

Please note: The figures for FY2018 are shown in these talking points for illustration. They have been reviewed and approved by the state actuary and certified by the Board of the Teachers' Retirement System but have not yet been transmitted to the Governor or the leadership of the four legislative caucuses.

The Actuarial Equation

Contributions (C) + Investment Earnings (I) = Benefits Earned (B)

- Benefits Earned are subject to constitutional protections. See Appendix 1 for a brief summary of the relevant law.
- Investment earnings over the long term have exceeded actuarial assumptions on rate of return. Our most recent fiscal year results (net of all fees) are:
 - 5 year 6.8%
 - 10 year 5.4%
 - 20 year 7.2%
 - 30 year 8.2%
- Contributions come from:
 - Members at a statutory 9.0% each pay period
 - See Appendix 2 for the history of the member contribution rate
 - Local school districts vouchered monthly
 - Local funds at statutory 0.58% of payroll
 - Salaries paid by federal funds are subject to the same rate as the state
 - State of Illinois – pays the balance of the required contribution after deducting member and district contributions from the total cost

Full funding of 100% of the liability is the goal, not some lesser amount. This is the only way to ensure equity between generations of taxpayers. Any funding level less than 100% can still be seen as sound, and often is, so long as there is a demonstrated and credible history of steady progress towards full funding.

How the Contribution Should Be Calculated

Actuaries use a model that considers both economic and demographic factors to determine the total contribution required to fund pensions as they are earned by members.

Examples of economic factors:

- Inflation
- Rate of return, or interest rate for discounting liabilities

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- Salary increases
- Payroll growth

Examples of demographic factors:

- Mortality, i.e., how long members are expected to live
- Length of career, age at retirement
- Withdrawal

The model calculates two amounts:

- the normal cost, i.e., the cost of the pension that is earned with each year of service
- an amount that amortizes any previous unfunded liability

The total annual cost to fund pensions is the sum of these two items.

An unfunded liability arises when either:

- Prior contributions are not actuarially adequate, i.e., the funds contributed are not equal to the normal cost plus the amortization of any prior unfunded liability, or
- The economic and demographic factors actually experienced are different than what is assumed in the model. Differences can be both favorable and unfavorable.
 - This is normal and following standard actuarial practice minimizes the impact of these differences.
 - Most pensions are soundly funded, many at 90% or more. Those that are not well funded, typically are the result of underfunding, not investment shortfalls.
 - Don't be distracted by the outliers, e.g., Dallas Police & Fire

How the Contribution Is Calculated In Illinois

The general principles described above are the starting point for the contribution calculation for state funded systems in Illinois.

There are several requirements of Illinois law that reduce the contribution defined in statute to well below an actuarially calculated contribution. They are:

- A 90% funding target vs. a 100% funding target
- Using the projected unit credit method of calculating liabilities instead of the generally accepted entry age normal method, deferring costs to later years of a member's career.
- A 50 year amortization of unfunded liabilities vs. a 30 or 20 year period
- The annual contribution is reduced by the amount of debt service the state pays on pension related state debt, i.e., Pension Obligation Bonds

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- Reducing the current year's contribution by the savings that will be realized from hiring Tier II teachers in the future

In other words, just about everything possible that you could do to backload and reduce the current pension contribution is in statute. Kicking the can is the law of the land in Illinois. The problem will continue to grow for another 15 +/- years.

An important point to understand in the context of debating solutions to the funding shortfall is that roughly 65% of the liability that is on the books today relates to members who are already retired and collecting a benefit. Most of the remaining liability is for active members who are in the late stages of their career. In other words, there is little room for reducing the existing liability by legislation.

Current and next fiscal year impact is shown below and the history graphically in Appendix 3.

Fiscal Year	Statutory	Actuarial
2017	\$3.987 Billion	\$6.071 Billion
2018	\$4.565 Billion	\$6.876 Billion

Note: The composition of the FY 2018 contribution is both illuminating and sobering. Of the total \$4.565 billion, \$975 million is the normal cost. i.e., the cost of the pensions as they are being earned. The balance is required to pay down the prior decades of underfunding. In other words, had TRS been properly funded all along, and considering that our actuarial assumptions were reasonably close to actual experience, our required contribution would be some \$3.0 billion lower and those funds would be available for other budget priorities.

What Is the Current Funding Status of TRS?

In a given year, the actuarial equation should be in balance or close to it. By definition $C + I = B$ must balance over time.

Where are we now at TRS? The equation today is badly unbalanced:

$$C + I = B - \$71.4 \text{ Billion}$$

The unfunded pension liability at TRS is \$71,407,792,496. The funded ratio for the system is 39.8% on an actuarial basis, 38.1% on a market value basis.

