AARP IN THE STATES

SNAPSHOT: Employees' Retirement System of Texas

The Employees' Retirement System of Texas (ERS) provides benefits to qualified employees of state agencies. Employees are not covered by Social Security.

The ERS Pension Works for Texas Stakeholders

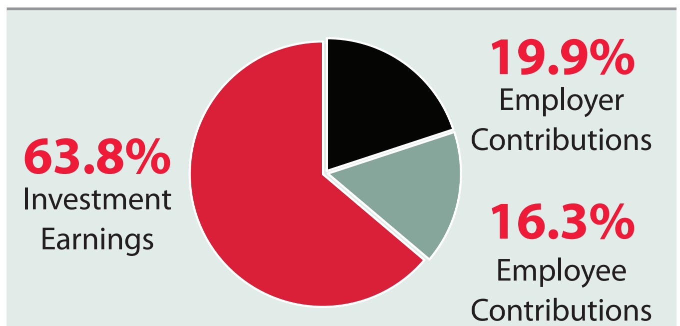
Defined benefit (DB) pensions help recruit and retain effective and experienced public employees, which is essential to delivering high quality service to citizens.

The spending by retired public employees from pension checks supports jobs, greater tax revenues and economic growth in our communities.

Pensions offer employees the best path to retirement security. They are cost-effective and provide modest lifetime income that will not run out.

Taxpayers Only Pay a Small Part of Pension Costs

The funding of public employee pensions is shared by employees and employers. New ERS employees contribute 9.5% of their pay into the fund. Over time, investment income earned by the fund does most of the work. In fact, between 1993 and 2014, taxpayers paid only 19.9% of the cost of benefits.



Pensions Cost Half as Much as a 401(k) Plan

Pensions can provide the same benefit as a 401(k) retirement account at about half the cost because of the following key factors:

10% cost savings from pooling longevity risk **+** **11%** cost savings from optimal asset allocation **+** **27%** cost savings due to higher returns and lower fees **=** **48%** **total cost savings**

AARP Real Possibilities | NRTA AARP's Educator Community | National Institute on Retirement Security — Reliable Research. Sensible Solutions.

ERS Key Facts

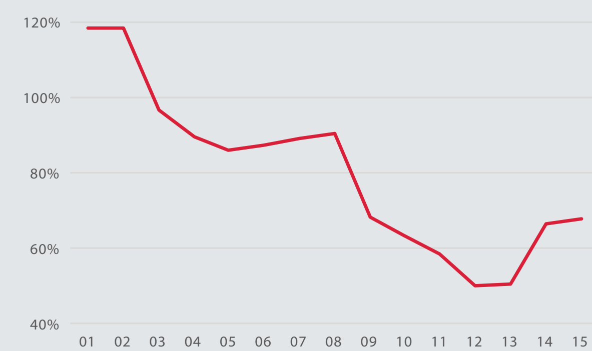
- Texas ERS serves 146,390 active employees and 103,758 retired members and survivor beneficiaries.
- New employees contribute 9.5% to ERS.
- Employers contribute 9.5% to the fund for employees.
- The average monthly retirement benefit for members is $1,728.
- After a 30-year career, ERS will replace 69% of final average salary.

Historical ERS Funding Experience

Texas established long-term funding policies to provide for the cost of public pension benefits. The employee contribution is set by law and the actuary calculates the employers' contributions each year. As of the end of its 2016 year, ERS had $26.6 billion in assets in the fund.

The Actuarially Determined Contribution (ADC) is the amount needed to fund benefits earned in the year and to pay down the plans' unfunded actuarial accrued liability. Paying the full ADC each year is important to ensure that the fund becomes financially sound over time.

Texas Paid 72.7% of Weighted Average Percent of ADC from FY2001-FY2015 for ERS



Texas Made Plan Changes to ERS in Recent Years

Following the global stock market crash in 2008-2009, Texas policymakers proactively made changes to ERS to ensure long-term sustainability. These included:

- For new employees in Groups 2 and 3, their ERS benefits are lowered due to expanding the calculation of average final salary and a reduction in early retirement benefits.
- Employee contributions increased up to 9.5% of salary and future contributions will increase with employer cost.

