accrue when or if

[15] Sometimes the term "highest average compensation" or "final average compensation" is used. These terms both mean that an average salary is calculated and the average may be calculated on the final years of employment or based on the highest consecutive years of salary. Each plan's statutes define the parameters for the calculation.

the experience of the plan is different from actuarial projections, which are based on actuarial assumptions.

Actuarial assumptions

When making the projections that help determine the expected normal cost of benefits, an actuary applies various demographic and economic assumptions about future experience.

Key demographic assumptions are made about the following:

- Individual salary increases.
- Retirement rates.
- Disablement rates.
- Mortality rates.
- Terminations of employment.
- Probability of an employee retaining membership in system.

Key economic assumptions are made about the following:

- General salary increases.
- Investment returns.
- Price inflation.
- Growth in membership.
- Interest on member accounts.
- Administrative expenses.

Actuarial gains and losses

If actual experience is different from the assumed experience, the DB plan will have an actuarial gain or loss. For example, if investment returns are better than projected by the actuary, the actuarial valuation will show an actuarial gain equal to the amount that actual investment returns exceeded the actuarial assumed rate of return. If experience is worse than expected, then the retirement plan will have an actuarial loss. For example, if more members become disabled earlier and draw disability benefits for longer than projected, the actuarial valuation will show an actuarial loss. Each actuarial valuation includes a section about the plan's actuarial gains and losses.

Investment rate of return assumption

Because retirement plans rely on investment returns for 60 to 70 percent of their funding, the most significant economic assumption actuaries make is what the rate of return will be on pension fund investments. Accuracy in this assumption is important. An assumption that is too high will cause liabilities and funding needs to be understating, which means the plan's funding will likely be too low to keep the plan solvent. On the other hand, an assumption that is too low will cause liabilities and funding needs to be overstated, which places an undue burden on current employees and taxpayers to make higher contributions than necessary to keep the plan solvent.[16]

Actuaries are guided by standards adopted by the Actuarial Standards Board. The Actuarial Standards of Practice (ASOP) for setting the investment rate of return assumption are set out in ASOP 27 - Selection of Economic Assumptions for Measuring Pension Obligations. These standards advise actuaries to construct their assumptions considering various factors, including but not limited to the time value of money, inflation, illiquidity, credit risk, maroeconomic conditions, and growth in earnings. The guidelines state an actuary should review a broad range of appropriate data and consider the best judgement of investment professionals. Appropriate investment data includes, but is not limited to, the following:

- yields on fixed income or "risk-free" investments;
- past and projected economic growth and interest rates;
- past and projected returns on individual asset classes; and
- past and projected overall investment performance of the plan.

The investment rate of return assumption is actually the sum of two rates – an inflation rate and the real rate of return. Investments in "risk-free" vehicles, such as U.S. Treasury bonds, will typically yield enough income to cover inflation. The second component, the real rate of return, is the rate to be achieved from taking some investment risk, such as investing in equities and real estate.[17]

Actuaries for public employee retirement plans focus on a long-term investment horizon of at least 20 to 30 years, which is the typical length of an employee's working career and eligibility criteria for earning a full service retirement benefit. Nevertheless, short-term volatility in the market does affect the funded ratio

[16] National Association of State Retirement Administrators, "Issue Brief: Public Pension Plan Investment Return Assumptions", updated February 2018.

[17] Ibid.

and amortization schedules for pension plan liabilities. Thus, a plan that is less than 100% funded will be more sensitive to short-term volatility. [18]

An advisory by the Government Finance Officers Association aimed at minimizing a government's exposure to financial risks states:

> The assumed investment rate of return should be the rate that is realistically expected to be achieved over the long term. This rate should be evaluated regularly to ensure it remains realistic. Unrealistically high investment return assumptions are likely to result in a chronically declining funded ratio and higher contributions in the future. Caution should be exercised to ensure the investment return assumption reflects the reasonably expected returns of the plan's asset allocation over a reasonable period of time.[19]

Adjusting assumptions

Actuarial assumptions are tested and adjusted from time to time based on experience studies. An experience study examines the actual history and experience of the system and measures the assumptions against that actual history. Assumptions about mortality, disability, investment returns, and so forth, may then be adjusted accordingly. Outside actuaries may also periodically audit an actuary's work, methodologies, or other elements integral to assessing the financial status of the plan. These peer reviews ensure professional actuarial standards are being followed.

Montana law requires that regular experience studies be conducted for the statewide public employee retirement plans to compare actual experience with the actuarial assumptions. If plan experience shows that the actuarial assumptions need to be adjusted, an actuary will recommend that certain adjustments be made. The governing boards of the plans, who are the fiduciaries of the plan, set the assumptions after receiving recommendations from the actuary. Fiduciaries are legally and ethically accountable for their decisions.

[18] Ibid.

[19] Government Finance Officers Association, "Responsible Management and Design Practices for Defined Benefit Pension Plans", October 2010.

Unfunded liabilities

Actuarial losses or benefit increases applied to past service will result in an actuarial unfunded liability. Unfunded liabilities are typical in DB plans because projections, no matter how good, cannot perfectly predict the future. The road into the future is bumpy and, like a shock absorber on a car, the amount of these actuarial unfunded liabilities fluctuates with the road conditions. Because these liabilities are typical, contributions to DB retirement plans should cover more than the normal cost of benefits. This allows the "extra" contributions to be made available to cover the ups and downs of the plan's experience. Thus, although these liabilities are called "unfunded," if contributions are sufficient to pay more than just the normal cost of benefits, then the balance of the contributions after covering the normal cost fund (i.e., pay off) the actuarial unfunded liabilities over time.

Annual required contribution

The term "annual required contribution" (ARC) refers to the total contribution needed (based on an actuarial valuation) to fund the normal cost of benefits as they accrue and to pay down the plan's unfunded liabilities in a reasonable amount of time. This amount of time is called an amortization period.

Amortization period

A plan is considered actuarially sound if the unfunded liabilities are being paid off within a reasonable amount of time, or amortization period. The most commonly accepted standard for actuarial soundness is if the unfunded liabilities amortize in 30 years or less according to the latest actuarial valuation. Again, because the road of experience is bumpy, the amortization period, like the system's actuarial unfunded liabilities, will increase and decrease like a shock absorber; and again, the ultimate goal is for contributions to be sufficient to cover the normal cost of benefits as well as pay for a good shock absorber so that even when road conditions are bad, the amortization period does not exceed 30 years.

Funded ratio

Another key indicator of actuarial soundness is the extent to which current assets cover current liabilities. Current assets include the value of all of the trust fund's investments. Current liabilities include the value of all accrued benefit

obligations. The ratio of assets to liabilities is called the funded ratio. If a DB plan has an unfunded actuarial liability, a DB plan's funded ratio will be less than 100%. Experts advise DB plans to maintain at least an 80% funded ratio. However, retirement boards and legislative bodies may adopt policies that target a 100% funded ratio, or even a more than 100% funded ratio in order to provide a cushion against adverse plan experiences, such as a market downturn.

Both funded ratio and amortization period matter

The fiscal health of a DB plan should be measured both in terms of the amortization period and the plan's funded ratio. A DB plan's liabilities may amortize in less than 30 years, but if the plan's funded ratio is less than 80%, then the fiscal health of the plan is not as good as experts advise. Conversely, a plan may be 80% funded, but if the unfunded liabilities are not being paid off in less than 30 years, the plan is also not as healthy as desired.

In summary

To summarize, in DB plans:

- Contributions are pooled and invested as a whole.
- Benefits are defined, but costs are estimated through actuarial valuations.
- Actuarial valuations are based on economic and demographic assumptions, which are adjusted based on experience studies.
- Unfunded liabilities are typical because long-term assumptions will differ from short-term experience. Therefore the long-term trend is what matters most.
- In general, to be actuarially sound, contributions must be sufficient to allow the amortization period to absorb the ups and downs of short-term experience and still remain at 30 years or less.
- A plan's funded ratio should be at least 80%, but the policy goal may be 100% funding or more to keep the plan solvent even during significant market downturns.

CHAPTER 3
DEFINED CONTRIBUTION AND HYBRID PLANS

Account balance determines benefit

Defined contribution plans provide for a set contribution rate but do not promise a certain benefit. Plan members have individual accounts to which the contributions are made. The member then directs how those contributions are invested.[20] However, the investment options available depend on what the plan sponsor provides. Each participant's account balance at retirement depends on total contributions plus investment earnings (or losses) to that point in time. When the participant retires, the balance of the account may be rolled over and reinvested or converted to a monthly annuity.

Because contribution amounts are defined and costs are known, a DC plan has no unfunded liabilities and does not rely on actuarial projections about the future.

Employee bears risk and responsibility

In a DC plan, the employee is responsible for making investment choices and takes the risk of contributions plus investment earnings being insufficient to provide adequate income in retirement.

Hybrid plans

As previously mentioned, hybrid plans combine different elements of a DB plan and a DC plan. For example, in Montana's largest public employee retirement system, the Public Employees' Retirement System, a member's benefit is calculated under both a DB formula and a DC (money purchase) formula. The member is paid the higher of the two benefit amounts.

There are two broad categories of hybrid plans:

- cash balance plans; and
- combination plans.

[20] Defined contribution plans have a "default" investment that is used whenever an employee fails to direct the investment of the contributions made to his or her account. The investment options are limited to a menu of options composed most often of stock mutual funds, bond mutual funds, and money market funds.

Cash balance plans

Under a cash balance plan, members have individual retirement accounts. Contributions, as in a DB plan, are set as a percentage of pay. Then, each account is credited with a certain amount of interest, as defined by the plan, depending on plan goals. The benefit ultimately paid, as in a DC plan, depends on the individual's account balance at retirement. However, as in a DB plan, the individual's account balance is a guaranteed amount based on the contributions and interest credited to the account, not on actual investment earnings.

The U.S. Department of Labor explains:

> A cash balance plan is a defined benefit plan that defines the benefit in terms that are more characteristic of a defined contribution plan. In other words, a cash balance plan defines the promised benefit in terms of a stated account balance. In a typical cash balance plan, a participant's account is credited each year with a "pay credit" (such as 5 percent of compensation from his or her employer) and an "interest credit" (either a fixed rate or a variable rate that is linked to an index such as the one-year treasury bill rate). Increases and decreases in the value of the plan's investments do not directly affect the benefit amounts promised to participants. Thus, the investment risks are borne solely by the employer. [21]

There are numerous variations of cash balance plans, such as having the interest that is credited indexed to actual investment returns, or setting an interest rate depending on the employee's years of service, to name just two.

