The Fading Value of Pension Benefits for Teachers in America

How the Value of Teacher Retirement Benefits Have Declined Over the Past Two Decades

JONATHAN MOODY AND ANTHONY RANDAZZO
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Findings and Insights</td>
<td>2</td>
</tr>
<tr>
<td>Executive Summary</td>
<td>3</td>
</tr>
<tr>
<td>Introduction: The Evolution of Teacher Pension Benefits</td>
<td>4</td>
</tr>
<tr>
<td>Part 1: Teacher Retirement Benefit Changes Since the Great Recession and Financial Crisis</td>
<td>5</td>
</tr>
<tr>
<td>Part 2: Dollar Values in Decline for Teacher Retirement Benefits</td>
<td>7</td>
</tr>
<tr>
<td>Part 3: The Specific Ways that Benefit Design Changes Reduce Teacher Retirement Income: Examples from Illinois and Texas</td>
<td>11</td>
</tr>
<tr>
<td>Part 4: Retirement Benefit Scores for Legacy Teacher Plans versus Open Teacher Plans</td>
<td>14</td>
</tr>
<tr>
<td>Part 5: Conclusion — The Costs of Teacher Pension Debt is Being Passed on to Future Generations</td>
<td>15</td>
</tr>
</tbody>
</table>

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**ABOUT THIS REPORT**

This report is one of three special reports expanding upon our summary report, "The National Landscape of Teacher Retirement Benefit Security," that evaluates adequacy and quality of the 78 retirement plan classes of benefits currently offered to new teachers, as well as 186 "legacy" plans for teachers. In some analyses we have also included data from 52 plans that are exclusively for non-instructional public school employees (27 currently open, 25 legacy). All four reports are part of our on-going Retirement Security Report (RSR) initiative, which is outlined on page 18. To read other special reports in this series, visit our RSR research hub.

The RSR analyzes the quality of every public sector retirement system and provides a Retirement Benefits Score for each retirement plan overall and broken down for plan members based on their duration of service.

- **SHORT-TERM WORKER (STW-TEACHER):** A teacher enrolled in a public retirement plan in the same state for 10 years of service or less.
- **MEDIUM-TERM WORKER (MTW-TEACHER):** A teacher enrolled in a public retirement plan in the same state for 10 to 20 years of service.
- **FULL CAREER WORKER (FCW-TEACHER):** A teacher enrolled in the same public retirement plan in the same state for their entire career.

Plans that earn 75% or more of available Retirement Benefits Score points are considered to be “serving members well,” those scoring between 50% and 75% of available points are serving members “moderately well,” and those plans scoring less than 50% of available points are “not serving members well.”

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**ABOUT EQUABLE INSTITUTE**

Equable Institute is a bipartisan nonprofit that works with public retirement system stakeholders to solve complex pension funding challenges with data-driven solutions.

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**ACKNOWLEDGMENTS**

This report is modeled on the first edition of “The National Landscape of Public Employee Retirement Benefits” (2021) and it reflects all of the research support, modeling work, data collection, and peer review that went into that paper. Some portions of this paper are taken from the original paper about all public workers when the underlying information is the same for teachers.
01 Since the Great Recession, 45 state retirement systems have introduced a new tier or class of benefits, usually by reducing the value of pension benefits offered to new members. **This has led to a 13% drop in the lifetime value of pension income for new teachers, equal to a $100,000 decline in what teachers today can expect from their future retirement income compared to what their veteran peers will get.**

- Teachers who started in the classroom in 2005 can expect that the average lifetime value of their pension will be around $768,000 when they reach normal retirement. However, teachers hired during the 2022-23 school year and enrolled in a pension plan are only going to earn a pension worth $668,000 of lifetime benefits by the time they reach normal retirement age.

02 **Pension plans are severely underperforming for teachers with 10 to 20 years in the classroom:** Once educators reach 20 years of service only 6 out of 219 teacher pension plans are providing sufficient benefits to put their members on a path to retirement income security. That’s only 2.7% of pension plans serving teachers well, even though these teachers are serving for up to two decades in classrooms.

03 **All types of teacher retirement plans are working for Full Career Workers.** It is no surprise that pension plans tend to work well for those who put in a full career, but it may be surprising to some that DC plans and hybrid plans are performing just as well, or even better in some cases. Key features of these successful DC and hybrid plans include relatively high contribution rates (i.e., 14% or higher) and a withdrawal provision that allows teachers to get these contributions out of the plan (i.e., immediate vesting or short vesting periods) with interest (i.e., 4.5% or higher crediting interest rate) when they leave their job.

04 **Two retirement plans serve all teachers well, regardless of Short-Term, Medium-Term, or Full Career:** South Carolina Retirement System’s “Optional Retirement Plan” (a defined contribution plan) and Tennessee Consolidated Retirement System’s “Hybrid Plan.” South Carolina’s system scores well because of its high contribution rate (14%) and quick vesting period. Tennessee’s plan does well because the 7% contributions into the DC portion of the plan, combined with a 5% crediting interest rate on members’ contributions to the pension allow it to perform especially well for Short-Term and Medium-Term Workers.
Executive Summary

Teacher retirement systems set up by states and cities across America were mostly started between 1930 and 1965, with a select few founded at the turn of the 20th century. Over the past few decades, dozens of new classes and tiers of benefits have been created, and in some cases entirely new retirement systems have been established. During periods where legislatures felt financially strong, benefit enhancement would be given out. In moments of fiscal stress, lawmakers and boards of trustees have modified benefits (within the legal parameters of the state). The result is that the value of teacher retirement benefits has varied over time considerably.

