EQUABLE

RETIREMENT SECURITY REPORT
Teacher Edition (2022)

The National Landscape of Teacher Retirement Benefit Security

How Good Are Public Retirement Systems at Putting Public K-12 Educators on a Path to Retirement Income Security?

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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.

Key Findings and Insights

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 **The five best states for new teachers to enroll in a retirement plan are South Carolina, Tennessee, South Dakota, Oregon, and Michigan.** Three of these states offer a hybrid plan (TN, SD, OR), while the other two offer a choice between a pension plan or a defined contribution (DC) plan (SC, MI).

03 **Teachers who work a full career in the same state are served well by all plan types** — including pension, defined contribution, guaranteed return, and hybrid plans. Teachers are highly likely to accumulate adequate retirement income if they spend their entire career covered by the same benefit class.

- Measured against one another, one plan design might be preferable to another based on the absolute size of retirement income provided, the availability of guarantees, or the ability for teachers to have some control over their plan.
- When measured against the benchmark of achieving 70% replacement of pre-retirement income, four out of five (82.3%) teacher benefit tiers are serving the Full Career Worker well. Across entry ages and worker profiles, there are four hybrid design plans, four traditional pension plans, and two DC plans that serve all teachers well on average.

04 **Most public K–12 educators and public school employees are not being served well by their retirement plans.**

- Over 63% of new teachers are expected to leave the classroom before they reach a decade of service in the same state. And very few of these individuals are on a path to adequate retirement income. Teachers who work up to 10 years in the same state are only served well by 2 out of all 264 teacher retirement plans — including current and legacy tiers of benefits. (One of these two is a defined contribution plan in South Carolina; the other, a hybrid plan in Tennessee.)

05 **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.

06 **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.

07 **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

The "Retirement Security Report" (RSR) is a comprehensive assessment of the quality of benefits being offered to public sector workers nationwide. This study uses the RSR methodology to analyze the retirement benefits being offered to K–12 public school teachers in the United States today.

DECLINING TEACHER RETIREMENT BENEFIT VALUES OVER TIME

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 is at its lowest point in modern history.

The primary driver of this phenomenon is state legislatures creating less expensive tiers of pension benefits that are only applicable to new teachers. In the years after the Great Recession, 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 June 30, 2011, can expect to earn a pension benefit roughly twice as valuable as those hired on July 1, 2011, or later — and the reason why is that the cost of providing the legacy teacher pension benefits had grown so much that the state legislature felt it needed to shift some of those costs onto future educators.

MOST TEACHERS TODAY ARE NOT BEING SERVED WELL BY THEIR RETIREMENT PLAN

Unfortunately, teachers who serve in the classroom for 20 years or less are not being served well by their retirement plans when it comes to being placed on a path to retirement income security. Short-Term Workers (STW-Teachers) are only served well by 2 out of the 264 retirement benefit tiers examined, including legacy benefit plans. And the average Retirement Benefits Score for plans serving STW-Teachers is just 36.3% of available points. Medium-Term Workers (MTW-Teachers) are served better on average by their retirement plans (scoring 52.5% of available points), but this is hardly satisfactory.

Many defined contribution (DC) plans and hybrid plans *could* work for teachers serving a decade or less (STW-Teachers). However, most of these plans currently lack adequate contribution rates from members and employers. As a result, there is a shortcoming in the quality of benefits that DC and hybrid plans actually provided to educators. Most teacher pension plans are not great for STW-Teachers either — though this isn't particularly surprising because pensions are designed to have backloaded accumulation of benefits.

Pension plans do stand out for not providing better benefits to MTW-Teachers, as just 12 out of 264 such teacher pension plans are serving these members who do up to two decades of service in the classroom well. For teachers enrolled in a pension plan and hired at age 25, after up to two decades of service their plans are only scoring 45.2% of available Retirement Benefits Scores on average. For those hired at 40 years old who work one to two decades, pension plans score only 59.8% of available Retirement Benefits Scores on average. This suggests there is room to improve pension plans for public K–12 educators putting in 10 to 20 years of service.