Combination DB/DC plans

The most common hybrid plan is a combination DB/DC plan. Under this type of plan, part is a traditional DB plan, while the other part is a traditional DC plan. For example, the plan may provide that the employer contribution is deposited to a pooled DB plan trust fund, which guarantees a floor benefit to the member. Meanwhile, the employee's contributions are deposited to the DC portion of the plan, which is an individual account invested by the employee in the investment options provided by the plan. At retirement, the member's benefit is the floor

[21] Employee Benefits Security Administration, U.S. Department of Labor, "Cash Balance Pension Plans", January 2014. Frequently Asked Questions webpage at http://www.dol.gov/ebsa/faqs/faq_consumer_cashbalanceplans.html.

DB benefit plus the member's DC account balance.[22] Again, there are a variety of ways to design a DB/DC hybrid plan.

In summary

To summarize, in DC plans:

- The employer is obligated to contribute a certain defined amount to an employee's account, not to provide a defined benefit. Thus, the employer's costs are known.
- Members take the risk and responsibility of directing their own investments based on a set menu of investment options.
- Benefits at retirement depend on an individual's account balance at retirement.

[22] National Conference on Public Employee Retirement Systems, "The Evolution of Public Pension Plans: Past, Present and Future", March 2008, pg. 10.

CHAPTER 4
MONTANA'S RETIREMENT PLANS

Overview

Montana's public employee retirement systems consist of nine DB plans and two DC plans. These systems cover nearly all state, local government, and school district employees. All but one of the systems are cost-sharing plans, meaning that both employees and employers contribute to the plans.

MPERA systems

Nine of Montana's retirement plans (8 DB plans and 1 DC plan) are governed by the seven-member, governor-appointed Public Employees' Retirement Board (PER Board). Administrative staff for the PER Board are organized as the Montana Public Employees' Retirement Administration (MPERA). The retirement plans governed by this board are often referred to as MPERA systems. These MPERA systems are described briefly in Figure 3. More information about the PER Board and MPERA is available at http://mpera.mt.gov/.

Figure 3 - MPERA Systems

System	Description
PERS Public Employees' Retirement System - PERS-DB plan (default) - PERS-DC plan (optional)	Consists of two plans: a DB plan and an optional DC plan. Covers most of the general classified positions in state agencies and participating local governments, including school districts. Local governments and school districts contract with MPERA to participate in PERS. The PERS-DC plan was implemented on July 1, 2002, as an optional plan. Newly hired PERS-eligible employees have 12 months to decide whether to remain in the DB plan, the default plan, or to transfer to the DC plan. Largest of Montana's public employee retirement systems.
JRS Judges' Retirement System (DB plan)	Covers district court judges, the supreme court justices, the chief water judge, and the associate water judge employed by the state judicial branch.
HPORS Highway Patrol Officers' Retirement System (DB plan)	Covers state highway patrol officers.

System	Description
SRS Sheriffs' Retirement System (DB plan)	Covers sheriffs, sheriffs' deputies, certain others employed in the county sheriff's office, and state investigators employed by the Montana Department of Justice.
GWPORS Game Wardens' and Peace Officers' Retirement System (DB plan)	Covers game wardens employed by the state and specified state law enforcement positions, including campus security officers.
MPORS Municipal Police Officers' Retirement System (DB plan)	Covers police officers employed by participating cities, towns, and municipalities.
FURS Firefighters' Unified Retirement System (DB plan)	Covers paid firefighters employed by participating cities, towns, and municipalities.
VFCA Volunteer Firefighters' Compensation Act pension trust fund (DB plan)	Covers the volunteer (uncompensated) firefighters of qualifying volunteer fire companies organized in unincorporated areas.

Teachers' Retirement System

Teachers in school districts and some state institutions, not including the faculty of the University System, are covered by the Teachers' Retirement System (TRS), which is also a DB plan. The TRS is governed by a six-member governor-appointed Teachers' Retirement Board. More information about TRS is available at https://trs.mt.gov/.

Montana University System Retirement Program

Faculty of state-funded higher education institutions belong to the Montana University System Retirement Program (MUS-RP). This is a DC plan. The fiduciary body governing the MUS-RP is the Board of Regents. This plan was originally called the Optional Retirement Program (ORP) because when it was first established in 1987, faculty could choose between TRS or the optional DC plan.[23] However, to stabilize plan membership and the financial impact on TRS, the ORP

[23] Ch. 494, Laws of Montana, 1987.

became a mandatory plan in 1993.[24] It was not until 2013 that the Legislature enacted a bill to change the program's name to the University System Retirement Program, and thus eliminate the word "optional."[25]

Investment management

For the MPERA and TRS DB plans, assets are managed and invested by the Montana Board of Investments (BOI) as part of the state's unified investment program.

For the PERS-DC plan, MPERA contracts with several retirement fund companies to provide a menu of investment options for plan members.

For the MUS-RP, the Board of Regents contracts with the Teachers Insurance and Annuity Association – College Retirement Equities Fund (TIAA–CREF) for plan administration and investment options.

Constitutional protections

Retirement plan assets, which include contributions and investment earnings, are constitutionally protected trust funds. Each plan's governing board members are the plan's responsible fiduciaries, which means they must act only in the best interest of plan members and their beneficiaries. Also, pension funds must be invested based on the "prudent expert" rule.[26] Montana's constitution also provides that retirement system funding may not be diverted or encumbered for any other purpose.[27]

Article VIII, Section 13, of the Montana constitution reads in part:

> **Section 13. Investment of public funds and public retirement system and state compensation insurance fund assets.** ...
>
> (3) Investment of public retirement system assets shall be managed in a fiduciary capacity in the same manner that a prudent expert acting in a fiduciary capacity and familiar with the circumstances would use in the conduct of an enterprise of a

[24] Ch. 178, Laws of Montana, 1993.

[25] Ch. 282, Laws of Montana, 2013.

[26] Art. VIII, sec. 13, Montana Constitution.

[27] Art. VIII, sec. 15, Montana Constitution.

> similar character with similar aims. Public retirement system assets may be invested in private corporate capital stock. ...

Article VIII, Section 15, of the Montana constitution reads:

> **Section 15. Public retirement system assets.** (1) Public retirement systems shall be funded on an actuarially sound basis. Public retirement system assets, including income and actuarially required contributions, shall not be encumbered, diverted, reduced, or terminated and shall be held in trust to provide benefits to participants and their beneficiaries and to defray administrative expenses.
>
> (2) The governing boards of public retirement systems shall administer the system, including actuarial determinations, as fiduciaries of system participants and their beneficiaries.

At-a-glance summary tables, or green sheets

The Legislative Services Division, in collaboration with the staff of the retirement systems and Board of Investments, has developed summary tables to provide an "at-a-glance" view of benefits, membership, funding status, and investment returns, for each of Montana's public employee retirement systems. These tables have become known as the "green sheets." They are available separately from the Montana Legislative Services Division research staff for the State Administration and Veterans' Affairs Interim Committee and online under the topic of "pension oversight" on the following web page, www.leg.mt.gov/sava.

Why so many plans?

Most of Montana's statewide public employee retirement systems originated as local government and school district plans. For example, in 1899, only 10 years after Montana achieved statehood, the Sixth Legislature authorized each municipality to establish a fire department. Each municipality that established a fire department was required to establish a "disability fund," to be used to compensate firemen[28] disabled in the line of duty only, i.e., there weren't any specific provisions for firefighters killed in the line of duty or who had worked as firefighters for years (until at least age 45, at which time they were forced into

[28] "Firemen", not "firefighter", is the term used in the law and in 1899, the force of a fire department was likely to be composed of men only. The law also lists as "qualifications of firemen": qualified voter of the city or town; less than 45 years of age; and having passed a physical examination by a practicing physician. (See Sec. 5, HB 17, p. 74, L. 1899.)

retirement). By 1911, however, the system had metamorphosed into a disability plan and a retirement system.[29]

In the meantime, state employee retirement systems initially covered only state employees. Gradually, local governments were given the option of merging their local plans into a statewide system. As compliance with federal tax regulations and management of pension fund investments become more complex, local governments found themselves struggling to keep their funds solvent and in compliance with regulations. Gradually, more and more local jurisdictions opted to join the state's plans or to combine their local plans into one statewide plan, such as was done with respect to the municipal police officers' and firefighters' unified retirement plans.

The following is a list of the year each plan was formed:

- 1935 VFCA
- 1937 TRS
- 1945 PERS and HPORS
- 1963 GWPORS
- 1967 JRS
- 1974 MPORS and SRS
- 1987 MUS-RP

While a few localities continue to sponsor their own local plans (for police or for firefighters), the majority of local government employees are members of one of the statewide systems. As an aside, a local government is statutorily authorized to secede from the state system provided that the withdrawing entity pays the actuarial cost of withdrawing, which is one reason that such withdrawals are increasingly rare.

Actuarial assumptions

As previously noted, actuaries use economic and demographic assumptions when conducting actuarial valuations. These assumptions are developed based on a long-term analysis of actual experience based on standards adopted by the Actuarial Standards Board.[30] The governing boards for the retirement systems set these assumptions based on the actuary's recommendations.

[29] For a more complete discussion of the history and development of Montana's public employee retirement systems see *An Overview of the Development and Status of Montana's Public Employee Retirement Systems* by David D. Bohyer and David S. Niss, October 2007, Legislative Services Division.

[30] See http://www.actuarialstandardsboard.org/ for more information on the ASB and the standards of practice that guide how actuaries develop these assumptions.

Figure 4 shows what economic assumptions are currently used for the MPERA systems and TRS based on the most recent experience studies for these systems.

Figure 4 - Economic Assumptions for Montana's Plans
Effective July 1, 2018

Economic Assumption	MPERA Systems	TRS
Investment return	7.65%	7.50%
General wage increase	3.50%	3.25%
Price inflation	2.75%	2.50%

Demographic assumptions are not summarized in this guide. Information on these assumptions is provided in the actuarial valuations for each system and are listed in the actuarial valuation assumptions and methods policies of the respective retirement boards.[31]

Investment return assumption

Because investment income is the primary source of funding for any retirement plan, the investment return assumption is the most significant assumption used when estimating costs. Actuaries make the investment return assumption recommendation based on an extensive long-term analysis of investment returns.[32]

Since 2008, many state retirement plans have reduced their rate of return assumptions because of the significant market losses in 2001 and 2008, which obviously affected the actual experience of the pension plans.

According to data reported by NASRA, as of June 30, 2018, the median investment rate of return assumption among public pension plans surveyed was 7.45%.[33]

[31] For the MPERA systems, the valuations are available at http://mpera.mt.gov/. For TRS, the valuation is available at https://trs.mt.gov/.

[32] See Actuarial Standard of Practice No. 27, paragraph 3.8 for standards of practice related to the selection of investment return assumptions, available online at http://www.actuarialstandardsboard.org/asops/selection-economic-assumptions-measuring-pension-obligations/#38-selecting-an-investment-return-assumption.

[33] National Association of State Retirement Administrators chart at http://www.nasra.org/investment.

The Montana TRS Board reduced its rate of return assumption from 8% to 7.75% in 2005, and to 7.5% effective July 1, 2018.