Unfortunately, the recent trend has been for the value of retirement benefits to be reduced, which is shown in the figure below. Using data on retirement plans going back at least 65 years, we have been able to measure the value of teacher retirement benefits over time. During the last few decades of the 20th century, there was a relatively steady upward climb in the value of teacher pension benefits. At the peak in 2005, a new teacher entering the workforce could expect that the lifetime value of their pension at age 65 would be $768,000, on average. Today, a teacher starting during the 2022–23 school year should expect the average lifetime value of their pension benefits will be around $668,000 when they reach 65.

This 13% decline in less than 20 years is not only a sharp reduction in the quality of teacher benefits, but it also means that the value of teacher pension plans being offered to new educators is at its lowest point in modern history. (This does not mean that teachers who have been in the classroom for decades are going to get lower pensions. Benefits are not being reduced for active members. Rather, this data reflects the decline in value of benefits being offered to new cohorts of educators.)

The primary driver of this phenomenon is state legislatures creating less expensive tiers of pension benefits that are only applicable to new teachers. As unfunded pension liabilities have driven up costs, states have sought to reduce some of their expenses by cutting the value of pension benefits on a prospective basis. Effectively this means that states have been shifting the costs of legacy pension plans onto the teachers of tomorrow. These educators are going to get substantially less in retirement benefits for the same level of service in the classroom.

FIGURE ES: AVERAGE LIFETIME VALUE OF TEACHER PENSION BENEFITS, 1965 TO 2023

Note: Dollar figures shown are average net present value of benefits for a teacher who starts at age 25 and works until the pension plan’s normal retirement age, and inflation adjusted to 2021-dollars.
Introduction: The Evolution of Teacher Pension Benefits

Teacher retirement systems set up by states and cities across America were mostly started between 1930 and 1965, with a select few founded at the turn of the 20th century. Over the past few decades, dozens of new classes and tiers of benefits have been created, and in some cases entirely new retirement systems have been established. During periods where legislatures felt financially strong, benefit enhancement would be given out. In moments of fiscal stress, lawmakers and boards of trustees have modified benefits (within the legal parameters of the state). The result is that the value of teacher retirement benefits has varied over time considerably.

Unfortunately, the recent trend has been for the value of retirement benefits to be reduced.

This special report compares the value of retirement benefits for teacher veterans and the benefits offered to new teachers. We look at the quality of benefits in open teacher retirement plans (those that enroll new members as they are hired) and legacy teacher retirement plans (those that are not accepting new members for the specific tier or class of benefits).

Part 1 documents the primary changes to teacher retirement plans since the Great Recession, including dozens of changes to tiers of pension benefits and a few significant overhauls of state teacher retirement systems that created options.

Part 2 shows the evolution of the dollar value of teacher retirement benefits from 1965 up through the present day.

Part 3 lays out some specific ways that Illinois and Texas have changed their benefit design rules as examples of how such adjustments to provisions can reduce retirement income for new teachers compared to veterans.

Part 4 provides a table with Retirement Benefit Scores for legacy teacher plans versus open teacher plans.

Finally, Part 5 offers a concluding thought on how the costs of teacher pension debt is being passed on to future generations.
Part 1: Teacher Retirement Benefit Changes Since the Great Recession and Financial Crisis

The most profound set of benefit design changes has come in the years since the Financial Crisis (2007-09) and Great Recession (2008-09). As a way to reduce the costs of benefits and manage risks, most state legislatures made some kind of change to retirement benefits. After the financial crisis, a number of states made meaningful changes to the benefit design of their teacher retirement systems. Between July 1, 2009, and February 29, 2020, legislatures authorized the following changes to statewide and municipal teacher and public school employee retirement benefits:

- Forty-five retirement systems added a new tier of pension benefits (78 were created), usually increasing the retirement eligibility age and/or changing cost-of-living adjustment rules, and typically making a change to benefit multipliers, vesting periods, or what kind of wages could be included in a measurement of final average salary.

- Four retirement systems closed their pension plan and replaced it with a hybrid plan:
  - **Rhode Island** ERS converted its pension plan members into hybrid plan members in 2011. This is the only example in modern history where active members of a pension plan were converted into hybrid plan members.
  - **South Dakota** SDRS replaced its “Foundational” pension plan in 2018 with a “Generational Plan” that is primarily a pension benefit but with a kind of defined contribution account that only employers contribute to which is used to enhance pension benefits upon retirement.\(^1\)
  - **Tennessee** TCRS replaced seven classes of the TN TLPP Teacher Pension with its TRP Hybrid.
  - **Virginia** replaced its VRS Teachers Pension with the VRS Teachers Hybrid in 2014.

- Three retirement systems closed their pension plan and replaced it with a choice of retirement plans including hybrids and defined contribution plans:
  - **Michigan** PERS replaced two pension plans with a hybrid plan in 2010 (MPSERS Pension Plus).\(^2\) The state also started offering an optional defined contribution (DC) plan for teachers in 2012 and updated the provisions of its hybrid plan in 2018 (MPSERS Pension Plus 2).
  - **Pennsylvania** PSERS replaced two pension plans with two hybrid plans (PSERS Class T-G Hybrid and PSERS Class T-H Hybrid) in 2017.\(^3\) Teachers have a choice between those two plans and a DC plan (PSERS DC).
  - **Utah** URS replaced two pension plans with a hybrid plan in 2011 (UT Teacher Tier 2 Hybrid).\(^4\) Teachers have the choice between that hybrid and a DC plan (UT Teacher Tier 2 DC).\(^5\)

- One retirement system added the option defined contribution plan while continuing to offer a pension plan of some kind (whether or not a new tier of pension benefits was also offered): the **South Carolina Retirement System** launched SC RS Teachers ORP and SC RS Teachers Pension Class 3 in 2013.