We have less than \$0.50 on the dollar to pay benefits for retired members and \$0 (other than their contributions) accumulated for future benefits due to active members.

Sharing the Total Cost In Illinois

The normal cost, the cost of pensions being earned during a given fiscal year, is expressed as a percentage of total payroll across all employers, except Chicago.

- The normal cost is shared between the member and the employer, i.e., local districts and the state as described in the chart below
- This cost sharing should be evaluated in the context of the fact that members of TRS are not participating in Social Security
- All payrolls are assessed at the same rate, without regard to differing pay scales or capacity of the local district. In other words, a district with average salaries of \$60,000 receives twice the state pension subsidy per salary dollar than a district with an average salary of \$30,000.

Fiscal Year	2018	2017
Total Normal Cost as %	19.01	17.68
Member share as %	9.0	9.0
Employer share as %	10.10	8.68

The employer's total cost is also described as a percentage of the projected total payroll of all school districts in a given year.

- For Fiscal 2018, the total employer payroll is projected to be \$10.441 billion
- The employer's total cost is projected to be 45.19% of total payroll
- The employer's total cost is projected to be \$4.718 billion

This employer total cost for FY2018 is shared as follows:

Total Contribution Required	\$4.718 Billion
Less: District – Local Dollars @ 0.58%	\$60.560 Million
Less: District – Federal Dollars @44.61%	\$93.148 Million
State Contribution	\$4.564 Billion
Plus: Minimum Annuity Reserve	\$0.7 Million
Total State Contribution	\$4.565 Billion

Note: Salaries paid by Federal grant monies to local districts are assessed at the same rate as the state due to the General Assembly removing the authority to set the rate from the TRS board. The board historically had set the rate and in 2013 assessed the normal cost only. This had the effect of shifting some \$80 million in pension costs from the district grant funds to the state. Legislation requiring that the rates be the same quickly followed. The impact of this is to

divert grant money intended to serve Illinois' most needy students in the classroom to pay down the state's unfunded pension liability.

What Are Some of the Other Issues?

1. Cost shift from the state to the local districts
 - a. Impact on local property taxes, especially considering PTELL limits
 - b. Responsibility for unfunded liability
 - i. In prior discussions of a cost shift, any unfunded liability that accrues prior to a future cost shift has been seen as remaining with the state to pay down
 - ii. Any future unfunded liability that arose after a cost shift would presumably be the district's responsibility
 - c. Presumably if a cost shift were to be enacted, TRS would be granted the same powers as IMRF to require timely payment of the employer contribution from the school districts.
2. Tier II members currently overpay for their benefit
 - a. This acts as a subsidy of the state's obligation to pay down the Tier I unfunded liability.
 - i. A Tier II member's benefit costs roughly 7% and they pay the same 9% contribution as Tier I members
 - ii. Treated as separate member groups, Tier II pensions are 150% funded today and the Tier I pensions barely reach an 80% funded status
 - iii. The subsidy is estimated to be worth some \$20 billion over the next 30 years
 - b. Results in actuarial valuations that show a negative normal cost, an actuarial anomaly.
 - c. Inequitable and potentially a breach of fiduciary principles as one member group is enriched at the expense of another
 - d. It is in effect a tax that Tier II members pay that others don't

Appendices:

1. Summary of Pension Protection Clause cases
2. History of Member Contribution Rate
3. Funding Shortfall History

Illinois Court Decisions Interpreting the 1970 Illinois Constitution Pension Protection Clause

Peters v. City of Springfield, 311 N.E.2d 107 (Ill. 1974)

Facts: Three Springfield firefighters sued when the City lowered the mandatory retirement age from 63 to 60. Shaving off three years of “available work” reduced the maximum pension of the firefighters.

Discussion: The Supreme Court found that the intent of the pension protection clause was to insure that pension rights of public employees which had been earned should not be ‘diminished or impaired. However, the pension protection clause was not intended to prevent a city from reducing the maximum retirement age, even though the reduction might affect pensions. The change in the retirement age was not in the pension code.

Kraus v. Board of Trustees of the Police Pension Fund of the Village of Niles, 390 N.E.2d 1281 (Ill. 1979)

Facts: In the 1970s the law governing the calculation of pension for disabled police officers was changed to set a member’s total service time from the date of the disability, not at the end of the officer’s career. A retired officer sued, claiming the law change was unconstitutional.

Discussion: The Court of Appeals determined a police officer’s pension should be based on the law in place when the officer entered service. It was impermissible to change the terms of an employee’s pension after the person became a member of the system.