The Montana PER Board reduced its assumed rate of return from 8% to 7.75% in 2010, and to 7.65% effective July 1, 2018.

CHAPTER 5
COMPARISONS WITH OTHER STATES

Presentation to SAVA

The State Administration and Veterans' Affairs Interim Committee (SAVA) received a special presentation at its March 6, 2018, meeting from national experts comparing Montana's PERS and TRS systems with surrounding states: Idaho, Nevada, North Dakota, South Dakota, Utah, and Wyoming.

A comparison presented by Mr. Keith Brainard from the National Association of State Retirement Administrators (NASRA) showed, in general:

- Montana's benefits under PERS and TRS are lower than the benefits provided in each of the other states in the comparison, except for the Utah plan.

- The funded ratios of Montana's PERS and TRS are in the middle of the pack when compared to the other states.

The full presentation by Mr. Keith Brainard is available online by navigating from SAVA's homepage (www.leg.mt.gov/sava) to the March 6, 2018, meeting materials web page.

Plan design

According to the National Association of State Retirement Administrators (NASRA):

- In 25 states, traditional DB plans are the only type of plan provided.

- In 9 states, new hires after a specified date must join a DC plan or a DB-DC hybrid plan (AK, CT, GA, KS, KY, MI, OK, TN, and VA).

- Some type of choice between a DB plan or a pure DC plan or a hybrid plan is provided for in 12 states (AZ, CA, CO, FL, IN, MI, MT, OH, PA, SC, UT, WA, and WV).

- Two states provide a pure DC plans as the primary plan with no other optional provided (AK and MI).

- Cash balance plans are in some way part of the mix in 5 states (CA, KS, KY, and TX).[34]

Benefit formula multipliers

As previously mentioned, the basic pension benefit formula in a DB plan and that is used to calculate the normal retirement benefit in all but one of Montana's state-sponsored defined benefit plans[35] is expressed as:

Multiplier (%) x Years of Service x Final Average Salary[36]

The percentage used in the benefit formula is sometimes referred to as the "escalator" or "multiplier."

General employees

Based on a 2015 Wisconsin legislative report comparing 70 public employee retirement systems among all 50 states, the benefit multiplier per year of service in Montana's PERS falls within the norm.

The Wisconsin study found the multiplier used most frequently in retirement plans for general employees was between 1.5% and 1.7% per year of service (in 19 plans). The next most frequent range of multipliers was 1.9% to 2.1% (in 17 plans). The third most frequent range was 1.7% to 1.9% (in eight plans).[37]

Legislation passed by Montana's 2011 Legislature changed the multiplier for PERS members hired on or after July 1, 2011, to create a tiered system as follows:

[34] National Association of State Retirement Administrators, "Overview of Primary Retirement Benefit Plan Type, by State," July 2018. Available online at http://www.nasra.org//Files/Topical%20Reports/Plan%20Design/Overview%20of%20Primary%20Retirement%20Benefit%20Plan%20Type.pdf.

[35] The formula is not applicable to members under the Volunteer Firefighters Compensation Act. See section 19-17-404, MCA. The current monthly benefit is $7.50 x years, with a maximum monthly benefit of $150.

[36] Some systems use the term "highest average compensation".

[37] Daniel Schmidt, "2015 Comparative Study of Major Public Employee Retirement Systems", Wisconsin Legislative Council, December 2016, pg. 25. Available at https://docs.legis.wisconsin.gov/misc/lc/comparative_retirement_study/2015_retirement.pdf

- For members with less than 10 years of service, 1.5% per year.
- For members with 10 to 29 years of service, 1.786% per year.
- For members with 30 or more years of service, 2% per year.

A hybrid feature of PERS is that the retirement benefit is also calculated according to a money purchase formula, which is double the member's contributions, plus regular interest as determined by the PERB. The regular interest credited in PERS for 2015 was 0.25%.[38] A PERS retiree receives whichever benefit amount is greater between the two calculations.

Teachers

Data collected by the National Education Association (NEA) shows that the most frequent multiplier among the large pension plans surveyed for teachers was between 2.0% and 2.24% per year of service. The second most frequent multiplier was between 1.5% and 1.74% per year of service.[39]

In Montana's TRS, the multiplier is 1.667% per year of service. However, for a member hired on or after July 1, 2013, and who retires with 30 or more years of service and is at least age 60, the multiplier is 1.85% per year of service.

Public safety employees

Retirement benefits for public safety personnel are generally higher in most states than for general employees. Potential reasons for the higher benefits include the following: (1) the benefits provide compensation for the higher risk in public safety professions; (2) public safety professionals tend to have shorter lives and are entitled to the actuarially determined higher benefit; and (3) public safety positions are often not covered by Social Security.

In Montana, most positions covered by MPORS, FURS, and HPORS are not covered by Social Security. In 1997, the Legislature equalized the multipliers among MPORS, FURS, SRS, and HPORS by raising the sheriffs' and firefighters' multipliers to 2.5%. In 2001, the Legislature increased the multiplier for the GWPORS to 2.5% as well.

According to an NCSL report, this 2.5% multiplier is within the 2.5% to 2.99% range found in 49% of other statewide public safety retirement plans in which

[38] The interest credit is set by the PERB annually.

[39] National Education Association, *Characteristics of Large Public Pension Plans*, January 2016, pg. 76. Available at https://www.nea.org/assets/docs/HE/CharacteristicsLargePubEdPensionPlans2016.pdf

officers are not covered by Social Security and in 35% of the retirement plans in which employees are covered by Social Security.[40]

Final average compensation

According to the Wisconsin legislative report, the most frequently used period for determining a final average compensation in primary public employee retirement plans is 5 years, which is up from the 3 years that was most frequently used in 2010. Fiscal pressures caused by investment losses in 2001 and 2008 prompted Montana's 2011 Legislature to join several other states in increasing the final average compensation period in PERS, SRS, and GWPORS from 3 years to 5 years for new hires. This increase in the number of years used to calculate an average compensation results in lower benefits. Montana's other DB plans remain at a 3-year-average period for computing the final average compensation used in the benefit formula.

Years of service and age

General employee plans

According to the Wisconsin survey, the most frequent retirement eligibility criteria for general classified employees is 30 years of service and age 55 or older.[41]

Montana's PERS for members hired before July 1, 2011, provides for normal retirement at the following:

- 30 years or service and any age.
- 5 years of service and age 60.
- Age 65 regardless of years of service.

If hired on or after July 1, 2011, Montana's PERS provides normal retirement at the following:

- Age 65 with age least 5 years of service.
- Age 70 regardless of years of service.

[40] Ronald Snell, "State Retirement Plans for Public Safety Employees", National Conference for State Legislatures, August 2012.

[41] Daniel Schmidt, "2015 Comparative Study of Major Public Employee Retirement Systems", Wisconsin Legislative Council, December 2016, pg. 12. Available at https://docs.legis.wisconsin.gov/misc/lc/comparative_retirement_study/2015_retirement.pdf

Teachers

According to the NEA report, the most common normal retirement age for teachers' public retirement plans is age 60 or 62, while the most common years of service requirement of retirement at any age is 30 years of service. There are wide-ranging differences among teachers' retirement plans when age and service requirements are combined.[42]

Public safety employees

In public safety professions, there is an occupational incentive to leave the profession when age and "burnout" begin to affect job performance. Thus, years of service and age requirements for normal retirement eligibility are typically lower in public safety retirement plans than in plans for general employees.

An NCSL study reports that the most frequently used age criteria among the studied public safety retirement plans was age 50.[43] Twenty years of service is also a norm, and many plans provide for normal retirement with 20 years of service regardless of age.

There are age and service eligibility differences among Montana's public safety plans as follows:

- HPORS and SRS provide a 20-year retirement at any age.
- MPORS and FURS provide a 20-year retirement at any age, or 5 years and age 50.
- GWPORS provides a 20-year retirement at any age, or 5 years and age 55.

Vesting period

A member becomes entitled to receive some retirement benefits—i.e., he or she "vests" or becomes "vested"—when the member has contributed to the system for a certain number of years. According to the Wisconsin survey, 52% of the

[42] National Education Association, *Characteristics of Large Public Pension Plans*, January 2016. Available at https://www.nea.org/assets/docs/HE/CharacteristicsLargePubEdPensionPlans2016.pdf.

[43] Ronald Snell, "State Retirement Plans for Public Safety Employees", National Conference for State Legislatures, August 2012.

plans required 5 years of service to vest, while 30% required 10 years of service.[44]

Montana's Legislature has enacted laws to establish a 5-year vesting period uniformly among Montana's public retirement plans. However, in 2013, the Legislature increased the vesting period in the HPORS to 10 years in an effort to reduce the normal cost of benefits going forward and thereby improve the actuarial funding of the plan.[45]

Postretirement benefit increases

Prior to 1997, Montana's legislature has been periodically persuaded to provide *ad hoc* increases to the monthly benefits of current retirees to mitigate the effects of inflation, which were seriously eroding the value of the retirement benefits over time. However, *ad hoc* increases are not prefunded by contributions or investment earnings. Therefore, these increases added significantly to the unfunded actuarial liabilities of the plans.

In 1997, the Legislature enacted a 1.5% "guaranteed annual benefit adjustment" (GABA) for retirees in all MPERA systems, except the VFCA.[46] A similar 1.5% GABA was enacted for TRS in 1999. In 2001, the Legislature increased the 1.5% GABA for the MPERA systems to 3%.[47] However, after market losses significantly hurt the pension plans, the 2007 Legislature reduced the GABA for new hires in PERS, HPORS, SRS and GWPORS back to 1.5%.[48] And, in 2013, the Montana Legislature reduced the GABA for employees in PERS and TRS hired on and after July 1, 2013, to an adjustable amount based on the actuarial funding status of the plan to a maximum of 1.5%. The GABA in JRS, MPORS, and FURS, continues to be 3%.

[44] Daniel Schmidt, "2015 Comparative Study of Major Public Employee Retirement Systems", Wisconsin Legislative Council, December 2016. Available at https://docs.legis.wisconsin.gov/misc/lc/comparative_retirement_study/2015_retirement.pdf.

[45] Ch. 272, Laws of Montana, 2013

[46] As a money purchase DC plan, the MUSRP cannot provide for a postretirement benefit increase. The PERS/DC plan did not exist in 1997 but, had it existed, it also could not provide a postretirement increase.

[47] Ch. 149, Laws of Montana, 2001.

[48] Ch. 371, Laws of Montana, 2007.