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1. There were three classes of SDRS Teachers Class A that were replaced by the SDRS Teachers Generational Plan.
2. The pension plans closed to new members were MPSERS Pension Teachers MIP 7% and MPSERS Pension Teachers MIP Plus.
3. The pension plans closed to new members were PPSERS Class T-F Pension and PPSERS Class T-E Pension.
4. The pension plans closed to new members were URS Teacher Contributory Pre-2011 and URS Teacher Noncontributory Pre-2011.
5. Disclosure: A member of Equable’s board was the primary author of the legislation making these changes while serving in the Utah State Senate.
Seven states made no changes to their classes and/or tiers of teacher benefits:

- **Alaska**  
  AK TRS – created a DC plan for all new members in 2006.

- **Arkansas**  
  AR TRS – no changes for teachers or non-instructional staff back to the plan’s inception in 1937.

- **Georgia**  
  GA TRS – no changes back to the plan’s inception in 1944.

- **Maine**  
  ME PERS Teachers – the most recently created tiers date back to 2007 and 2008.

- **Minnesota**  
  MN TRA – no changes since 1990.
  MN St. Paul TRS – no changes since 1990.

- **Washington D.C.**  
  DC TRP – no changes since 1996.

- **Washington State**  
  WA SERS – introduced the Plan 3 Hybrid in 2001 as a choice alongside the Plan 2 Pension.
  WA TRS – introduced the Plan 3 Hybrid in 1997 as a choice alongside the Plan 2 Pension.

*As of 2020, the default plan is now Plan 2 instead of Plan 3 for both SERS and TRS.*

### 1.1 CHANGES SINCE THE PANDEMIC

Since the pandemic started there have been few substantive changes to teacher retirement benefits. A few changes adopted during the 2019 legislative sessions came into effect in 2020 or 2021 (such as changes to options in Indiana or contribution rates for members in Colorado). But the only major structural change to teacher retirement plan provisions was in Kentucky.

In 2021, the Kentucky legislature closed a now legacy pension plan (KY TRS Pension K–12) and replaced it with a hybrid that combines elements of a pension and guaranteed return plan (KY TRS Hybrid K–12). It is not completely clear how much the pandemic might have influenced this legislation, though it is unlikely that was a significant factor since the legislature had previously taken up changes to retirement benefits in 2018, which were subsequently invalidated by a state court, and it is more likely that the 2021 legislation was just a return to pre-pandemic political priorities.

### 1.2 UNDERSTANDING THE SCOPE OF PENSION TIER CHANGES

While the substantive overhaul of retirement systems in states like Michigan, Pennsylvania, and Utah are notable as examples to be studied for how well they’ve changed benefits for teachers, the most systematic set of changes were much quieter, mainly the addition of new benefit tiers.

Most states chose to continue offering only pension benefits and to reduce costs by creating new, less valuable tiers of pension benefits. This is usually easily seen just by looking at the plan names — Alabama TRS Tier 1 and Tier 2, Illinois TRS Tier 1 and Tier 2, Texas TRS Tier 4 and Tier 6. But it is also evident in pension plan sets of benefit provisions that outline different rules based on hire date, such as longer normal retirement rules for those hired on July 1 or later of a given year.

We explore the effect these changes have had on the dollar value of pension benefits for new teachers in Part 2 below. In Part 3 we provide concrete examples of how these lower benefit tiers have affected the quality of teacher retirements in Illinois and Texas.
Part 2: Dollar Values in Decline for Teacher Retirement Benefits

The Chicago Teacher Pension Fund was established in 1895, St. Paul Teachers Retirement Fund in 1909, and New York City Teachers Retirement System in 1917. Following these and other early adopters, most states set up their K–12 teacher retirement systems during the first half of the 20th Century. By 1965 there were 53 classes or tiers of retirement benefits. After this point, the number of new retirement plans being created slowed down, primarily because no additional states would join the union and most municipalities had already created the retirement systems they needed. In the roughly six decades since then dozens of new classes of benefits have been added, with many others closed, or combined with others.

Using the data on these retirement plans, we have been able to measure the value of teacher retirement benefits over time.

For this analysis, we looked at each year going back to 1965 and counted the pension plans available to new hires in that year. For each subsequent year going forward, any time a state created a new tier or class of pension benefits, we added that to the count; and whenever a tier or class of benefits stopped adding new members, we dropped it from the count. For each retirement plan, class, or tier we estimated the “net present value of benefits” (inflation adjusted to 2021-dollars) for teachers who will serve a full career. Put another way, we are measuring the dollar-based value of lifetime retirement income a teacher is expected to receive. Finally, for every year we averaged the value of those benefits across all of the open retirement plans.

