Teacher Pensions – A Win, Win, Win for Students, Teachers and the Economy

REAM Meeting
St. Paul, MN
February 21, 2019
Diane Oakley, Executive Director
Agenda

- Good news on Teacher Pensions
- Pensionomics 2018 – Win for Economy
- Retention value of pensions – Win for teachers and students
- Bang for the Buck and *Win, Win*: pensions benefit all stakeholders
- Tools from NIRS – State Fact Sheets
- Favorable Views on Teachers’ Retirement
- Q&A
Women Who Worked in Education Have Highest Incomes among Households Age 65 and Older

Figure 12: Composition of average household income for women aged 65 and over, by industry, in 2013

J. Brown, *Shortchanged in Retirement*, NIRS
Pensionomics 2018: What We Found

• In 2016, expenditures from public and private pension benefits supported:

  – $1.2 trillion in economic output nationwide

  – 7.5 million jobs that paid $386.7 billion in income

  – $685 billion in value added nationally

  – $202.6 billion in federal, state, and local tax revenue
What We Found: Multiplier Effect

What is the total economic impact of each dollar paid out in pension benefits?

Pension Expenditure Multiplier

$1.00 pension benefits paid to retirees with DB pension income

$2.13 total output
What We Found: Taxpayer Investment

What is the “return” on each dollar taxpayers “invest” in state and local pension plans?

Taxpayer Investment Factor*

$1.00 contributed by taxpayers to state and local pensions over 30 years

$8.48 total output
Expenditures from MN Public Pension benefits supported…

- **Over $7.2 billion** in economic output in MN
- **Over 48.1 thousand jobs** that paid over **$2.4 billion** in income
- **Over $627 billion** in value added nationally
- **$1.5 billion** in federal, state, and local tax revenue

Each $1 that MN taxpayers pay into plans = **$9.83** in economic output.

Source: NIRS calculations using IMPLAN in *Pensionomics 2016*
Minnesota Retirement Systems Used *Pensionomics 2016* in Pension Reform
In Contrast to Minnesota – Kentucky TRS Pension Reform 2018

- GOP governor and legislature committed to move teachers from DB pension to DC 401(k) plan and to cut retired teachers’ COLAs.
- During legislative session, outside groups (LJAF and Pew) and “dark money” implemented an anti-pension campaign with the Chamber of Commerce as another player.
- In last hours of the session, SB 151 passed putting future teachers cash balance plan and eliminated the inviolable contract for teachers starting in 2019, future legislators to make more cuts.
- SB 151 did not have the required actuarial analysis at the time of the vote, as required for pension legislation. The bill would have shifted third of pension costs to local school districts, but did little to restore funding of legacy plan.
- On June 21, 2018, a Circuit Court judge struck down controversial pension reform law deeming it unconstitutional based on the Attorney General’s lawsuit.
While CalSTRS has four out of 10 new hires leave before vesting in any given year they represent less than 6 percent of the classroom teachers.

It is misleading to use young, new-hire turnover to represent the majority of teachers as a whole.
UC Berkeley: Are California Teachers Better Off with a Pension or a 401(k)?

• For six out of seven CA teachers, CalSTRS provides a greater retirement income compared to a 401(k) plan.

• CalSTRS DB benefit is greater than a generous cash balance plan at age 56, when 79% of active educators are still teaching.

<table>
<thead>
<tr>
<th>Study’s Key Findings Show Pensions Benefit a Long-Term Educator Workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three-quarters of classroom teaching in California is performed by long-term teachers</td>
</tr>
<tr>
<td>age at retirement with around 29 years of service</td>
</tr>
</tbody>
</table>

### Current Active Membership Age/Service Profile, FY 2017

<table>
<thead>
<tr>
<th>State Division</th>
<th>Median Entry Age</th>
<th>Median Age in 2017</th>
<th>Median Service in 2017</th>
<th>% with &lt;5 Years Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado PERA - State Division</td>
<td>36</td>
<td>46</td>
<td>6</td>
<td>29%</td>
</tr>
<tr>
<td>Colorado PERA - School Division</td>
<td>35</td>
<td>45</td>
<td>6</td>
<td>46%</td>
</tr>
<tr>
<td>Connecticut TRS</td>
<td>28</td>
<td>44</td>
<td>12</td>
<td>20%</td>
</tr>
<tr>
<td>Georgia TRS</td>
<td>31</td>
<td>45</td>
<td>10</td>
<td>31%</td>
</tr>
<tr>
<td>Kentucky TRS</td>
<td>28</td>
<td>42</td>
<td>8</td>
<td>36%</td>
</tr>
<tr>
<td>Missouri PSRS</td>
<td>27</td>
<td>41</td>
<td>10</td>
<td>25%</td>
</tr>
<tr>
<td>Texas TRS</td>
<td>28</td>
<td>41</td>
<td>10</td>
<td>27%</td>
</tr>
</tbody>
</table>