Most of the plans (92%) included in the Wisconsin study provide some sort of cost-of-living adjustment (COLA). According to the study:

- 34% of the plans index the adjustments to the Consumer Price Index (CPI).
- 28% of the plans provide a set percentage, similar to Montana's GABA.
- 24% of the plans still provide *ad hoc* adjustments.
- 6% of the plans spend investment earnings above the assumed rate of return.[49]

The Social Security COLA, which is indexed to the CPI, between 2010 and 2018 has been as follows:

Year	SS COLA
2010	0.0%
2011	3.6%
2012	1.7%
2013	1.5%
2014	1.7%
2015	0.0%
2016	0.3%
2017	2.0%
2018	2.8%[50]

[49] *2012 Comparative Study of Major Public Employee Retirement Systems*, by Daniel Schmidt, Wisconsin Legislative Council, Dec. 2012, pp. 30-35.

[50] Social Security Administration. COLA history available at https://www.ssa.gov/oact/cola/colaseries.html

CHAPTER 6
HISTORICAL PERFORMANCE

Investment return and peer comparison

Smoothing gains and losses

The actuaries for Montana's pension plans smooth investment gains and losses over four years. This reduces the impact of market volatility when assessing the long-term fiscal soundness of the pension plan. This in turn allows for a more steady approach to funding decisions. Thus, when legislators look at the results of an actuarial valuation, they should keep this smoothing in mind because only 25% of the market loss or gain will be used in the valuation for that fiscal year.

Figures 5 and 6 show the actual investment return experience of PERS and TRS, and the smoothed actuarial return compared to the investment return assumptions adopted boards.

Peer comparison

Independent consultants for the BOI reported the following to the BOI in August 2018:

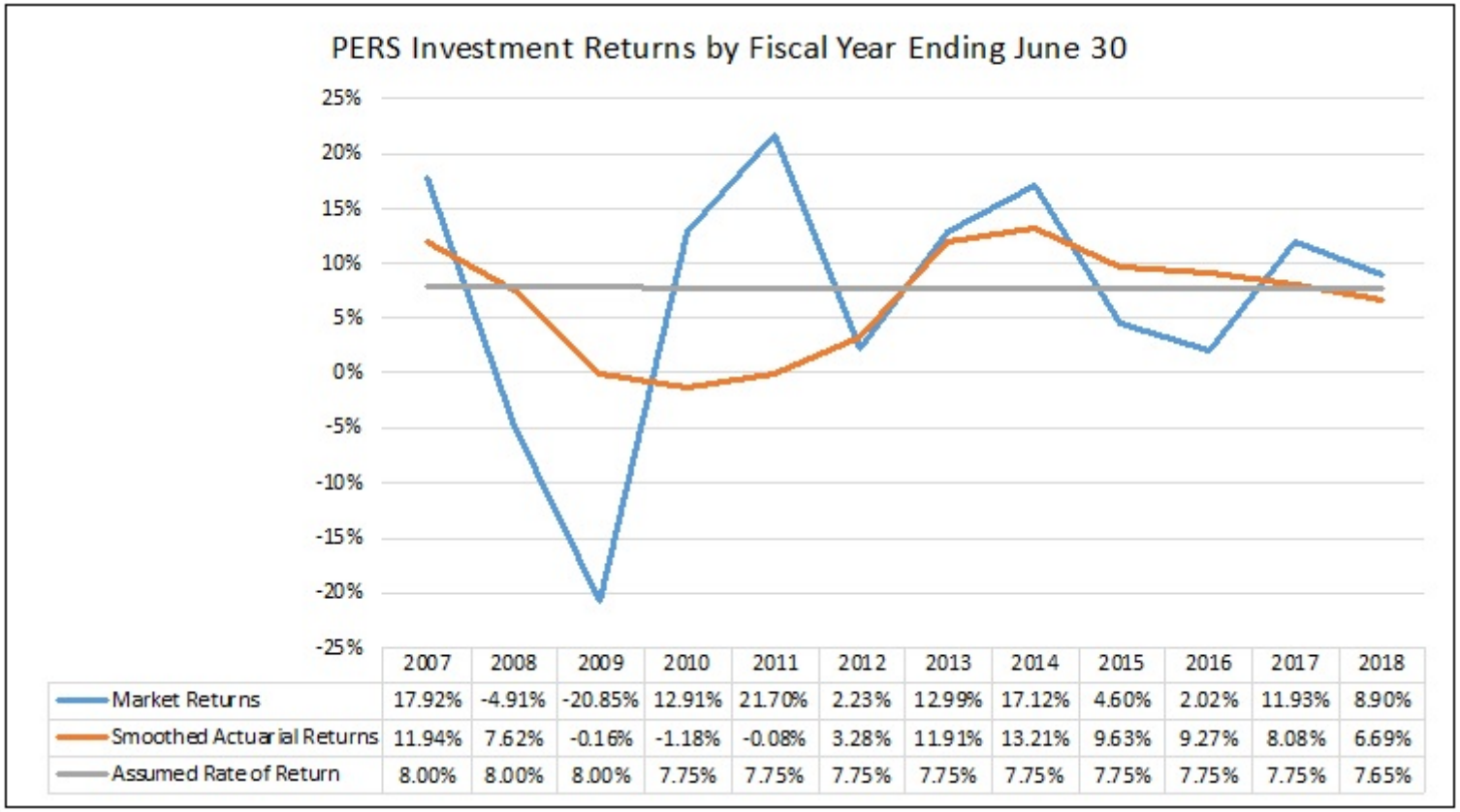
- Montana's 5-year net total return of 9.7% on pension fund investments was above both the U.S. public median of 9.0% and the peer median of 9.2%.[51]

- Montana's total pension fund investment expenses were slightly lower than the peer median.[52]

[51] CEM Benchmarking presentation to the Montana Board of Investments (BOI) on Benchmarking Results, August 14, 2018, p. 4. Available at the BOI website, www.investmentmt.com, under Board Meeting Materials for August 14-15, 2018.

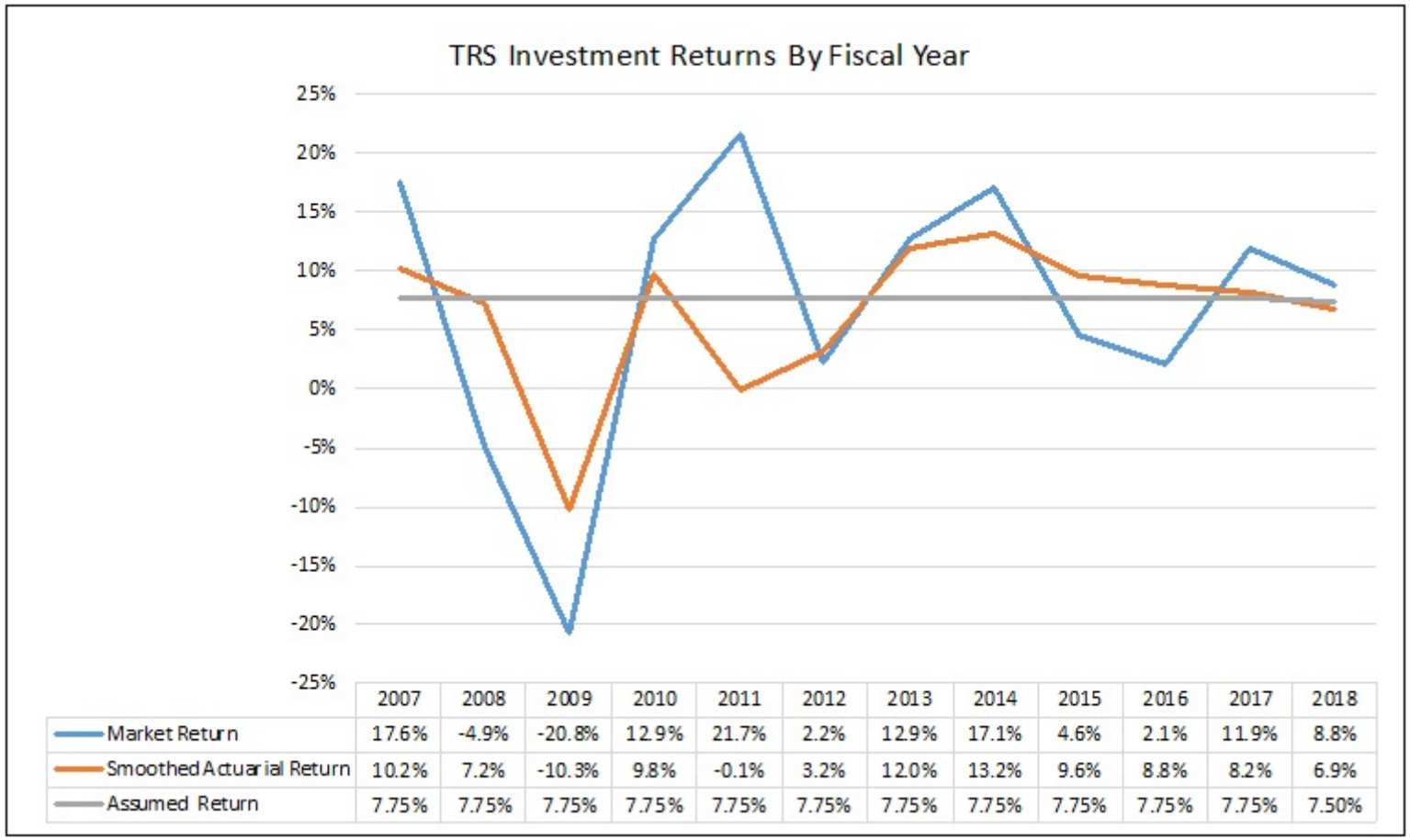
[52] Ibid., p. 12.