To be clear, the value of retirement benefits reported for any given year is not the benefits that are being paid out in that year. It is the value of benefits that a new teacher joining a retirement plan in that year could expect to earn, on average, when they reach normal retirement. The dollar number shown for each year in Figures 1 to Figure 3 below are the expected lifetime value of benefits that will be paid out decades in the future (again, all inflation adjusted to 2021-dollars). All dollar figures reported are inflation adjusted to 2021 dollars.

2.1 THE EVOLUTION OF TEACHER PENSION BENEFIT VALUES

In the years following the Great Recession state legislatures started creating less expensive tiers of pension benefits that are only applicable to new teachers. Between 2009 and the start of 2020, 45 statewide retirement systems introduced new tiers of teacher benefits, most of which were less valuable and lower cost than legacy plans. For example, in Illinois, teachers hired before December 31, 2010 can expect to earn a pension benefit that is roughly twice is valuable as those hired on January 1, 2011 or later — in response to exploding costs of providing legacy teacher benefits, the state legislature felt it needed to shift some of those costs on to future educators.

The effect of the new tiers of pension benefits introduced over the past two decades is the erosion of their value to the lowest point in modern history.

Figure 1 (next page) shows how between 1965 and 2005 there was a relatively steady upward march in the value of benefits offered to new members. In 1965 an average new teacher could expect that by the time they reached normal retirement around the year 2005, the lifetime value of their pension benefits would be worth just under $720,000. By 1995, the same average new teacher could expect that pension benefits would have a lifetime value of closer to $730,000. And at the peak, in 2005, a new teacher enrolling in a pension plan would expect that when they reach normal retirement around 2045 that their pension will be worth close to $768,000 over the rest of their lifetime. The primary factors driving these values up were increased benefit multipliers and post-retirement benefit adjustments such as additional COLAs.

Since the peak in 2005 there has been a rapid decline. In the less than twenty years since 2005, the pension benefit values have declined by 13% on average. Today, a teacher starting during the 2022–23 school year should expect the average lifetime value of their pension benefits will be around $668,000 when they reach normal retirement age.

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6 The reason we see such a spike in the number of plans in the 1970s was not a function of new pension systems being created. Rather, it reflects the increased number of different benefit tiers both being offered and for which data are readily available.
FIGURE 1: AVERAGE LIFETIME VALUE OF TEACHER PENSION BENEFITS FOR NEW HIRES, 1965 TO 2023

Note: Dollar figures shown are average net present value of benefits for a teacher who starts at age 25 and works until the pension plan’s normal retirement age, and inflation adjusted to 2021-dollars.

TABLE 1: DIFFERENT COMPENSATION FOR THE SAME WORK — COMPARING THE EXPECTED LIFETIME VALUE OF BENEFITS FOR A NEW TEACHER BASED ON THE YEAR THAT THEY STARTED SERVING IN THE CLASSROOM

<table>
<thead>
<tr>
<th>STARTING YEAR FOR TEACHING</th>
<th>1992-93</th>
<th>2002-03</th>
<th>2012-13</th>
<th>2022-23</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIMEFRAME THAT THE TEACHER EXPECTS TO RETIRE, ON AVERAGE</td>
<td>2028 to 2033</td>
<td>2038 to 2043</td>
<td>2048 to 2053</td>
<td>2058 to 2063</td>
</tr>
<tr>
<td>EXPECTED LIFETIME VALUE OF PENSION BENEFITS DURING RETIREMENT</td>
<td>$740,000</td>
<td>$755,000</td>
<td>$710,000</td>
<td>$668,000</td>
</tr>
<tr>
<td>COMMENTS</td>
<td>Lifetime pension values have slightly increased after a wave of benefit enhancements during the 1990s and early 2000s</td>
<td>Lifetime pension values have sharply declined in the years immediately following the Great Recession</td>
<td>Lifetime pension values have continued to fall for new teachers, now $100,000 less than at the peak of benefit values</td>
<td></td>
</tr>
</tbody>
</table>
Table 1 above shows another way of breaking down and understanding this data. The results are unambiguous: it was better to start teaching in 2003 than 1993 (unless benefits were retroactively increased), and worse to start teaching in 2013, and much worse to start teaching in 2023. Educators starting next year and enrolled in a pension are, on average, going to earn $87,000 less in compensation (e.g., lifetime pension benefits) for their career of service compared to a teacher that started in 2003.

2.2 THE EVOLUTION OF TEACHER HYBRID BENEFIT VALUES

Fortunately, while teacher pension benefits have largely been declining in value, some states have found ways to introduce alternative plan designs that offer a path to adequate retirement income security. Among the top five states offering teacher retirement benefits are those offering a choice between a defined contribution plan or pension plan (South Carolina, Michigan), those offering robustly valued hybrid plans (Oregon, Hawaii, Tennessee), and South Dakota — which offers what is basically a pension plan that has a variable cost-of-living adjustment for retirees, but also with a side account funded by state employers that helps enhance the pension benefit at retirement, making it a kind of hybrid plan.

But not all hybrid plans are an improvement on pension benefits. There are many legacy pension plans with better values than hybrid plans, and some of the recently designed hybrid plans have particularly poor designs — such as the new hybrid retirement plan for teachers in Kentucky, which has some of the lowest Retirement Benefits Scores in the country (see the special report “The Best U.S. States for New Teacher Retirement Benefits” for more details).