Fortunately, there is one group served well by all retirement plan types on average: teachers who work their full career and leave when they reach retirement eligibility. Whether enrolled in a pension plan, DC plan, or other alternative, an overwhelming majority of state retirement plans (218 out of 264) are serving members well if a teacher works in the same place until they reach normal retirement age.

UPDATING THE RSR AND THREE SPECIAL REPORTS

The 2021 edition of the RSR included 64 plans currently offered by states to K–12 educators. This report expands on that by adding municipal retirement systems that cover teachers and public school employees in specific cities — Chicago, Denver, Kansas City (MO), New York, St. Louis (MO), and St. Paul (MN). This report also expands the RSR dataset to include "legacy" tiers of benefits from teacher retirement plans no longer offered to new hires but still currently have members enrolled who were hired before changes were adopted. These updated data now cover 77 retirement plan classes of benefits that are open for new teachers to enroll in, plus an additional 187 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).

In addition to this paper analyzing the landscape of teacher retirement benefits in America, we have also published three special reports that provide a closer look at specific trends:

- **SPECIAL REPORT #1: "**THE FADING VALUE OF PENSION BENEFITS FOR TEACHERS IN AMERICA"
- **SPECIAL REPORT #2:** "THE BEST U.S. STATES FOR NEW TEACHER RETIREMENT BENEFITS"
- **SPECIAL REPORT #3:** "IMPORTANT ELEMENTS OF QUALITY TEACHER RETIREMENT PLANS"

Users can visit the RetirementSecurity.Report website to review individual Retirement Benefits Scores for all 585 retirement plans available to workers.

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.[1] 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).[2]

RSR MEASUREMENT OF RETIREMENT PLAN QUALITY

The points scored on all of the criteria are added up in 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 appendices of "The National Landscape of State Retirement Benefits: First Edition (2021)."

[1] 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.
[2] Retirement Benefits Score for defined contribution 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.

Introduction

Over the last two years educators have been on the frontlines of pandemic response, grappling with the logistical complexities of hybrid learning while also trying to keep their own families safe. Teacher retention generally has become a widespread concern, while efforts to improve the racial and ethnic diversity of the teacher workforce have become increasingly prioritized. And all of this comes in the wake of several years before the pandemic in which teacher strikes swept the country demanding improvements in wages and working conditions.

At the center of these various labor challenges is the fundamental question of the best way to compensate educators. How should salary be connected to fringe benefits?; what tools are most effective for recruiting and retaining teachers?; and what kind of retirement benefits are best for a modern, 21st-century teacher workforce?

Unfortunately, society has been asking teachers to hang on and battle through challenging working conditions without recognizing that at the same time it is asking teachers to do more for less. Even as average salaries have increased, we find that the value of retirement benefits has been steadily decreasing over the past few decades.

Important to keep in mind is that very few teachers actually work three to four decades in the same job in the same state. Public pension plan turnover expectations assume less than 1 in 4 of new hires will work more than 25 years of service and only 8.1% hired today are expected to make it to age 62, which is when many teacher retirement plans define a full career ending at the "normal retirement" age.[3] This is why looking at cohorts of teachers based on how long they serve provides a clearer picture of the landscape of teacher retirement benefits. Teacher retirement plans should not only be for those who spend their whole career in the same place.

WHAT WE HAVE DISCOVERED

1. **Full Career Workers (FCW-Teachers):** The vast majority of teacher retirement systems' benefit classes should provide retirement income security to their members, according to our analysis — so long as those teachers work a full career covered by the same retirement plan.[4]

Overall, 219 out of 264 classes of retirement benefits that enroll teachers serve their members well — scoring 75% or more of available Retirement Benefits Score points. We also found that 85.2% of retirement plans that are open for new members are serving full career educators well, which is similar to the 81% of legacy plans that serve their members.

A particularly important aspect of these finding is that they hold true for FCW-Teachers whether the retirement plan being measured is a pension plan, defined contribution (DC) plan, or hybrid design.

> Any of the four major types of retirement plans can be designed to ensure adequate retirement income for FCW-Teachers.

2. **Medium-Term Workers (MTW-Teachers), 10 to 20 years of service:** When looking at teachers who will work up to two decades covered by the same retirement benefit tier, we find that only 12 out of 264 are serving them well. Of the public school employee retirement plans that are only for non-instructional workers, just 1 out of 52 are serving their Medium-Term Workers well.