Figure 5 - PERS Investment Return History



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Market Returns	17.92%	-4.91%	-20.85%	12.91%	21.70%	2.23%	12.99%	17.12%	4.60%	2.02%	11.93%	8.90%
Smoothed Actuarial Returns	11.94%	7.62%	-0.16%	-1.18%	-0.08%	3.28%	11.91%	13.21%	9.63%	9.27%	8.08%	6.69%
Assumed Rate of Return	8.00%	8.00%	8.00%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.65%

Figure 6 - TRS Investment Return History



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Market Return	17.6%	-4.9%	-20.8%	12.9%	21.7%	2.2%	12.9%	17.1%	4.6%	2.1%	11.9%	8.8%
Smoothed Actuarial Return	10.2%	7.2%	-10.3%	9.8%	-0.1%	3.2%	12.0%	13.2%	9.6%	8.8%	8.2%	6.9%
Assumed Return	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.50%

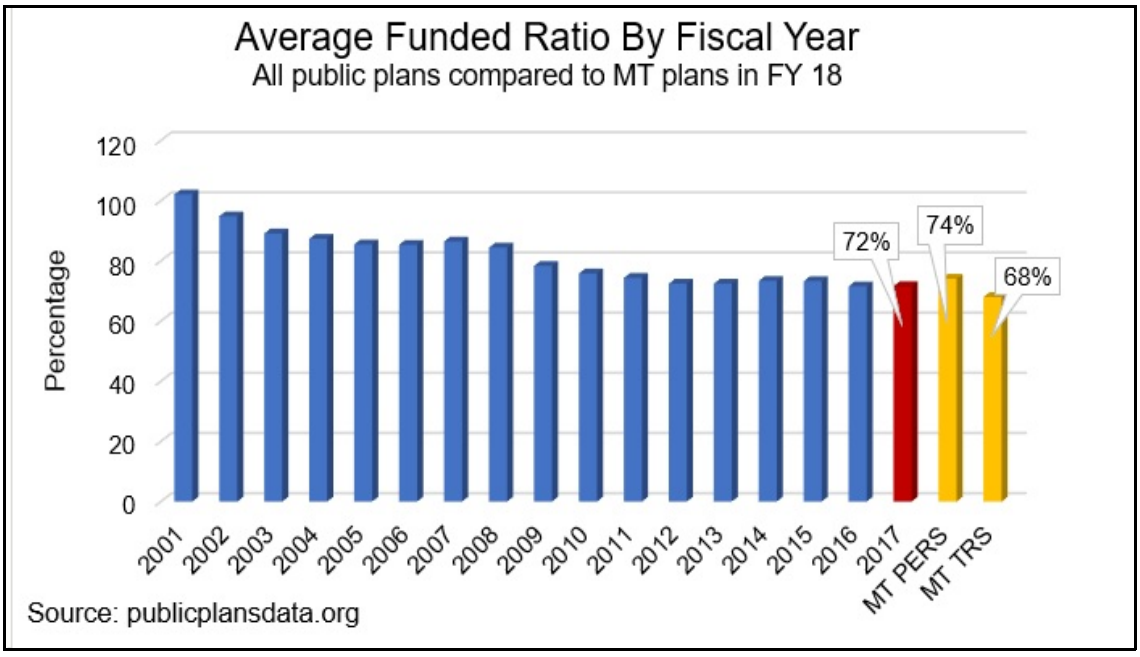
Funded ratio

As previously explained, a plan's funded ratio reflects the extent to which a plan's current and future benefit obligations are covered by current assets. The measurement is a percentage of total funding needs. The funded ratio is determined by an actuarial valuation, which is a snapshot in time, June 30 or the end of a fiscal year. The long-term trend over time helps place the funded ratio in context with the bigger picture of the plan's overall fiscal health. The ideal goal is to be 100% funded, or more, to absorb market ups and downs.

According to nationwide data compiled by the publicplansdata.org collaboration, the average funded ratio of state and local DB retirement plans has been decreasing since the market downturn in 2001. For FY 2017, the average funded ratio of these plans was about 72%.[53]

The funded ratio for FY 2018 in Montana's PERS was 74%, which is slightly above this national average. However the funded ratio in TRS for FY 2018 was 68%, which was slightly below the national average.

Figure 8 - Average Funded Ratio Comparison



[53] National Data, graph on Actuarial Funded Ratio under Actuarial Funding section. Available online at http://publicplansdata.org/quick-facts/national/.

Figure 9 - PERS Funded Ratio History

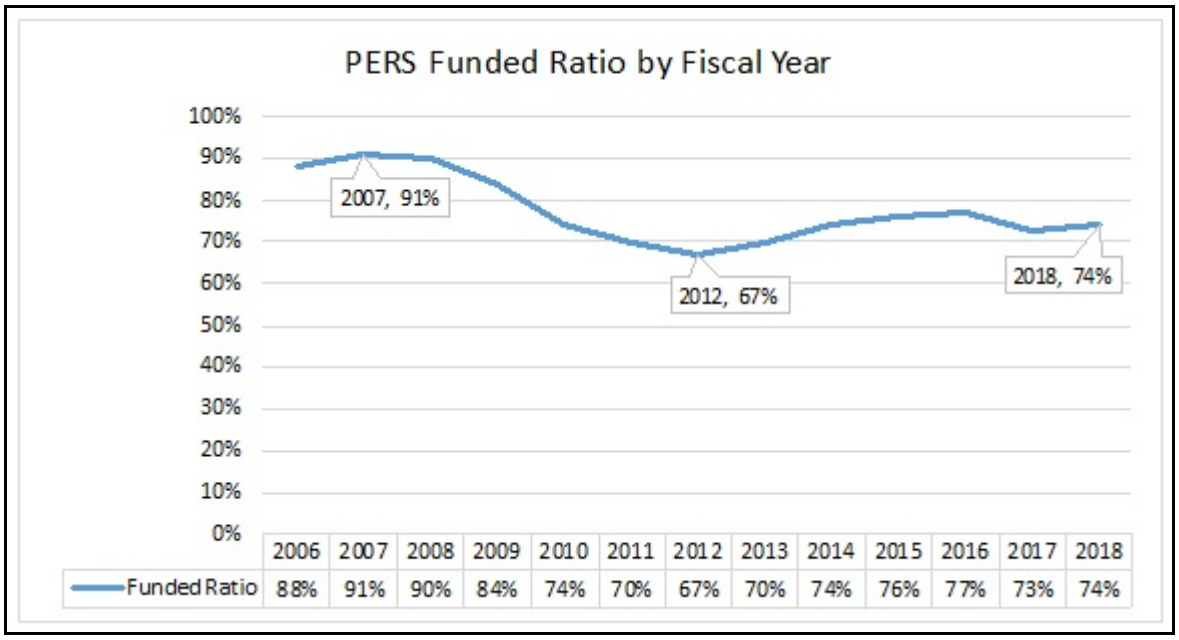
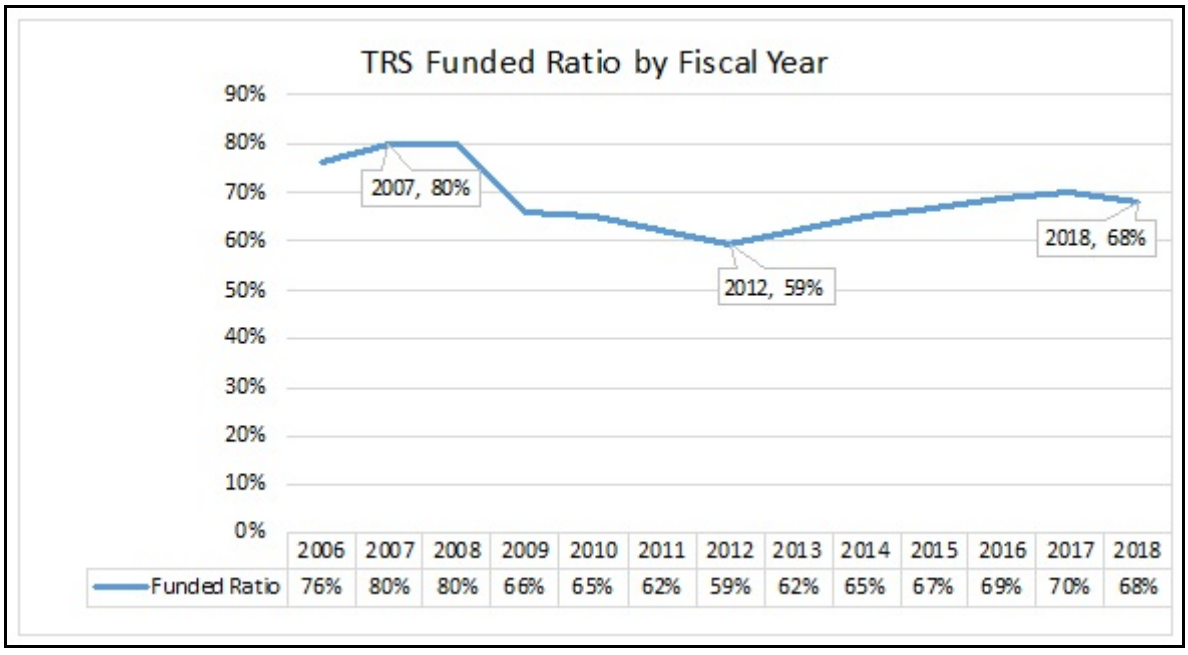


Figure 10 - TRS Funded Ratio History



Amortization period and the Annual Required Contribution (ARC)

The more contributions and investment earnings exceed the normal cost of benefits, the faster the plan's unfunded actuarial accrued liabilities (UAAL), i.e., those liabilities and future obligations not covered by current assets, can be paid off. To be actuarially sound, contributions and investment earnings must be sufficient to pay off the UAAL in 30 years or less.

Because plan asset values fluctuate with market ups and downs, a plan's amortization period also increases and decreases, like a shock absorber for a vehicle on a rough road. Thus, although each year's amortization period is a key factor in assessing a plan's fiscal health, it should be considered in context with the plan's long-term progress toward 100% funding.

Applying economic and demographic assumptions, actuaries can calculate the current contribution amount estimated as necessary to pay off a plan's UAAL in 30 years. This contribution amount is called the annual (or actuarial) required contribution (ARC). But, to pay off the UAAL in less than 30 years and continue to progress toward 100% funding, contributions must exceed the ARC.

Some states have enacted statutes that require employer contributions to equal the ARC. This means employer contributions will automatically increase or decrease as the ARC changes. But, again, if progress is to be made toward full funding, the overall trend in contributions must, over time, exceed the ARC.

A NASRA study examined 112 state public pension plans, including the District of Columbia, to determine the extent to which the ARC was being funded in these plans from FY 2001 through FY 2013. The study found most states made a reasonable effort to fund their share of pension contributions during the period covered by the study. The study also found the following:

- Montana was one of nine states where, on a weighted average, contributions exceeded the ARC.
- All but two states paid at least one-half of their ARC.
- All but six states paid at least 75 percent of their ARC.
- On average, plans received 89.3 percent of their ARCs.[54]

[54] NASRA, *Spotlight on* "The Annual Required Contribution Experience of State Retirement Plans, FY 01 to FY 13", March 2015. Available at https://www.nasra.org/files/JointPublications/NASRA_ARC_Spotlight.pdf