Since the Great Recession the average value of hybrid plans has also declined. Figure 2 shows the average annual lifetime income value of hybrid plans going back to 1997, which is when some of the first hybrid classes of benefits were coming online. Because there are relatively fewer hybrid classes of benefits available, one or two new plans can significantly adjust the average. While the hybrid plans introduced within the past two decades are often higher quality than the new tiers of pension benefits, that doesn’t mean the net value provided hasn’t also declined along a similar overall trajectory.

FIGURE 2: AVERAGE LIFETIME VALUE OF TEACHER HYBRID PLAN BENEFITS FOR NEW HIRES, 1965 TO 2023

Note: Dollar figures shown are average net present value of benefits for a teacher who starts at age 25 and works until the pension plan’s normal retirement age, and inflation adjusted to 2021-dollars.
2.3 THE EVOLUTION OF TEACHER BENEFIT VALUES OVERALL

When we include all teacher retirement plan classes of benefits — including pensions, hybrids, defined contribution, and guaranteed return plans — and look at the timeline of teacher benefit values, the overall picture is a bit choppier but has a relatively similar pattern to what we’ve seen more narrowly with pensions and hybrid above when looked at alone.

Figure 3 shows the average lifetime benefit of teacher retirement plans overall for each year going back to 1965, and there is an upward march, in fits and starts, between 1965-87 and 2005-07. The primary reason for some of the large swings in certain years is the introduction of a relatively large number of classes of benefits during that year — having either a positive or negative effect. Benefit values were declining during Stagflation at the end of the 1970s, surged during the 1980s, had a slight reset in the early 1990s, and then shot up at the end of the 1990s and into the 2000s. But since the Financial Crisis and Great Recession, teacher retirement benefit values have steadily eroded year-after-year with only a minor pause when a few well-designed defined contribution and hybrid plans were introduced in states like Michigan, Pennsylvania, and South Dakota.

**FIGURE 3: AVERAGE LIFETIME VALUE OF ALL TEACHER RETIREMENT BENEFITS FOR NEW HIRES, 1965 TO 2023**

*Note: Dollar figures shown are average net present value of benefits for a teacher who starts at age 25 and works until the pension plan’s normal retirement age, and inflation adjusted to 2021-dollars.*
Part 3: The Specific Ways that Benefit Design Changes Reduce Teacher Retirement Income: Examples from Illinois and Texas

A common way that states reduced the value of retirement benefits for teachers was by changing rules related to cost-of-living adjustments for active workers and retirees (which many state courts have found are not protected under usual legal restrictions against changing retirement benefits) or by setting up new rules for new hires. These new rules often have longer vesting periods and later normal retirement eligibility ages, both of which reduce the value of benefits.

Illinois and Texas provide helpful examples. In each case the legislatures made changes at different points in time to adjust the provisions of teacher pension plans without changing the benefit multiplier.

3.1 EXAMPLE: ILLINOIS

In Illinois there have been two substantive changes to teacher retirement benefits that applied to new members joining either the Illinois Teachers Retirement System (TRS) or Chicago Teachers Pension Fund. Table 2 below shows a summary of key changes and how those adjusted the plans’ Retirement Benefits Scores. Increases in scores are marked in green; decreases in scores are marked in red.

<table>
<thead>
<tr>
<th>Benefit Tier</th>
<th>Applicable Dates</th>
<th>Summary of Key Changes to Benefit Provisions</th>
<th>Overall Benefits Score</th>
<th>STW-Teachers</th>
<th>MTW-Teachers</th>
<th>FCW-Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL TRS Tier 1 Pre-1998 Formula</td>
<td>1939 to 6/30/1998</td>
<td>Initial plan offered with 5-year vesting period; normal retirement at 62 with 5 YOS or 60 with 10 YOS; 4-year FAS calculation; graduated multiplier increasing from 1.67% to 2.3% based on YOS; 3% fixed compounding COLA</td>
<td>60.6%</td>
<td>41.6%</td>
<td>58.1%</td>
<td>82.0%</td>
</tr>
<tr>
<td>IL TRS Tier 1</td>
<td>7/1/1998 to 12/30/2010</td>
<td>Multiplier simplified to 2.2% for all service; Tier 1 members have the option of retiring under whichever formula has best benefit</td>
<td>65.4%</td>
<td>42.5%</td>
<td>61.8%</td>
<td>91.9%</td>
</tr>
<tr>
<td>IL TRS Tier 2</td>
<td>1/1/2011 to Current</td>
<td>Vesting period increased to 10 years; normal retirement age increased to age 67; FAS calculation doubled to 8 years; COLA provisions cut in half; cap on pensionable compensation</td>
<td>43.8%</td>
<td>8.7%</td>
<td>27.5%</td>
<td>95.2%</td>
</tr>
<tr>
<td>Chicago Tier 1</td>
<td>1895 to 6/30/2011</td>
<td>Initial plan offered with 5-year vesting; normal retirement age at 55 with 33 YOS, 60 with 20 YOS, or 62 with 5 YOS; 4-year FAS calculation; 2.2% multiplier; 3% fixed compounding COLA</td>
<td>50.3%</td>
<td>19.6%</td>
<td>39.5%</td>
<td>91.9%</td>
</tr>
<tr>
<td>Chicago Tier 2</td>
<td>7/1/2011 to Current</td>
<td>Vesting period increased to 10 years; normal retirement age increased to age 67; COLA provisions cut in half; cap created on pensionable compensation</td>
<td>49.7%</td>
<td>16.8%</td>
<td>37.2%</td>
<td>95.0%</td>
</tr>
</tbody>
</table>
It is noteworthy that the 1998 changes to Tier 1 benefits for Illinois TRS increased the quality of benefits for all worker profiles. Meanwhile, the introduction of Tier 2 benefits has been a near universal slashing of benefit values for new teachers in downstate Illinois and Chicago. This is particularly true for STW-Teachers enrolled in Illinois TRS Tier 2 relative to Tier 1. The Tier 2 benefits in Chicago are very poor, but in practice were already not particularly good for Tier 1 in the first place.