The Economic Impact of Texas Pensions:

$22 billion

in economic output generated by retirees' spending from public pensions in Texas.

142,126 jobs

paying $7 billion in wages supported by retirees spending from public pensions in Texas.

$3.5 billion

in federal, state, and local tax revenues generated by retiree benefits and spending in Texas.

All data come from Texas, Public Plans Data, or the National Institute on Retirement Security.

AARP IN THE STATES

BY THE NUMBERS: Employees' Retirement System of Texas

The **Employees' Retirement System of Texas (ERS)** provides a defined benefit (DB) pension for public employees. It offers a modest but stable monthly income over a retiree's life. DB pensions help to recruit and retain experienced employees to better serve taxpayers. DB pension payments also support the state's economy.

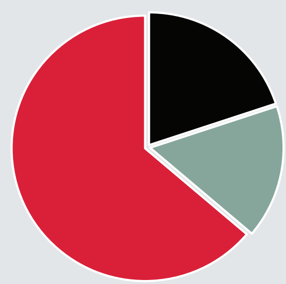
Key facts about the plan and its benefits:

146,390
Total active members of the Employees' Retirement System of Texas.

69%
After a 30-year career, ERS will replace 69% of an employee's pre-retirement income.

$1,728
Typical pension benefit paid to retired ERS members each month.

Pensions are a good deal for taxpayers:
Funding of public employee pensions is shared by employees and employers. New ERS employees contribute 9.5% of their pay into the fund. Over time, investment income earned by the fund does most of the work. In fact, between 1993 and 2014, taxpayers (employer contributions) paid only 19.9% of the cost of pension benefits.



The spending from the pension checks of the 103,758 retired public employees helps support:

$22 billion
in economic output in Texas.

142,126 jobs
paying those workers in Texas $7 billion in income.

$3.5 billion
in federal, state, and local tax revenues based on benefits and spending in Texas.

Pension benefits are a good deal for the economy too:

Each dollar "invested" by Texas taxpayers (employers) in these plans supported $8.08 in total economic activity in the state.

All data come from Texas, Public Plans Data, or the National Institute on Retirement Security.

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AARP IN THE STATES

SNAPSHOT: Teacher Retirement System of Texas

The Teacher Retirement System of Texas (TRS) provides benefits to qualified public education employees.

The TRS Pension Works for Texas Stakeholders

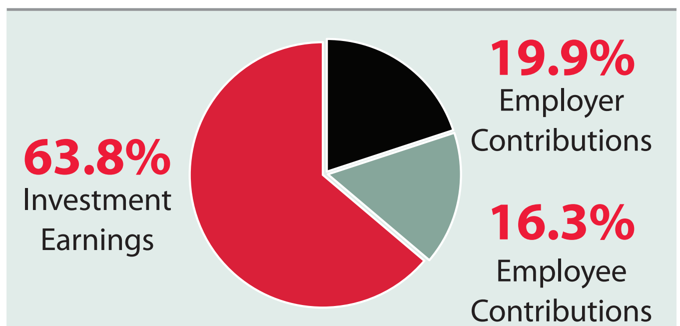
Effective teachers are the cornerstone of education quality, but teachers are underpaid. Pensions help schools keep teachers and compensate for low pay.

Retaining experienced midcareer teachers boosts student performance. Pensions help keep effective midcareer teachers in the classroom, increasing education quality.

Pensions offer teachers the best path to retirement security. They are cost-effective and provide modest lifetime income that will not run out.

Taxpayers Only Pay a Small Part of Pension Costs

The funding of public employee pensions is shared by employees and employers. TRS employees contribute 7.7% of their pay into the fund. Over time, investment income earned by the fund does most of the work. In fact, between 1993 and 2014, taxpayers paid only 19.9% of the cost of benefits.