Figure 11 - PERS Amortization Period History

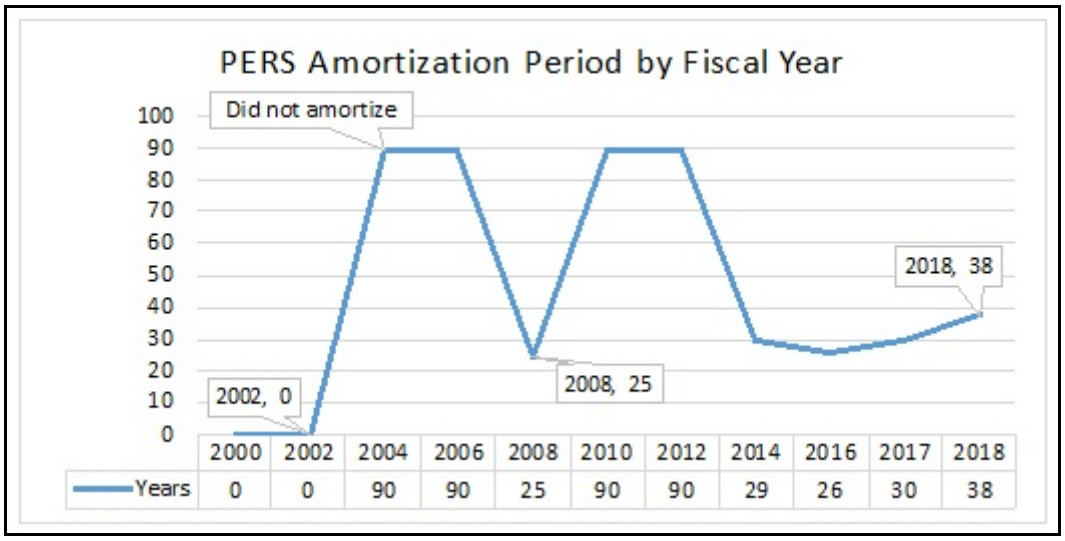
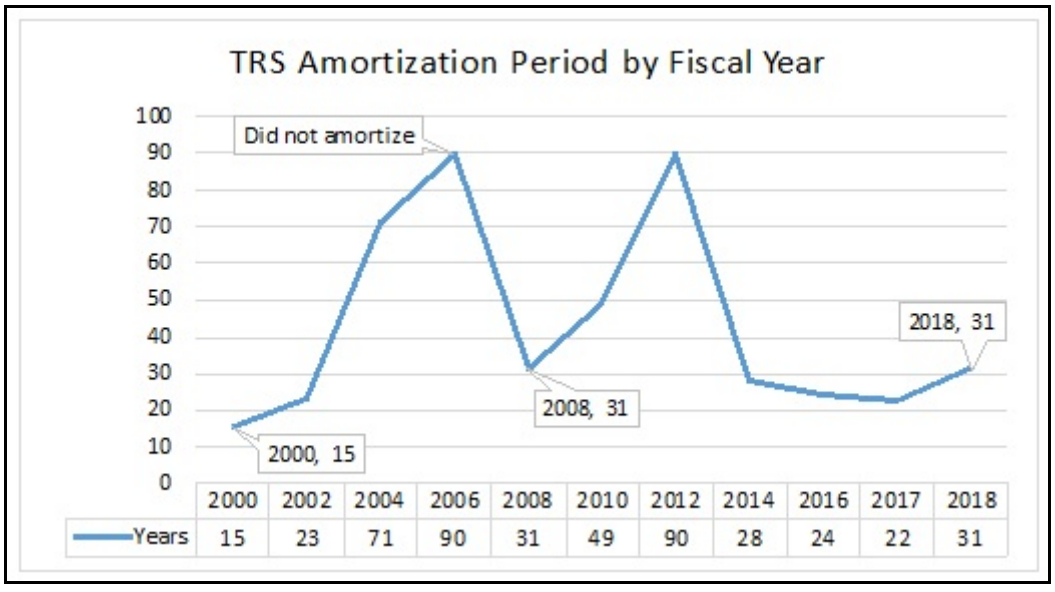


Figure 12 - TRS Amortization Period History



***Note:** For purposes of the graphs, 90 years means unfunded liabilities did not amortize in any amount of time.

Surrounding states

Figure 13 shows the funded ratios and the percentage of the ARC paid in other states' retirement plans for general public employees for FY 2017.

Figure 13 -
Funded Ratios in Montana PERS and Surrounding States[55]

State	Funded Ratio in 2017 (Plan for General Employees)	Percentage of ARC Paid in FY 2017
Idaho	86%	106%
Montana	73%	100%
North Dakota	70%	68%
South Dakota	100%	100%
Wyoming	76%	100%

[55] Public Plans Data, a project of the Center for Retirement Research at Boston College, FY 2015 state data at http://publicplansdata.org/.

CHAPTER 7
POLICY ISSUES AND RISK ASSESSMENTS

Benefit enhancements

Legislators considering bills to change benefits in DB plans may find it helpful to consider some of the funding and policy implications of benefit enhancements in DB plans.

Past-service liability

Additional unfunded liabilities are created whenever a benefit enhancement is applied to past service. The liability occurs because the contribution rates for past service were set based on the projected costs of the previous benefits. A benefit enhancement increases the normal cost of the system going forward. But, if it also applied to service that was performed in the past, a past-service liability is created.

One way to avoid liability for past service is to make a benefit enhancement applicable only to new members. However, this creates a tiered benefit structure and results in unequal treatment of members within the same retirement system, which sometimes translates to political pressure to equalize benefits.

Ratchet effect

Another policy issue involves what is termed the "ratchet effect." Just as a ratchet can be tightened but not loosened, legal protections related to contract rights often mean that once a retirement benefit is promised to members, it cannot be withdrawn from or reduced for those members.

Although the Legislature has reduced benefits of future employees, equity and fairness arguments have resulted in bills passed by the Legislature to reinstate the higher benefits for all employees. As mentioned above, this creates a past-service liability and costs that may be beyond what would have been the costs if the benefit had never been reduced.

Benefit swaps

Benefit-for-benefit "swaps" can sometimes be designed and are legal, provided that the new benefit is of equal or greater value than the old benefit. Such swaps were used to help fund a portion of the costs of the 1.5% GABA granted to certain plans by the Legislature in 1997.[56]

Leapfrog effect

Another policy issue may arise if the Legislature passes a benefit enhancement in one system, but not in the other similar systems. If a benefit is increased for members of one system during a legislative session, the Legislature is likely to see a bill to grant that benefit enhancement, or a better benefit, in the other systems as well. This is often referred to as the "leapfrog effect."

Granting benefit enhancements by allowing the retirement plans to play leapfrog with each other can lead to inconsistent and inequitable retirement policy as well as additional costs and unfunded liabilities. To help prevent leapfrogging, legislators may want to ask proponents of benefits enhancements this question: "If the proposed benefit enhancement is appropriate for members of this system, is it appropriate and should it be granted for members of other systems?"

Funding options

A legislator who is asked to support a benefit enhancement may also be asked to support one of the following funding mechanisms:

- *Increase contributions to sufficiently fund the enhancement:* Contributions should be sufficient to fund both the normal cost of the enhancement and to amortize in 30 years or less any unfunded past service liability. Raising employer contributions in a retirement system places an additional burden on the employer's budgets. Furthermore, where local governments are the employers, increasing employer contributions may be considered an unfunded mandate. On the other hand, employees cannot legally be asked to contribute more than the normal cost of their benefits.

[56] Ch. 287, L. 1997. The Statement of Intent attached to the legislation (HB 170) read, in part, "the bill provides that the GABA be substituted for other benefits in cases in which the GABA is as valuable or more valuable to members. The resulting actuarial savings will reduce the additional funding required for the GABA."

- *Extend the amortization schedule:* If contributions are not raised enough to cover the costs of enhancing benefits, the system's unfunded liability will increase. A system's unfunded liabilities may be "refinanced" by extending the amortization schedule. Policymakers asked to extend the amortization period should consider sound policy principles to determine how far the amortization period may be extended before the system is no longer responsibly funded.[57]

- *Apply the enhancement to new hires only:* Applying an enhancement to new hires and future service only will help control costs because no debt for past service is created. However, this future-application-only option results in a tiered system in which members of the same plan will receive different benefits.

Fixing funding shortfalls

Funding shortfalls since the significant pension investment losses in 2001 and again in 2008 created significant new unfunded liabilities for public retirement plans, and state legislatures are grappling with how to address these funding shortfalls so that the plans regain sound actuarial funding.

To address funding shortfalls, legislative options are limited to increasing contributions and reducing benefits.

With respect to increasing contributions, legislators should keep in mind that an employee's contributions may not be increased to an amount that is more than the normal cost of the employee's benefits. Thus, increasing the employer contributions or finding an additional source of funding are the only options available.

With respect benefit reductions, legislators are faced with the fact that courts have determined because of contract rights benefits cannot be reduced for current members, only for new hires, which means it will take about 10 to 20 years before the lower costs for reduced benefits will significantly help a plan's funding status. The policy challenge is how to balance benefit reductions with the obligation to provide employees with an opportunity to earn an adequate retirement benefit.

[57] As previously noted, the MCA defines "actuarially sound basis" as requiring amortization of unfunded liabilities in 30 years or less. Section 19-2-409, MCA.

Pension reform

In recent years, the Legislature has considered various pension reform bills seeking to redesign the DB plans to shift some or all of the risk and responsibility from the employer to the employee by creating hybrid plans or freezing the DB plans and moving employees to a DC plan. (See Chapter 1 for a discussion of DB, DC, and hybrid plans.)

One of the key policy challenges legislators encounter when crafting reform bills is how to address the fiscal impact these reforms have on the long-term benefit obligations in the DB plans. Because DB plan funding relies on future contributions to meet funding obligations, if those contributions are diverted to the new plan or the horizon for realizing investment returns on those contributions is reduced, then the long-term experience of the plan will be fundamentally changed from the actuarial assumptions used when contribution amounts were set. As was discussed in Chapter 2 concerning DB plan funding, such changes will increase unfunded liabilities (i.e., create liabilities that are not funded by the contributions that were set to pay future benefits). Thus, any fundamental reform of the DB plans requires careful actuarial analysis and consideration of how to continue to pay for the DB plan's liabilities if employees (and the contributions for those employees) are moved out of the DB plan and into a DC or hybrid plan.

Fiscal notes

The Governor's Office of Budget and Program Planning (OBPP), assisted by retirement system staff, prepares the fiscal notes for all retirement legislation with fiscal implications. Each fiscal note is required to show anticipated costs over the near term. However, the financial obligations incurred when retirement legislation is passed will be ongoing (i.e., as long as benefits are to be paid, which can extend for the life of a retired member and to that member's beneficiary).

In an effort to provide legislators and others with information necessary to make an informed assessment, the OBPP has developed a specialized format for fiscal notes prepared on retirement system-related legislation.

Whenever retirement legislation with a fiscal impact is passed and the future of the affected retirement system is changed, an actuarial calculation is required in order to project the long-term costs. Thus, when legislators seek to amend retirement legislation, new fiscal information can be made available only after the system's actuary has conducted this analysis.

Among the key information that legislators should look for in a fiscal note is:

- *Will the normal cost of benefits be changed?*
- *Will new unfunded liabilities be created?*
- *How will the amortization period and funded ratio be affected?*

Risk Assessments and Reporting

Adverse experience

Due to significant market losses in 2001 and the financial crisis sometimes referred to as the 2008 Great Recession, public employee pension plans suffered serious investment losses. Negative market returns were dramatically lower than the actuarially assumed rate of return, and unfunded liabilities increased significantly. To keep retirement plans solvent, many state legislatures, including the Montana legislature, provided cash infusions, significantly increased contributions, and reduced benefits for future members. Thus, policymakers became painfully aware of how sensitive public pension plans are to stress in the financial markets and adverse plan experience compared to actuarial assumptions. (See Chapter 2 for more information about assumptions and actuarial gains and losses.) As a result, there is a heightened interest in helping policymakers understand, through additional stress testing and reporting, the financial consequences when actuarial assumptions prove to have been too optimistic.