FCW-Teachers across Illinois do have slightly better scores for Tier 2 compared to Tier 1. However, this is specifically due to Tier 2 teachers being unable to retire until age 67, whereas under Tier 1 members can leave as early as age 55. Our methodology assumes full career workers will stay until normal retirement, which means Tier 2 teachers are accumulating five more years of service and generating a substantial pension. This pension is comparable with Tier 1, and may be slightly better.

However, in practice because Tier 2 requires teachers to work five to eight years longer to earn a comparable benefit, there are qualitative reasons why Illinois teachers may not see these benefit values as equal. Further, Tier 2 only holds its benefit value if inflation is relatively stable and low (which is also something that Illinois TRS assumes). What is not as obvious in the scores above is that Tier 2 benefits are much less likely to keep up with inflation than Tier 1.

### 3.2 EXAMPLE: TEXAS

In Texas, there have been six substantive changes to teacher retirement benefits over the past few decades. Some benefit enhancements were retroactive, while most other changes created new tiers of benefits for future workers. Figure 4 below shows a projection of the replacement rate that teachers accumulate over their career in Texas classrooms, assuming they were hired at age 25. The chart measures the net present value of annual pension checks, and offers a comparison against the value that would be needed to reach a 70% replacement rate of pre-retirement income (our benchmark for a secure retirement income).

**FIGURE 4: CHANGES TO PROJECTIONS OF TEXAS TEACHER RETIREMENT BENEFITS**

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![Figure 4: Changes to Projections of Texas Teacher Retirement Benefits](chart.png)

- **TX TRS Tier 1 (1981-2007)**
- **TX TRS Tier 2 (1981-2007)**
- **TX TRS Tier 3 (2008-2014)**
- **TX TRS Tier 4 (2008-2014)**
- **TX TRS Tier 5 (Post-2014 non-grandfathered)**
- **TX TRS Tier 6 (Post-2014)**
- **70% Replacement Target**
Notice that all six tiers eventually get to roughly the same value by age 62, which would be 37 years of service for a teacher hired at age 25. And then the benefit value lines (all colors) continue to accumulate out past age 67 at mostly the same rates. However, depending on the tier of benefits it will take a lot longer to get to comparable benefits along the way from age 25 to age 62. Texas TRS Tiers 1 and 2 accumulate around $450,000 worth of lifetime income by age 52. But teachers in Tiers 3 and 4 need to work an additional 6 years to get to the same value. While teachers in Tiers 5 and 6 must work an additional three years after that.

Because the Texas Teachers Retirement System is a pension plan, it is normal to see the value of benefits accumulating later in a teacher’s career. This is not ideal for STW-Teachers or even MTW-Teachers, who by the time they leave will have not accumulated much in benefits relative to a path toward retirement income adequacy (the black dashed line on the figure). No matter which tier of benefits a teacher in Texas is enrolled in, they have accumulated almost no meaningful retirement income even after 20 years of service (age 45 on the chart above).

FCW-Teachers in most pension plans do eventually reach the adequacy line, which is why most pension plans for teachers serve them well (see "The National Landscape of Teacher Retirement Benefits" for more details on this). However, this is not true in Texas, as shown in Figure 4 above. The primary reason is that Texas TRS pension benefit provisions are not sufficient for a state that does not also universally participate in Social Security. There is no inflation adjustment built into benefits, vesting periods are protracted, and withdraw rules are weak.

3.3 SHIFTING COSTS ONTO THE TEACHERS OF TOMORROW

What these examples from Illinois and Texas show is how the costs for legacy benefits have effectively been shifted over onto new teachers. The benefits being offered to new teachers in Illinois since 2011 and in Texas since 2008 are all notably weaker than previously offered. That means the costs of providing these plans is less — in Illinois Tier 2 contribution rates are roughly 1/3 of the contribution rates for Tier 1. Because the contribution rates are less, that leaves more money that the state can use to pay down unfunded liabilities accumulated on its legacy teacher retirement plans.
Part 4: Retirement Benefit Scores for Legacy Teacher Plans versus Open Teacher Plans

There is little question that the pension benefits being offered today are less valuable than what was being offered in the past. But since all pension plans available to FCW-Teachers today are serving them well, a reduction in values doesn’t inherently mean an elimination of retirement income security. In fact, certain classes of benefits have improved their value and how well they serve members. There is enough variance nationally that looking at the implications of benefit changes by duration of employment worker profile is important.

Table 3 below provides some data on the quality of different plan types by showing the Retirement Benefits Scores for open plans as compared to legacy plans.

For pension plans the scores for open versus legacy plans are not substantively different. We think this is primarily because the “legacy” category is averaging a lot of different plans, some of which have been around for over a hundred years with many different tiers of benefits. The value of retirement benefits increased during the 20th century and then decreased, but the catch all “legacy” category includes several strong and weak pension plans.