Felt v. Board of Trustees of the Judges Retirement System, 481 N.E.2d 698 (Ill. 1985)

Facts: This case addressed whether the General Assembly could reduce pension benefits for current pension system members. The judges system was sued when the General Assembly changed the salary base used in calculating initial pensions for judges.

Discussion: The Supreme Court determined that the change violated the pension protection clause for those in service prior to the effective date of the law change.

Buddell v. Board of Trustees, State University Retirement System of Illinois, 514 N.E.2d 184 (Ill. 1987)

Facts: An employee with military service joined SURS when the law allowed members to purchase prior military service. Five years later, the law was changed to place a one-year limit on the purchase of military service. Nine years after the purchase option expired, SURS told the employee he could not purchase military service.

Discussion: The Supreme Court determined that the law change was unconstitutional because there was no time limit on the service purchase option when the member entered SURS service. Unlike the *Peters* case, this benefit to purchase optional military service had been in the Pension Code.

People ex rel. Sklodowski v. State, 182 Ill.2d 220 (1997)

Facts: Six public pension members sued to compel the state to appropriate funds necessary to meet the statutory funding obligations of JRS, SURS, TRS and GARS. The systems’ trustees also were sued based on allegations they breached their fiduciary duty by failing to insure necessary funding levels.

Discussion: The Supreme Court determined there was neither a contractual or constitutional right for System members to sue in order to enforce statutory provided funding levels.

Kanerva v. Weems, 13 N.E.2d 1228 (Ill. 2014)

Facts: In 2012, the General Assembly altered how much the State would annually subsidize the cost of retired health insurance for SERS, SURS and TRS retirees. The case asserted that reducing the State subsidy was a diminishment/impairment of pension benefits.

Discussion: The Supreme Court concluded that health insurance subsidies are constitutionally protected by the pension protection clause, even though the subsidy is not in the Pension Code. The Court said that “health care benefits arise from and are conditioned on membership in a public retirement system, [and as such] they qualify as a benefit of membership in the retirement system...”

In re Pension Reform Litigation, 32 N.E.3d 1 (Ill. 2015)

Facts: Public Act 98-599 (known as Senate Bill 1) took effect in 2014 and significantly lowered benefits for all existing Tier I members of GRS, SURS, TRS and SERS.

Discussion: The Supreme Court concluded the unilateral benefit reductions in Senate Bill 1 were unconstitutional.

Matthews v. Chicago Transit Authority, 51 N.E.3d 753 (Ill. 2016)

Facts: A 2004 collectively bargained agreement with the Chicago Transit Authority (CTA) established a certain level of retiree health benefits. After the 2004 CBA expired, the retiree health benefits were modified through an arbitration award. The award was accepted by the CTA and unions representing transit workers.

Discussion: This case is important because it establishes when pension benefits can be modified through the collective bargaining process. For the CTA retirees who had health insurance before the CBA expired, their benefits could not be modified. For the CTA employees who had not yet retired, their benefits could be modified through the collective bargaining process.



TRS Member Contribution Rates *

Effective Dates of Contributions	Retirement	Survivor	Contributions for:		Total Member Contribution Rate	Reason for Increase (Decrease)
			Automatic Increases in Base Pension (AIBP)	ERO (% of pay while active, not lump sum at retirement)		
Service between 7/1/1939 & 6/30/1947	4.0%	-	-	-	4.0%	System established July 1, 1939
Service between 7/1/1947 & 6/30/1953	5.0%	-	-	-	5.0%	TRS article completely revised; many benefit changes
Service between 7/1/1953 & 6/30/1959	6.0%	-	-	-	6.0%	Maximum benefit increased from \$4,800 to \$6,000 annually; added minimum final average salary of \$2,400
Service between 7/1/1959 & 6/30/1969	6.0%	1.0%	-	-	7.0%	Survivor benefit program established
Service between 7/1/1969 & 6/30/1971	6.0%	1.0%	0.5%	-	7.5%	Automatic increases in benefits begin
Service between 7/1/1971 & 6/30/1998	6.5%	1.0%	0.5%	-	8.0%	Graduated formula begins (was 1.67% for all years); Final average salary period became 4 years instead of 5
Service between 7/1/1998 & 6/30/2005	7.5%	1.0%	0.5%	-	9.0%	2.2 formula begins
Service between 7/1/2005 & 06/30/2016	7.5%	1.0%	0.5%	0.4%	9.4%	New contribution under Modified ERO program; refunded without interest if member retires without ERO
Service between 7/1/2016 & now	7.5%	1.0%	0.5%	-	9.0%	ERO program ended on July 1, 2016; member ERO contribution ends

* Excludes active member contributions to the Teachers' Health Insurance Security (THIS) Fund that began July 1, 1995.

Actuarial Adequacy of Contributions to TRS, FY 1940-FY 2016