NOTE: Colorado PERA includes non-teachers.
Across the Six States Teacher Service Distributions Varied

NOTE: Colorado PERA includes non-teachers.
Teacher turnover and retention shaped by pension benefit policy

Annual Turnover Rates for Age 25 Hire Cohort

NOTE: Colorado PERA includes non-teachers.
65% of teachers will serve 20+ years
68% of teachers will serve until retirement eligibility

Distribution of Teachers by Vesting and Retirement Eligibility Status at Exit

- Vest, stay until retirement age
- Vest, leave before retirement age
- Won’t vest

<table>
<thead>
<tr>
<th>State</th>
<th>Vest, stay until retirement age</th>
<th>Vest, leave before retirement age</th>
<th>Won’t vest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado</td>
<td>48%</td>
<td>14%</td>
<td>20%</td>
</tr>
<tr>
<td>Connecticut</td>
<td>76%</td>
<td>9%</td>
<td>19%</td>
</tr>
<tr>
<td>Georgia</td>
<td>66%</td>
<td>15%</td>
<td>19%</td>
</tr>
<tr>
<td>Kentucky</td>
<td>69%</td>
<td>17%</td>
<td>14%</td>
</tr>
<tr>
<td>Missouri</td>
<td>79%</td>
<td>15%</td>
<td>5%</td>
</tr>
<tr>
<td>Texas</td>
<td>67%</td>
<td>27%</td>
<td>6%</td>
</tr>
<tr>
<td>6-State Average</td>
<td>68%</td>
<td>22%</td>
<td>10%</td>
</tr>
</tbody>
</table>
By early retirement, pension is worth significantly more than 401(k)

Ratio of Benefit Value to Salary at Earliest Retirement Age for Typical Teacher

Note: Calculations are based on estimated median entry age and service retirement provisions in each state.
81% of teachers better off with pension than 401(k) with typical individual investor
Bang for the Buck: 3 Reasons Why DB Is a Better Value Compared to DC

1. Pool the longevity risks.
2. Maintain optimally balanced investment portfolio compared to down-shifting to a lower risk/return asset allocation.
3. Higher investment returns and lower fees investors.
Still A Better Bang for the Buck: Compares 3 Plan Designs Providing $2,700 & DB Pension Costs Less

DB plan
- Typical asset allocation and fees.

Individually Directed DC plan
- Target Date Fund (TDF).
- Average fund fees, modest “behavioral drag.”

“Ideal” DC plan
- TDF with same glide path.
- Same DB fees, no behavioral drag
- No employee choice.

Contribution needed to fund DB plan is 16.3% of payroll.

Summary: DB Plan Delivers Same Benefit at About Half the Cost of DC Plan

Figure 1: Cost of DB & DC Plans as Percentage of Payroll

- DB Plan
- Ideal DC
- Individually Directed DC

- DB Cost
- 48% Savings
- 29% Savings
- 16.3% Savings
- Lower Returns/Higher Fees
- Less Balanced Portfolio
- No Longevity Pooling

Texas Teachers Retirement System
Benefit Design Study Added:

Comparison of Multiple Plan Designs

Simulations of DC plan probable outcomes for employees.

- Workers would have only a **50% chance** of reaching **60% of the benefit** provided by the DB plan, **at the same cost**.