For hybrid plans, the scores have increased over time in favor of open plans. We think this is because the early hybrid plans were poorly designed in terms of offering benefits, whereas newer plans have more creative approaches to manage the trade-offs of keeping costs manageable, risks low, but benefits adequate for providing a path to retirement income security.

There is no legacy defined contribution or guaranteed return plans for teachers today. There was a defined contribution plan in West Virginia that was closed in 2005 after the state decided to switch back to offering pension benefits.

### TABLE 3: CHANGES TO TEACHER RETIREMENT BENEFITS

<table>
<thead>
<tr>
<th>Plan Type</th>
<th>Plan Membership</th>
<th>Overall Benefits Score</th>
<th>STW-Teachers</th>
<th>MTW-Teachers</th>
<th>FCW-Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pension</td>
<td>Open Plans (New Hires Accepted)</td>
<td>56.6%</td>
<td>34.6%</td>
<td>48.5%</td>
<td>86.9%</td>
</tr>
<tr>
<td></td>
<td>All Legacy Plans</td>
<td>58.0%</td>
<td>36.2%</td>
<td>52.8%</td>
<td>85.1%</td>
</tr>
<tr>
<td>Defined Contribution</td>
<td>Open Plans (New Hires Accepted)</td>
<td>68.9%</td>
<td>56.8%</td>
<td>60.3%</td>
<td>89.6%</td>
</tr>
<tr>
<td></td>
<td>All Legacy Plans</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hybrid</td>
<td>Open Plans (New Hires Accepted)</td>
<td>64.6%</td>
<td>43.5%</td>
<td>58.7%</td>
<td>91.7%</td>
</tr>
<tr>
<td></td>
<td>All Legacy Plans</td>
<td>52.8%</td>
<td>22.8%</td>
<td>48.0%</td>
<td>87.7%</td>
</tr>
<tr>
<td>Guaranteed Return</td>
<td>Open Plans (New Hires Accepted)</td>
<td>49.4%</td>
<td>52.2%</td>
<td>50.1%</td>
<td>45.9%</td>
</tr>
<tr>
<td></td>
<td>All Legacy Plans</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Part 5: Conclusion — The Costs of Teacher Pension Debt is Being Passed on to Future Generations

Many of the lowest scoring pension plans for teachers are those that were created in the years following the Great Recession. While some states replaced their pension plans with lower-risk alternative plan designs that offered comparable benefits, others simply reduced the value of pension benefits offered to new teachers. The net result is that the value of pension benefits today is roughly $100,000 less than it was in 2005, a 13% decline over the past two decades.

Teachers who were already hired before states began creating new tiers of benefits with less value are still going to retire with the benefits they were promised. This means the benefit value reduction is going to be felt primarily by new generations of teachers.

All the new pension plans and benefit tiers were put in place as part of a wave of legislation to reduce costs and the risks to taxpayers from future investment shortfalls. These goals are understandable in the context of economic recession and financial volatility. And in the years since as teacher pension plans have accumulated over $600 billion in pension debt — i.e., unfunded liabilities — the costs of paying this down have become an acute burden for states and school districts.7

But the state legislatures who chose to continue offering pension benefits only through a lower-valued tier of benefits have effectively shifted the costs of their legacy retirement plans onto educators. By cutting the benefit values for future teachers, states are forcing those individuals to find additional ways to use their salaries to save for retirement independent of the state retirement system.

RELEVANT APPENDICES

- Appendix A: Measuring Retirement Security
- Appendix B: Methodology
- Appendix C: Retirement Systems Categories, by State
- Appendix D: Comparing Teacher Benefits with Public School Employee Benefits
- Appendix E: Ranking All Benefit Tiers

TO READ THE APPENDICES RELATED TO THIS PAPER, SEE “THE NATIONAL LANDSCAPE OF TEACHER RETIREMENT BENEFITS” AVAILABLE AT: https://equable.org/category/rsr-research/

FIND YOUR PLAN

The analysis in this paper focusing on averages and cohorts does not fully reflect the wide variance in plan designs and Retirement Benefit Scores for each individual plan. We encourage all readers to explore the digital tool to understand how different retirement plans function in practice. RetirementSecurity.Report allows readers to sort through plans according to their own aggregate rating within each section, letting users see which plans offer the best policy features, which plan designs reach a minimum standard for adequate retirement savings, what percentage of the workforce covered by a particular plan is likely to reach given retirement security benchmarks. From there, readers can reach conclusions about their preferred benefits for workers based on potential years of service and other factors.

VISIT RETIREMENTSECURITY.REPORT to explore a digital tool that provides individual Retirement Benefit Scores for each state retirement plan.

If you are a researcher and want to explore the raw data outputs or code for modeling, contact us at info@equable.org to obtain copies of the data files.
KEY TERMS AND DEFINITIONS

- **Adequate Retirement Income**
  For the purposes of this report, we have defined adequacy as a 70% replacement of final average salary. See methodology for further details about how we define salary and incorporate Social Security.

- **Short-Term Worker (STW-Teacher)**
  A teacher or public school employee who is enrolled in a public retirement plan in the same state for 10 years of service or less.

- **Medium-Term Worker (MTW-Teacher)**
  A teacher or public school employee who is enrolled in a public retirement plan in the same state for 10 to 20 years of service.

- **Full Career Worker (FCW-Teacher)**
  A teacher or public school employee who works their entire career participating in a public retirement plan in the same state.