The average retirement plan for an MTW-Teacher is scoring just 52.5% of available points on the Retirement Benefits Score scale. This is 50% more points than plans' scores for STW-Teachers on average, but that doesn't make this poor performance acceptable.

[3] These figures are based on the retention pattern assumptions from teacher pension plans themselves and are based on a 25-year-old new female entrant. See Appendix B for more details.
[4] By "full career" we mean a teacher will work within the same retirement plan from age 25 until they reach the "normal retirement age" determined by their plan — typically between ages 60 and 67. This is the national average of cumulative turnover expectations for the 65 state-administrated retirement systems that offer the 219 teacher-specific pensions included in this analysis for a 25-year-old new female entrant. The average expected percentage retained at 25 years of service is 27%, and the median is 27.2%. The highest expected percentage remaining at 25 years of service is 53.4% and the lowest is 3.6%. **Source:** Equable Institute Benefits Database, data collected from public plan valuation reports and experience studies.

It may be surprising that these MTW-Teachers are frequently not accumulating benefits at a rate that will translate into adequate retirement income. Some may take the position that retirement benefits shouldn't be designed for transient teachers who may not put more than a few years into the profession, and that, ultimately, retirement plans ought to serve those who work for at least a decade or more. However, the RSR indicates that even MTW-Teachers on average are not being served well by their retirement plans, suggesting room for improvement.

Looking just at pension plans, we've found that the average score for legacy plans is 53% for MTW-Teachers, compared to 48.6% for pension plans that are actively enrolling new members. Alternative retirement benefit designs score better, but still are falling short of a standard benchmark for retirement income adequacy. Hybrid plans that are open for new members score 59.7% of available points for MTW-Teachers, while DC plans score 63% of available points.

The reason for pension plans' shortcomings is the value of benefits is low for the first 15 to 20 years, spiking only once someone gets to between 15 and 25 years of service (depending on the specific benefit provisions). For DC plans this is because the money flowing into the individual accounts from employers and members is often not sufficient to build adequate retirement savings. The retirement plans that do serve MTW-Teachers well are those that ensure adequate contribution rates and enable teachers to withdraw more than just member contributions if they leave before retirement.

The implications of this are particularly important for pension plans. The stakeholders in retirement systems, including labor leaders, should not simply assume that if pension plans are serving Full Career Workers well that they are serving all veteran teachers well.

3. Short-Term Workers (STW-Teachers), 10 years of service or less: There are very few benefit classes working for STW-Teachers. Just two out of 264 serving teachers who spend 10 years or less covered by the same retirement system are working well. This breaks down to one of the 36 hybrid plans and 1 out of the 8 DC plans in our dataset (which also includes 219 pension plans and 2 guaranteed return (GR) plans).

This finding is particularly stark. A frequent critique of pension plans is that their design focus on long-term retention means they are not great for STW-Teachers, and our findings confirm this as none of the pension plans are serving these teachers well, and 11 of 219 serve just moderately well. But another frequent idea is that retirement plan designs favoring "portability" of benefits are a good alternative to pensions. Our findings suggest that most of these public sector DC plans, GR plans, and hybrid plans are also not performing very well in practice. They perform better than pensions for STW-Teachers, but most lack adequate contribution rates to ensure teachers are accumulating adequate retirement income early on in their careers (even if those plans eventually accumulate adequate benefits).

The implication is that while some plans offer more portable benefits than pensions and offer teachers some agency over their retirement planning, they don't all necessarily put teachers on a path to adequate retirement income. Designing a plan that provides a path to secure retirement income needs more than just the underlying structure — i.e., individual accounts versus final average salary–based formulas — it requires thoughtful consideration of contribution rates and levels of guarantees (such as the gain sharing provisions in a GR plan).

4. The Evolution of Teacher Retirement Benefits: 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. In 1965 an average new teacher could expect to earn a pension benefit by age 65 that was worth $720,000 over the course of their retirement life (adjusted for inflation). By 2005 the average lifetime benefit for a teacher pension was up to $768,000, primarily driven by enhancements offered by legislators such as larger benefit multipliers. But that was the peak.