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TRS Key Facts

Texas TRS serves 847,673 active employees and 393,914 retired members and survivor beneficiaries.

Employees contribute 7.7% to TRS.

Employers contribute 7.7% to the fund for employees.

The average monthly retirement benefit for members is $2,035.

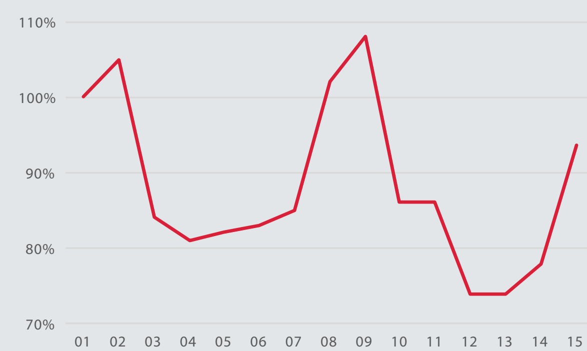
After a 32-year career, TRS will replace 68% of final average salary.

Historical TRS Funding Experience

Texas established long-term funding policies to provide for the cost of public pension benefits. The employee contribution is set by law and the actuary calculates the employers' contributions each year. As of the end of its 2016 year, TRS had $138.8 billion in assets in the fund.

The Actuarially Determined Contribution (ADC) is the amount needed to fund benefits earned in the year and to pay down the plans' unfunded actuarial accrued liability. Paying the full ADC each year is important to ensure that the fund becomes financially sound over time.

Texas Paid 86.6% of Weighted Average Percent of ADC from FY2001-FY2015 for TRS



Texas Made Plan Changes to TRS in Recent Years

Following the global stock market crash in 2008-2009, Texas policymakers proactively made changes to TRS to ensure long-term sustainability. These included:

- Employee contributions for current members increased to 7.7% of salary and new teachers must work longer to be eligible for normal retirement benefits.

The Economic Impact of Texas Pensions:

$22 billion

in economic output generated by retirees' spending from public pensions in Texas.

142,126 jobs

paying $7 billion in wages supported by retirees spending from public pensions in Texas.

$3.5 billion

in federal, state, and local tax revenues generated by retiree benefits and spending in Texas.

All data come from Texas, Public Plans Data, or the National Institute on Retirement Security.

AARP IN THE STATES

BY THE NUMBERS: Teacher Retirement System of Texas

The **Teacher Retirement System of Texas (TRS)** provides a defined benefit (DB) pension for teachers. It offers a modest but stable monthly income over a retiree's life. DB pensions help to recruit and retain experienced teachers, who provide quality education for our children. DB pension payments also support the state's economy.

Key facts about the plan and its benefits:

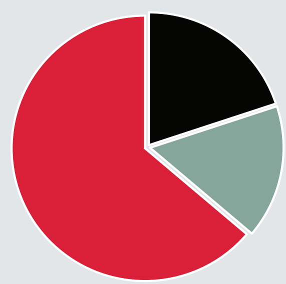
847,673
Total active members of the Teacher Retirement System of Texas.

69%
After a 32-year career, TRS will replace 68% of an employee's pre-retirement income.

$2,035
Typical pension benefit paid to retired TRS members each month.

Pensions are a good deal for taxpayers: Funding of teacher pensions is shared by employees and employers. TRS employees contribute 7.7% of their pay into the plan. Over time, investment income earned by the plan does most of the work. In fact, between 1993 and 2014, taxpayers (employer contributions) paid only 19.9% of the cost of pension benefits.

63.8% Investment Earnings



19.9% Employer Contributions

16.3% Employee Contributions

The spending from the pension checks of the 393,914 retired public employees helps support:

$22 billion
in economic output in Texas.

142,126 jobs
paying those workers in Texas $7 billion in income.

$3.5 billion
in federal, state, and local tax revenues based on benefits and spending in Texas.

Pension benefits are a good deal for the economy too:

Each dollar "invested" by Texas taxpayers (employers) in these plans supported $8.08 in total economic activity in the state.