Current actuarial reporting

Currently, every annual actuarial valuation report includes a section detailing the plan's actuarial gains and losses (i.e., how plan experience has differed from the assumptions) in the last fiscal year. Every valuation also includes a section on the investment rate of return assumption and the plan's sensitivity to future experience if the investment return is above or below the assumed rate of return.

Additionally, experience studies typically performed every 5 years examine whether actuarial assumptions should be adjusted to better anticipate actual experience. Based on these studies, retirement boards may adjust the actuarial assumptions for future valuations. Changes in assumptions, particularly in the investment rate of return assumption, will increase or decrease the actuarial liabilities of the plan and therefore change the contribution rate the actuary recommends as the annual required contribution (ARC).

Legislators may access these annual valuations and experience studies online at the following links:

- For TRS reports, go to https://trs.mt.gov/TrsInfo/NewsAnnualReports.
- For MPERA system reports, go to http://mpera.mt.gov/ABOUT/ActuarialStudies.

New reporting under ASOP 51

To help policymakers and plan sponsors better understand the risk of experience differing from the actuarial assumptions, the Actuarial Standards Board recently issued a new Actuarial Standard of Practice (ASOP) to supplement current risk and sensitivity reporting. Under ASOP 51, entitled "Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions", pension actuaries are instructed to better educate plan sponsors about the potential for actuarial losses due to adverse plan experience.

For actuarial valuations conducted after Nov. 1, 2018, actuaries should provide additional information about the following:

- investment risk - the potential for investment returns different than expected;
- asset/liability mismatch risk - the potential that changes in asset values are not matched by changes in the value of liabilities;
- interest rate risk - the potential that interest rates will be different than expected;
- longevity and other demographic risks - the potential that mortality or other demographic experience will be different than expected; and
- contribution risk - the potential that actual future contributions are different from expected contributions, for example, because contributions are not made in accordance with the plan's funding policy.

Recommendations for additional reporting

Although NASRA notes that no consensus exists regarding additional stress testing and reporting beyond the actuarial standards of practice, some organizations are recommending additional stress testing and reporting based on additional criteria. One such organization is The Pew Charitable Trust.

At the Nov. 13, 2018, SAVA meeting, Legislative Fiscal Division staff briefed committee members on some of the financial risks associated with Montana's pension plans. The briefing provided perspective on the amount of state general fund being used to shore up Montana's pension funds compared to employer and employee contributions and illustrated that benefit reductions have not yet provided any significant savings to the pension plans. The briefing also highlighted the magnitude of pension obligations compared to other state funding obligations.

A fact sheet from Pew was handed out as part of the briefing. In the fact sheet, Pew recommends broader stress testing and additional reporting that it says "builds on existing reporting requirements by evaluating plan solvency and

employer costs against multiple economic scenarios and levels of financial market volatility".

The Pew fact sheet also encourages the use of Pew's stress testing simulation model and cites a number of states that have conducted stress testing based on this model or adopted reporting requirements so that similar information is provided by system actuaries. According to the fact sheet, states that have performed this type of stress testing include California, Colorado, Connecticut, Hawaii, Virginia, Washington, Pennsylvania, and Minnesota.

Legislative options

What can legislators do with the information provided by risk assessments, stress tests, and sensitivity studies? As previously mentioned, legislators cannot dictate what assumptions the retirement boards adopt or override court decisions about the employer's obligation to provide the benefits already earned, but the legislature may enact legislation to revise the following aspects of a retirement plan and its funding going forward:

- contribution amounts;
- benefit amounts;
- plan design; and
- certain investment criteria.

Legislative changes in each of these areas have fiscal and policy implications and involve pros and cons. Asking for increased reporting on potential risks may assist legislators in understanding the fiscal and policy implications and in weighing these pros and cons.

After all the information is reported and considered, the fundamental policy question that remains for legislators is: what should contribution amounts be now to pay the cost of benefits in the future?

If, based on these risk assessments and stress tests, the legislature believes that the risk of adverse experience is too high or the actuarial assumptions are too optimistic (i.e., the assumed rate of return on investments is to high) the legislature may choose to fund the system based on a scenario in which the

plan's experience is more adverse than the assumptions (i.e., a lower rate of return assumption). This will help mitigate the potential financial consequences if adverse scenarios come to pass, (i.e., an unanticipated market crash). However, it will also require higher contributions now.

Thus, the bottom line challenge for legislators is how best to balance potential risks of adverse future experience with the policy goal of keeping pension funding obligations contemporary. Keeping pension funding obligations contemporary means trying to ensure future generations are not saddled with past liabilities and that current employees and employers/taxpayers are not required to pay more than the actual cost of their benefits. Because estimating costs requires actuarial assumptions, the risks and potential consequences of actuarial losses will always be part of this equation.

CHAPTER 8
POLICY PRINCIPLES

Long-term consistency

Decisions made during one legislative session will have lasting impacts on the benefits paid over the life of a retiree and the retiree's beneficiaries and on the long-term funding obligations of public employers and therefore taxpayers. Thus, legislative policy should be carefully set and consistently applied.

NCSL recommendations

In 1995, the Public Pension Working Group of the National Conference of State Legislatures (NCSL) adopted and recommended to state legislatures four principles for sound and consistent retirement policy.[58]

I. *Pensions should provide financial security in retirement.*

II. *Pension funding should be a contemporary obligation.*

III. *Pension investments should be governed by the "prudent expert rule."*

IV. *Pension benefits should be equitably allocated among beneficiaries.*

In Montana, a legislative interim committee in 1997 examined these NCSL principles and made several recommendations to the full Legislature to promote sound and consistent policy in Montana. The committee made one modification to the first principle, adding the words "the base for" in front of "financial security."[59]

Since these principles were first adopted, they have survived several iterations.

[58] National Conference of State Legislatures, *Public Pensions: A Legislator's Guide*, NCSL Working Group on Pensions, 1995.

[59] *Legislative policy objectives for Montana's Public Employee Retirement Systems : 1999-2000 Interim* , by Sheri Heffelfinger, State Administration, Public Retirement Systems, and Veterans' Affairs Interim Committee, 1999-2000.

SAVA's recommendations

Section 5-5-228, MCA, requires that the interim SAVA committee recommend policy principles to the full legislature to help guide legislative decisions on retirement bills. The policy principles SAVA adopted on Nov. 17, 2016, are shown below. They are the same as the NCSL principles, except that Principle I was changed by adding the language shown by the underlining.

I. *Pensions should provide the base of financial security in retirement. Retirement is the statutorily-defined years of service and age to be attained for a full retirement benefit.*

II. *Pension funding should be a contemporary obligation.*

III. *Pension investments should be governed by the "prudent expert rule."*

IV. *Pension benefits should be equitably allocated among beneficiaries.*

Appendix A

Chronology of Significant Pension Plan Events

Funding health and challenges

1997 PERS more than 100% funded. A 1.5% GABA[60] enacted for MPERA[61] plans. Interim study results in recommendation to establish a DC plan within PERS by 2001.

1999 TRS funding status healthy. A 1.5% GABA enacted for TRS.

2000 The PERS-DB, SRS, and GWPORS were either more than 100% funded or nearly 100% funded. Financial markets peaked.[62]

2001 The GABA for MPERA plans was increased from 1.5% to 3%. PERS-DC plan implemented as an optional plan. Market began a sharp decline.[63]

2002 Market hit bottom.[64]

2004 The unfunded liabilities in PERS and SRS did not amortize in any amount of time, so systems were actuarially unsound.

2005 The TRS unfunded liabilities did not amortize (system actuarially unsound). December 2005 special session: the Legislature appropriated from the general fund $25 million to PERS-DB and $100 million to TRS. Market slowly recovering.[65]

2006 During the 2005-2006 interim, SAVA study examined pension funding and investments.

2007 The legislature reduced the 3% GABA in PERS, HPORS, SRS, HPORS, and GWPORS to 1.5% for new hires. Modest employer contribution increases were passed for TRS and MPERA systems but were phased in over two bienniums beginning July 1, 2007. A state supplement contribution from the general fund was used to offset the contribution increases for local government and school district employers. The Legislature also appropriated $50 million from the general fund to TRS as a second cash infusion. Interim

[60] GABA is a guaranteed annual benefit adjustment (i.e., cost-of-living increase) for retirees.

[61] Montana Public Employee Retirement Administration, which administers all of the retirement systems except TRS and the University Systems' Optional Retirement Program.

[62] E-Trade Market Data Express for S&P 500 index.

[63] Ibid.

[64] Ibid.

[65] E-Trade Market Data Express for S&P 500 index.

study of pension plan funding and plan design alternatives, but no recommendations.

2008 Market began another sharp decline.[66]

2009 SAVA interim study of retirement plan design and funding options. Outside actuarial consulting firm hired. The study produced two competing bill recommendations concerning only TRS. One bill failed. A bill establishing a cash balance plan tier in TRS was passed by the Legislature but vetoed by the governor.

2011 The Legislature passed contribution increases and reduced benefits for new hires in PERS-DB, SRS, and GWPORS and also closed certain loopholes and tightened provisions in TRS to improve actuarial soundness.

2013 The legislature raised HPORS vesting period from 5 years to 10 years, raised period to calculate highest average salary from 3 years to 5 years, raised benefit multiplier from 2.5% per year of service to 2.6%. In PERS, increased employer and employee contributions, provided for contributions from coal tax revenue, and reduced the GABA.[67] In TRS, raised employee contributions, increased GF supplemental contributions, reduced the GABA[68], increased benefit multiplier for members with 30 years of service and who are at least age 60.

2017 Unfunded liabilities in SRS and GWPORS did not amortize in any amount of time. The Legislature increased employer contributions in SRS but a bill to increase contributions in GWPORS failed.

Reform proposals introduced but not passed

Funding challenges and lawmakers' concerns about the long-term obligations to taxpayers to fund DB plan benefits in the midst of the market declines led to the introduction of several bills to reform one or more of the retirement plans. None of the bills passed, but the chronology offers perspective on how Montana's Legislature sought to respond to funding challenges.

2007 HB 827 (Himmelberger) - Establishing a new mandatory DC plan for future TRS and PERS members

2009 HB 679 (Stahl) - Freezing DB plans and moving to a DC plan

[66] Ibid.

[67] The GABA reduction in HB 454 was challenged as a breach of contract and a district court has enjoined implementation of the reduction.

[68] The GABA reduction in HB 377 was challenged as a breach of contract and a district court has enjoined implementation of the reduction.