# Colorado Pension Design Study

A Comprehensive Study Comparing the Cost and Effectiveness

## Office of the State Auditor

Considered Alternative Plan Designs Costs

**SAME BENEFIT for a 30-year Employee at 65**

## Comparison of Defined Benefit and Defined Contribution Side-by-Side Plan with PERA Hybrid Defined Benefit Plan

<table>
<thead>
<tr>
<th>Targeted Benefit Approach</th>
<th>PERA Hybrid Defined Benefit Plan</th>
<th>Defined Benefit and Defined Contribution Side-by-Side Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Division</td>
<td>0.82%</td>
<td>5.29%</td>
</tr>
</tbody>
</table>

**Employer Contribution**

| Member Contribution       | 8.00%                            | 9.03%                                                   |

**Relative Cost** (to replace the same age-65 benefits as under the PERA Hybrid Defined Benefit Plan)

- PERA Hybrid Defined Benefit Plan: 100%
- Defined Benefit and Defined Contribution Side-by-Side Plan: 160%

**REPLACEMENT RATIOS (set equal at age 65 with 30 years of service)**

<table>
<thead>
<tr>
<th>Age at Hire</th>
<th>Age at Termination</th>
<th>Years of Service</th>
<th>Benefit Commencement Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>65</td>
<td>30</td>
<td>65</td>
</tr>
<tr>
<td>35</td>
<td>62</td>
<td>27</td>
<td>62</td>
</tr>
<tr>
<td>35</td>
<td>60</td>
<td>25</td>
<td>60</td>
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<tr>
<td>40</td>
<td>60</td>
<td>20</td>
<td>65</td>
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<tr>
<td>25</td>
<td>45</td>
<td>20</td>
<td>65</td>
</tr>
<tr>
<td>40</td>
<td>50</td>
<td>10</td>
<td>65</td>
</tr>
<tr>
<td>40</td>
<td>43</td>
<td>3</td>
<td>65</td>
</tr>
</tbody>
</table>

**Source:** Colorado Office of the State Auditor and GRS

1. **Features of the Alternative Plan:** Defined benefit plan multiplier of 1.50% of final 3 years’ pay; the Employer contributes 5.29% of pay. Defined Contribution Plan: Members contribute 9.03% of pay, the Employer contributes 0% of pay, the fund earns 5.5% return each year; the account balance at age 65 is converted to a lifetime annuity based on 5.5% and the valuation mortality table.

2. **Contribution amounts are calculated as a percentage of employee salary.**
Win Win: Key Findings for Schools, Students and Teachers

1. DB plans help employers recruit and retain committed teachers. Schools benefit from teachers’ increasing effectiveness.

2. DB pensions better address obstacles to retirement income security and a majority of teachers have adequate benefits.

3. The public strongly supports DB pensions for teachers and acknowledges their retention effects.
Win, Win: DB Plans Give School An Effective Recruitment & Retention Tool

DB pensions create economic incentives for experience teachers to stay by deferring some compensation.

Figure 1: Annual wealth changes for teacher entering in 2017 relative to earnings, under DB pension and DC plan, constant normal cost

Notes: All figures are in percent of payroll. See appendix for descriptions of the calculations.
DB plans result in more predictable retirement ages for teachers, so schools can plan for turnover.

Figure 6: Retirement age by defined benefit pension coverage

Win, Win: DB Plans Also Provide Predictable Retirement

Win, Win: DB Pensions Overcome Obstacles Including Investment Risks

Figure 3: 20-year and 50-year stock market average real returns
DB pensions help provide teachers with a decent standard of living in retirement, and do so more effectively than a DC plan.

Figure 4: Wealth necessary for monthly inflation-adjusted retirement income of $1,000 when planning for average and maximum life expectancy.
Win, Win: DB Pensions Overcome Retirement Obstacles with More Equity

Figure 5: Inflation-adjusted retiree income at select percentiles from 2010 to 2013
Decisions, Decisions: Findings

- Overwhelmingly, public employees choose the DB pension as retirement plan, when offered a choice.
- Shift to DC does nothing to address underfunding of DB.
- When legislatures encouraged the DC plan, employees still choose the DB plan.
- DC plans are less cost efficient than DB plans.
Decisions Decisions: Most Employees Choose a DB Plan

Figure 3. Total DB Elections over Time
Decisions Decisions: States Encourage DC – Utah and Florida

» Utah’s public employees must choose either the DB/DC or DC only plan and Utah created open contribution liability for employees in DB/DC the plan. Still only 20 to 25% of employees select the DC-only plan.

» Florida ERS offered DB or DC choice since 2002 with about 25% choosing DC. Lowering DB benefits in 2008 move 5% more to DC but when DC benefits were lowered the choice switched back. Now moves its default to DC!