$1.00 **$8.08**

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Why Pensions Work for Texas and Teachers

Pensions Help Deliver Quality Education in Texas

Defined benefit (DB) pensions play a fundamental role in retaining high-quality, experienced teachers in the classroom. These effective, experienced teachers are the most important school-based element that provides quality educational outcomes for our children.

A wide body of academic research on teacher productivity finds that teachers become more effective with experience. These studies demonstrate that experienced teachers have students who achieve at higher levels. In contrast, when experienced, mid-career teachers are replaced by inexperienced teachers, other studies show productivity drops across the school.

DB pensions give schools an effective tool to retain experienced teachers. These benefits provide teachers an incentive to continue delivering quality education to K-12 students.[1] This incentive becomes all the more important over a teaching career as the erosion of teachers' wages, when compared to the wages of similar college educated workers, widens for more experienced teachers.

There are important policy reasons to continue offering teachers DB pensions. Because pensions help attract and retain workers, Texas can keep teachers in the classrooms and empower students to achieve their highest potential.

Pensions Help to Bridge the Teacher Wage Gap

A national study of K-12 public school teachers' wages identified a 17 percent pay gap relative to comparable private sector workers in 2015. At the same time, teachers' benefits, including pensions, help bridge that gap and allow states to attract and retain highly qualified educators by reducing that overall gap in compensation to 11 percent. In Texas, teachers experience a 27% wage gap when compared to other college graduates in the workforce.[2]

17% teacher wage gap **offset by...** 6% teacher benefit advantage **reduces...** **the teacher compensation gap to 11%**

Americans understand that teacher pensions play an important role in retaining quality teachers and in offsetting the impact of their lower salaries.

92% 92 percent of Americans say pensions are a good way to recruit and retain qualified teachers.

81% 81 percent of Americans agree that teachers deserve pensions to compensate for lower pay.[3]

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Pensions Reduce Teacher Turnover and Save Money

Experienced teachers are better teachers. DB pensions help to retain highly productive teachers longer, as compared with individual defined contribution (DC) accounts. Moreover, the cost of teacher turnover is quite high, both in terms of financial cost and loss of productivity to the school district.[4]

7.3%

Percentage of teachers who leave education in Texas.

3,235

The number of teachers retained each year due to the DB pension.

$14.1B to $30.7B

The DB system savings in teacher turnover costs in school districts across Texas.

TRS Key Facts

- Texas TRS serves 847,673 active employees and 393,914 retired members and survivor beneficiaries.
- Employees contribute 7.7% to the fund.
- Employers contribute 7.7% to the fund.
- The average monthly retirement benefit for members is $2,035.
- TRS has $138.8 billion in actuarial value of assets and $35.5 billion in unfunded actuarial accrued liability.[5]

The Economic Impact of Texas Pensions

$22 billion

in economic output generated by retirees' spending from public pensions in Texas.

142,126 jobs

paying $7 billion supported by retirees spending from public pensions in Texas.

$3.5 billion

in federal, state, and local tax revenues generated by retiree benefits and spending in Texas.[6]

[1] Weller, C. 2017. "Win-Win: Pensions Effectively Serve American Schools and Teachers." Washington, DC. National Institute of Retirement Security (NIRS).
[2] Allegretto, S. A. and Mishel, L. 2016. "The Teacher Pay Gap Is Wider than Ever." Washington, DC. Economic Policy Institute.
[3] Oakley, D. and Kenneally, K. 2017, Pensions and Retirement Security 2017: A Roadmap for Policy Makers. Washington, DC. NIRS.
[4] Boivie, I. 2017. "Revisiting the Three Rs of Teacher Retirement Systems: Recruitment, Retention, and Retirement."
[5] All data, unless otherwise noted, as of fiscal year ended 2016.
[6] Brown, J. 2016. "Pensionomics 2016: Measuring the Economic Impact of DB Pension Expenditures." Washington, DC. NIRS.