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 on or before December 31, 2010, can expect to earn a pension benefit that is roughly twice as valuable as on for those hired on January 1, 2011 or later — and the reason why is that the cost of providing the legacy teacher pension benefits had grown so much that the state legislature felt it needed to shift some of those costs onto future educators.

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 is at its lowest point in modern history.

Fortunately, while teacher pension benefits have largely been declining in value, some states have figured out 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), 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.

5. The Elements of Quality Teacher Retirement Benefits: One persistent debate in many states is over whether pensions are the only way to provide adequate retirement income to teachers. Often these debates put different plan designs against one another, such as a conclusion that pension plans are a better way to provide *guaranteed* income in retirement (highly valuable) whereas DC plans are a better way to provide portable benefits with individual agency. But the results of the RSR teacher edition suggest that when these retirement plan designs are measured against a common benchmark for adequate retirement income, they are all serving FCW-Teachers well.

The implication is that debates over retirement plan designs should not put designs against one another suggesting that only one or the other *can* provide retirement security. Any of the four major types of retirement plans (including GR plans) *can* be designed in a way that can ensure adequate retirement income for FCW-Teachers.

Instead, plan design debates should primarily be about the size of retirement benefits being offered to teachers, whether one plan design type offers larger income than another, whether the trade-offs associated with certain plan designs are appropriate for the current teaching workforce dynamic, and what the costs of the benefits are to teachers.

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 Appendix B for further details about how we define salary and incorporate Social Security.

Short-Term Worker (STW-Teacher)
A teacher or public school employee 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 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 enrolled 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, and they typically default members into target date funds, sometimes allowing 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 frame

Part 1: Which Teacher Retirement Plans Did We Measure?

This edition of the "Retirement Security Report" focuses on retirement plans offered to full-time public K–12 educators. It is important to note that retirement systems that cover teachers differ considerably across states and localities. One key difference is with respect to membership:

- Some retirement systems cover only certified K–12 teachers and similarly credentialed employees (e.g., California State Teachers' Retirement System; Ohio State Teachers Retirement System). These states have separate retirement systems for non-certified public school employees.
- Some states have retirement systems for a wide range of public employees, bundling teachers with state workers and/or municipal workers too (e.g., the Florida Retirement System; South Carolina Retirement System).
- Other states include teachers in retirement systems that also include non-certified public school employees and higher-education faculty (e.g., Michigan Public School Employees' Retirement System; Texas Teacher Retirement System).
- Furthermore, a few statewide systems serve a range of public employees but report out separate data for a special division or benefit plan specific to teachers and public school employees (e.g., Colorado Public Employee Retirement Association — Schools Division Fund).

For a list of the retirement systems for all 50 states that include see Appendix C. For a quick contrast analysis of teachers and non-teachers benefits see Appendix D.

While we generally use the phrase "teacher retirement plans" throughout this paper, the retirement plans covered include public school employees as well. Some of the plans offer the same benefits to higher-education faculty, but we do not include any benefits or plans in this dataset.

The first edition of the RSR (published in 2021) included all statewide retirement plans with benefits currently being offered to public employees. With this specific report, the RSR's dataset is expanding to include two additional sets of plans:

- Municipally managed retirement systems that cover teachers in a specific city; and
- "Legacy" tiers of benefits from teacher retirement plans that are no longer offered to new hires but still currently have members enrolled who were hired before changes were adopted.

1.1 MUNICIPAL PLANS FOR TEACHERS AND PUBLIC SCHOOL EMPLOYEES

Starting with this edition, the Retirement Security Report now includes the following municipal plans that were not already covered under the first report issued for the RSR:

- **Connecticut:** Hartford Municipal Employees' Retirement Fund – Board of Education Non-Bargaining Unit
- **Georgia:** Atlanta Board of Education Fund
- **Illinois:** Public School Teachers' Pension and Retirement Fund of Chicago
- **Minnesota:** St. Paul Teachers Retirement Fund
- **Missouri:** Kansas City Public School Retirement System; Public School Retirement System of St. Louis
- **New York State:** New York City Teachers Retirement System; New York City Board of Education Retirement System
- **Virginia:** Educational Employees' Supplementary Retirement System of Fairfax County

In future reports, we will add more city- and county-administrated systems that cover non-teachers/non-public education employees, starting with the largest based on liabilities and assets under management.