- **Pension Plan**
  A retirement plan design based on a formula that accounts for years of service and final average salary. The typical pension benefit formula is years of service (ex. 20 years) x benefit accrual percentage (ex. 2% multiplier) x final average salary (ex. $75,000). The example scenario would yield a 40% of final average salary benefit, or a $30,000 annual pension.

- **Defined Contribution (DC) Plan**
  A retirement plan design based on contributions from members and employers into an individual account, which is then usually invested through professionally designed and managed funds. DC plans are usually defined as 401k’s or 403b’s, typically default members into target date funds, and sometimes allow individuals to automatically convert their accumulated account balance to guaranteed income through annuities.

- **Guaranteed Return (GR) Plan**
  A retirement plan design that offers guaranteed investment returns on contributions from members and employers to an individual account managed by the retirement system. GR plans are often formally called “cash balance” plans. The typical GR plan accumulates contributions, minimum investment returns (ex. 4% guaranteed returns), and a share of returns when the plan’s investments yield a return above the minimum threshold. Upon retirement, GR plans usually convert the accumulated account balance into guaranteed income, similar to annuities.

- **Hybrid Plan**
  A retirement plan design that mixes some combination of pension plan, DC plan, and GR plan. A typical hybrid plan provides a small pension plan (ex. using a 1% multiplier) and a small DC plan (ex. 3% employer contributions and 3% member contributions). Upon retirement, the income created by both elements of these retirement plans are combined for a single source of retirement income.

- **Retirement System**
  This is an umbrella organization authorized by a state or municipality to administer retirement benefits. A single retirement system could provide different retirement plan designs (e.g., pension, DC, GR, and hybrid plans). It might offer different retirement plans to different public sector workers depending on hire date and occupation.

- **Retirement Plan**
  This is a specific set of benefit provisions for a clearly defined group of public sector workers. The benefit provisions and rules determine whether the retirement plan is a pension, DC, GR, or hybrid plan. The plan may be offered to a narrowly tailored set of occupations, such as being only for public school teachers. The plan may be offered only to individuals hired on or after a particular date, with other retirement plans offered to those hired in other time frames.
About the Retirement Security Report

Retirement security is ultimately about retirement income. Families and individuals want to know that during their retirement years they will have enough weekly, monthly, or annual income to live comfortably and meet their basic needs. Of course, many people aspire to more than just the basics. Ask even a handful of individuals about how they want to live in retirement, and you’ll hear a wide range of preferences. Expenses can vary from family to family, too, depending on housing, health care costs, and dependents. So exactly how much income is necessary will vary according to a particular person or family. But at the simplest level, the focus is still on income. And retirement security is ensuring that individuals have access to adequate income during post-working years (we define adequate retirement income as at least 70% replacement of pre-retirement income).

How secure are the retirement prospects for public K–12 educators? This is the focus of this report, and the answer depends on where in the country a teacher is working and how long that teacher plans to stay in that job.

The “Retirement Security Report” (RSR) is a comprehensive assessment of the quality of benefits being offered to public sector workers nationwide. This specific report is an analysis of the quality of benefits for teachers and public school employees. While there is reasonable cause to analyze the financial sustainability of public sector retirement systems and their costs, that’s not what we are focused on in this study. The RSR is principally focused on the value of benefits being offered to public sector workers, including educators.

RSR SCORING STRUCTURE

The objective of the RSR is to assess public sector retirement systems by measuring the quality of benefits offered against a standard benchmark path to retirement income security. We use a scorecard approach to grade each retirement system on its own terms. The benefit provisions of each retirement plan are measured against a common set of standards, benchmarks, and best practices. The result is a Retirement Benefits Score for each retirement plan and class of benefits.

The Retirement Benefits Score is made up of points scored on three sets of criteria: Eligibility (how long it takes a teacher to be fully vested in their retirement plan); Income Adequacy (how benefits stack up against the accumulation pattern necessary to reach a 70% pre-retirement income replacement rate by age 67 or the normal retirement age of a plan); and Flexibility & Mobility (how well a retirement plan’s provisions support a worker being able to take employer contributions and accumulated benefits with them if they move to another job or to another state).

RSR MEASUREMENT OF RETIREMENT PLAN QUALITY

The points scored on all of the criteria are added up into the Retirement Benefits Score for each plan. (If a pension plan earns 18 of 25 available points, then we will report that plan as scoring 72% in this report.) We assess the quality of these plans and their scores based on the following measurement definitions:

- Retirement plans that earn 75% or more of available points are defined as “serving members well”.
- Retirement plans that earn between 50% and 75% of available points are “serving members moderately well”.
- Retirement plans that earn less than 50% of available points are defined as “not serving members well”.

See Appendix A for a summary of how we measure retirement security. For complete methodology of how Retirement Benefits Scores are calculated and for more on how the retirement scorecards should be used, see the introduction and appendixes of “The National Landscape of State Retirement Benefits: First Edition (2021).”

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8 Equable Institute’s “State of Pensions 2021” report found that as of the end of 2020, state retirement systems had reported a $1.49 trillion funding shortfall and estimated that even after strong 2021 investment returns that the funding shortfall was still over $1 billion. Retirement systems covering public school employees account for 44.26% of all public pension unfunded liabilities.

9 Retirement Benefits Score for DC plans: we grade the mobility of employer-funded contributions based on a more fine-grained measurement of vesting rules related to how much of those contributions a member can take with them in the event they leave their retirement plan. For guaranteed return plans: we grade the mobility of employer contributions in part on the size of the investment return guarantee offered.