Education Leads The Top-Ten Industries Where Millennials Work

Source: Author's calculations using 2014 Survey of Income and Program and Participation SSA Supplement Data.
Millennials in Education Have High Access - Confused about Type of Plan

<table>
<thead>
<tr>
<th>Category</th>
<th>Access</th>
<th>Eligibility</th>
<th>Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>86.8%</td>
<td>58.5%</td>
<td>45.3%</td>
</tr>
<tr>
<td>Restaurants</td>
<td>46.6%</td>
<td>25.4%</td>
<td>11.4%</td>
</tr>
<tr>
<td>Retail</td>
<td>76.3%</td>
<td>37.1%</td>
<td>25.4%</td>
</tr>
<tr>
<td>Construction</td>
<td>38.3%</td>
<td>50.5%</td>
<td>19.3%</td>
</tr>
<tr>
<td>Health Care</td>
<td>91.8%</td>
<td>57.5%</td>
<td>52.1%</td>
</tr>
<tr>
<td>Computers</td>
<td>75.7%</td>
<td>55.9%</td>
<td>39.3%</td>
</tr>
<tr>
<td>Public Safety</td>
<td>95.4%</td>
<td>85.9%</td>
<td>75.0%</td>
</tr>
<tr>
<td>Finance</td>
<td>91.2%</td>
<td>75.3%</td>
<td>68.6%</td>
</tr>
<tr>
<td>Child Care</td>
<td>34.5%</td>
<td>48.2%</td>
<td>16.6%</td>
</tr>
<tr>
<td>Auto Repair</td>
<td>32.3%</td>
<td>24.1%</td>
<td>7.8%</td>
</tr>
</tbody>
</table>

SIPP self-reported data included type of plan: Just 16.3% indicated they had access to a DB plan.

Source: Author’s calculations using 2014 Survey of Income and Program and Participation SSA Supplement Data.
Tools: State Retirement System Fact Sheets Via Interactive Map

NOTE: Guam, Puerto Rico and the U.S. Virgin Islands are not included in this study.

https://www.nirsonline.org/resources/nirs-fact-sheets/
Snapshot Fact Sheet --
Teacher Retirement System

The Teacher Retirement System of Texas (TRS) provides benefits to qualified public education employees. Teachers do not participate in Social Security.

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.
- 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 employers and employees. New 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.

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

Total cost savings = 48%

How does the Teacher’s Retirement System help stakeholders?

Where does the money to fund the Retirement system come from?

How much does the DB pension plan save?
Snapshot Fact Sheet – Teacher Retirement System

Key Facts about TRS

Funding Experience
- How much money does the System have?
- History of Contributions to System

Summary of Pension Changes

State Pensionomics Data

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

- New employees contribute 7.7% to TRS.
- Employers contribute 7.7% to the fund for employees.
- The average monthly retirement benefit for members is $1,949.
- After a 30-year career, TRS will replace 69% 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 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.
Background Resource

Teacher Retirement System

- What is Actuarial Determined Contribution or ADC?
- How much of ADC paid each year?

Why Pensions Work for Taxpayers, Teachers

AARP IN THE STATES

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. This incentive becomes all the more important over a teaching career as the worker of teacher 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 2013. 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.

17% teacher wage gap
6% teacher benefit advantage
the teacher compensation gap to 11%

92% of Americans say pensions are a good way to recruit and retain qualified teachers.
81% of Americans agree that teachers deserve pensions to compensate for lower pay.

The teacher pay gap is wider than ever

Teachers’ pay continues to fall further behind pay of comparable workers

Report – By Sylvie A. Aligretto and Lawrence Mishel - August 9, 2016

By Christian E. Walker, Ph.D.
74% of Americans Support Pensions for Teachers.

Q:
To what extent do you agree or disagree with the following statement?

Public schoolteachers deserve pensions to compensate for lower pay.
83% of Americans See Public Pensions as a Recruitment Tool.

Q:

To what extent do you agree or disagree with the following statement?

Pensions are a good way to recruit and retain qualified teachers, police officers, and firefighters.
Conclusions

• Real threats for teacher pensions. More appear each day. New efforts to drive an unfairness wedge between young and experienced teachers. Need to educate new teachers about DB pension benefits.

• Critics of DB plan have funded research that pits younger and older teachers against one another with a push toward cash balance and DC retirement plans.

• You can find help on challenges on NIRS Website: www.nirsonline.org
Questions?

National Institute on Retirement Security
www.nirsonline.org