2011 HB 608 (Stahl) - Freezing DB plans and moving to an annuity benefit program
SB 54 (Balyeat) - Establishing a TRS cash balance hybrid tier for new hires
SB 328 (Lewis) - Requiring new hires under PERS to join PERS-DC plan

2013 HB 338 (Regier) - Requiring all new public employees to join a revised and expanded PERS-DC plan

SB 82 (Lewis) - Requiring new hires under PERS to join DC plan

SB 333 (Arthun) - Establishing a cash balance tier in PERS and TRS

SB 406 (Dee Brown) - Statutory referendum requiring new hires in PERS and TRS to join a DC plan

2015 HB 408 (Hertz) - Revise contract rights for new members of public employee retirement plans

2017 HB 436 (Burnett) - Constitutional amendment to require voter approval for employer contribution increases in the retirement systems

HB 449 (Burnett) - Require actuarial report using alternative assumptions for investment earnings

SB 263 (Brown) - Revise laws on public retirement system investments

Recent legislative history, key bills

2013 Joint pension oversight session committee established to consider all recommended reform and funding bills.

HB 454 (McChesney) - Passed. Provided full actuarial funding for PERS and reduced the GABA. Key provisions included:

- Funding from coal severance tax revenue and interest.
- Temporary increases in employer and employee contribution rates.
- Reducing the GABA based on actuarial funding status of the plan. (Note: The reduction for current members was invalidated by the court after a lawsuit was filed on the grounds that the benefit reduction for current members was an unconstitutional impairment of a contract.)

HB 377 (Woods) - Passed. Provided full actuarial funding for TRS, revised benefits for new hires, reduced GABA. Key provisions included:

- Creating two membership tiers and reducing benefits for tier two (new) employees.
- A temporary increase in employee contributions (an adjustable supplemental contribution rate).
- Providing for a one-time sweep of school district retirement fund operating reserves in excess of a decreased statutory cap.

- Providing for a professional retirement option (a higher benefit calculation) for new members who attain a higher age and/or years of service threshold.
- Reducing the GABA based on the actuarial funding status of the plan. (Note: The reduction for current members was invalidated by the court after a lawsuit was filed on the grounds that the benefit reduction for current members was an unconstitutional impairment of a contract.)

2015 No major funding or benefit changes.

2017 HB 383 (Custer) increased employer contributions in the Sheriff's Retirement System to address funding shortfalls caused by investment losses that had resulted in the system becoming actuarially unsound.

APPENDIX B

GLOSSARY

"401(k) plan" or "401(k)": a defined contribution plan governed by section 401(k) of the IRC that is offered to employees and in which they may voluntarily participate on an individual basis. A 401(k) allows an employee to set aside tax-deferred income for retirement purposes. In some 401(k) plans, the employer will match an employee's contributions dollar-for-dollar.

"403(b) plan" or "403(b)": a retirement plan governed by section 403(b) of the IRC that is similar but not identical to a 401(k) plan and is offered by nonprofit organizations, such as universities and some charitable organizations.

"457 plan" or "457": a tax-exempt deferred compensation program governed by section 457 of the IRC that is made available to employees of state and federal governments and agencies. A 457 plan is similar to a 401(k) plan, except there are never employer matching contributions and the IRS does not consider it a qualified retirement plan.

"Accrued benefit": a retirement, pension, or disability benefit that an employee has earned based on years of service. Accrued benefits are often calculated in relation to the employee's salary and years of service.

"Accumulated contributions": the sum of all the regular and any additional contributions made by a member in a defined benefit plan, together with the regular interest on the contributions.

"Active member": a member who is a paid employee making the required contributions and is properly reported for the most current reporting period.

"Actuarial assumption": an estimate made for the purposes of calculating benefits. Possible variables include life expectancy, return on investments, interest rates, and compensation.

"Actuarial cost": the amount determined to represent the present value of the benefits to be derived from the additional service to be credited based on the most recent actuarial valuation for the system.

"Actuarial equivalent": a benefit of equal value when computed on the basis of the mortality table and interest rate assumptions of the retirement plan. It reflects the condition in which two or more payment streams have the same present value based on the appropriate actuarial assumptions.

"Actuarial liabilities": the excess of the present value of all benefits payable under a defined benefit retirement plan over the present value of future normal costs in that retirement plan.

"Actuary": a highly trained professional of a special area of finance who deals with the financial impact of risk and uncertainty. Actuaries have a deep understanding of financial-security systems, their reasons for being, their complexity, their mathematics, and the way they work.

"Annuity": in the case of a defined benefit plan, equal and fixed payments for life that are the actuarial equivalent of a lump-sum payment under a retirement plan and as such are not benefits paid by a retirement plan and are not subject to periodic or one-time increases. In the case of the defined contribution plan, an annuity is a payment of a fixed sum of money at regular intervals, which may or may not be for life.

"Book value": the value of an asset or liability that value might be higher or lower than the market value of the asset or liability. The book value reflects depreciation or appreciation accruing to the asset or liability. Contrast with "market value."

"Cost-of-living adjustment" or "COLA": annual increase in the prior year's benefit amount, usually a percentage and based on national economic data, e.g., consumer price index; similar to "guaranteed annual benefit adjustment" or "GABA."

"Deferred compensation": an arrangement, subject to IRC conditions and requirements, in which a portion of an employee's income is paid out at a date after which that income is actually earned. The primary benefit of most deferred compensation is that any taxes due on the income are deferred until funds are withdrawn under the arrangement.

"Defined benefit retirement plan" or "defined benefit plan": a pension plan in which a retired employee is entitled to receive upon retirement a regular, periodic, specific amount based on the retiree's salary history and years of service.

"Defined contribution retirement plan" or "defined contribution plan": a retirement plan in which the employee is required to or elects to defer some amount of salary into an individual account over which the employee has limited control for investing the assets and limited options when making withdrawals at retirement.

"Direct rollover": a distribution from a qualified pension plan, 401(k) plan, 403(b) plan, etc., that is remitted directly to the trustee, custodian, or issuer of the receiving retirement plan or IRA and is reported to the IRS as a rollover.

"Early retirement": a retirement plan provision that allows an employee to retire before the normal retirement age.

"Early retirement benefit": the retirement benefit payable to a member following early retirement and is the actuarial equivalent of the accrued portion of the member's service retirement benefit.

"Employee Retirement Income Security Act" or "ERISA": the federal law enacted in 1974 that established legal guidelines for private pension plan administration and investment practices. Public retirement plans generally are not subject to ERISA.

"Government Accounting Standards Board" or "GASB": an independent, private-sector organization based in Norwalk, Connecticut, that establishes accounting and financial

reporting standards for U.S. state and local governments that follow generally accepted accounting principles.

"Guaranteed annual benefit adjustment" or "GABA": an annual increase in the prior year's benefit amount, usually as a percentage of benefit; similar to "cost-of-living adjustment" or "COLA."

"Inactive member": a member who terminates service and does not retire or take a refund of the member's accumulated contributions.

"Individual retirement account" or "IRA": a tax-deferred retirement account for an individual that permits the individual to set aside money each year, with earnings tax-deferred until withdrawals begin. Also see "Roth IRA."

"Internal Revenue Code" or "IRC": Title 26 of the United States Code. It is also known as the "federal tax code."

"IRA rollover": a tax-free reinvestment of a distribution from a qualified retirement plan into an IRA or other qualified plan within a specific time frame, usually 60 days.

"Lump sum distribution": a single distribution all at once, rather than as a series of payments over time.

"Market value": the price at which an asset is trading and could presumably be purchased or sold.

"Money purchase pension plan" or "money purchase plan": a defined contribution plan in which the amount of contributions made annually is in proportion to the employee's wages and is mandatory every year.

"Normal cost" or "future normal cost": an amount calculated under an actuarial cost method required to fund accruing benefits for members of a defined benefit retirement plan during any year in the future. Normal cost does not include any portion of the supplemental costs of a retirement plan.

"Normal retirement age": the age at which a member is eligible to immediately receive a retirement benefit based on the member's age, length of service, or both, as specified under the member's retirement system, without disability and without an actuarial or similar reduction in the benefit.

"Portability": the ability of an employee to retain benefits, such as in a pension plan or insurance coverage, when switching employers.

"Qualified retirement plan" or "qualified plan": a plan that meets the applicable requirements of the Internal Revenue Code and, if applicable, the Employee Retirement Income Security Act, and is thus eligible for favorable tax treatment.

"Roth IRA": a type of IRA, established under the Taxpayer Relief Act of 1997, that allows taxpayers, subject to certain income limits, to save for retirement while allowing the savings to grow tax-free. Taxes are paid on contributions, but withdrawals, subject to certain rules, are not taxed at all.

"Tax deferral" or "tax deferred": the payment of taxes in the future on income earned in the current period.

"Unfunded actuarial liabilities" or "unfunded liabilities": the excess of a defined benefit retirement plan's actuarial liabilities at any given point in time over the value of its cash and investments on that same date. Also known by the acronyms "UAAL" and "UAL."

"Vested account": an individual account within a defined contribution plan that is for the exclusive benefit of a member or the member's beneficiary. A vested account includes all contributions and the income on all contributions in the member's contribution account, the vested portion of the employer's contribution account, and the member's account for other contributions.

"Vested member" or "vested": a member or the status of a member who meets the minimum membership service requirement of the system or plan to which the member belongs.

APPENDIX C
LIST OF RETIREMENT-RELATED ACRONYMS

BOI: Montana Board of Investments or Board of Investments

DC: Defined contribution, as in defined contribution retirement plan

DB: Defined benefit, as in defined benefit retirement plan

ERISA: Employee Retirement Income Security Act of 1974, a federal law

FAC: Final average compensation

FAS: Final average salary

FURS: Firefighters' Unified Retirement System

GASB: Governmental Accounting Standards Board

GWPORS: Game Wardens' and Peace Officers' Retirement System

HAC: Highest average compensation

HAS: Highest average salary

HPORS: Highway Patrol Officers' Retirement System

IRA: Individual retirement account (rarely: individual retirement arrangement)

IRC: Internal Revenue Code

JRS: Judges' Retirement System

MPERA: Montana Public Employee Retirement Administration

MPORS: Municipal Police Officers' Retirement System

MUS-RP: Montana University System Retirement Program

OBPP: Office of Budget and Program Planning

ORP: Optional Retirement Program or (inaccurately) Optional Retirement Plan

PCR: Plan choice rate

PERS: Public Employees' Retirement System

PER Board: Public Employees' Retirement Board

SAVA: State Administration and Veterans' Affairs Interim Committee (2003-present)

SRS: Sheriffs' Retirement System

TRS: Teachers' Retirement System

TRS Board: Teachers' Retirement Board

UAAL: Unfunded actuarially accrued liability

UAL: Unfunded actuarial liability

VFCA: Volunteer Firefighters' Compensation Act pension trust fund

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