1.2 LEGACY PLANS FOR TEACHERS AND PUBLIC SCHOOL EMPLOYEES

This analysis is not only focused on plans still open and accepting new members. This paper also measures legacy retirement plans and classes of benefit tiers. By "legacy" we mean any plan or class of benefits that is active with enrolled members but does not allow new members to enroll under its provisions.

Most pension plans have varying benefit tiers based on hire date, meaning the underlying value of those benefits will differ in some way relative to individuals hired at different times. Common ways that benefits might vary within the same retirement system based on hire date are vesting rules, retirement eligibility rules, benefit multipliers, contribution rates, and definition of final average salary. It is important to note that based on the RSR methodology, we need to treat every tier of benefits as a separate plan to be graded and scored.

For example, our dataset currently covers both the Tennessee Teacher Legacy Pension Plan (which serves teachers hired before July 2014) and the Hybrid Retirement Plan for Tennessee state employees and teachers (which is for employees hired on or after July 1, 2014). Both plans are part of the Tennessee Consolidated Retirement System. Another example is the two-tiered design for the Illinois Teachers' Retirement System (TRSIL). All non-Chicago teachers in Illinois who started their jobs before January 2011 are enrolled in TRSIL Tier 1, but anyone hired on or after January 1, 2011 is enrolled in TRSIL Tier 2 — and the provisions for Tier 2 benefits are substantially less valuable than those provided for Tier 1.

Although legacy plans are no longer offered to new hires, we can still model the value of their benefits. We use the same data provided by retirement systems on starting salaries, salary merit increase schedules, and mortality assumptions. This approach offers the clearest, and most objective, way to allow users to compare the benefits offered by a legacy plan against the benefits that are currently offered by the retirement system.

1.3 SUMMARY STATISTICS FOR PLANS COVERED BY THE RSR TEACHER ANALYSIS

The RSR dataset includes pension plans and hybrid plans with accrued liabilities greater than $1 billion, plus all DC and GR plans that are intended to be a primary source of retirement income. And it includes all defined contribution plans and guaranteed return plans offered as a primary retirement benefit. These thresholds mean that we have included all primary retirement benefit plans offered to K–12 educators in America.

Our universe includes 66 retirement systems — 57 statewide systems and 9 local systems, as noted above. These systems represent 99 different retirement plans (including legacy plans), which break out further into 316 different classes (or tiers) of benefits. Most of these classes of benefits are traditional pension plans (268), while 37 are hybrid design plans, 9 are DC plans, and 2 are GR plans. Table 1 below breaks down these plan types by worker coverage classification:

TABLE 1: RETIREMENT PLAN TYPES MEASURED BY THE RETIREMENT SECURITY REPORT – TEACHER EDITION[5]

	Total	Pension Plan	DC Plan	GR Plan	Hybrid Plan
PLANS THAT COVER TEACHERS (CERTIFIED) ONLY	**194**	157	5	2	30
PLANS THAT COVER TEACHERS & NON-INSTRUCTIONAL STAFF	**70**	61	3	-	6
PLANS THAT COVER ONLY NON-INSTRUCTIONAL STAFF (NO TEACHERS)	**52**	50	1	-	1
TOTAL	**316**	**268**	**9**	**2**	**37**

[5] See Appendix E for a complete list of plans in this teacher benefit focused edition of the RSR.

Throughout this analysis, we aim to signal when the statistics shown are for "teacher" benefits versus those for "public school employees." If a retirement plan or class of benefits enrolls both teachers and non-instructional school employees, we simply consider that a teacher plan (the fact that non-teachers get the same benefits doesn't change any provisions for educators). Of the plans in our dataset, 196 classes of benefits are for teachers only, 69 are the same for teachers and public school employees, and 52 are just for non-certified, non-instructional public school employees.[6] In Appendix D we break out some of the statistics that compare benefit values across these three approaches to membership.

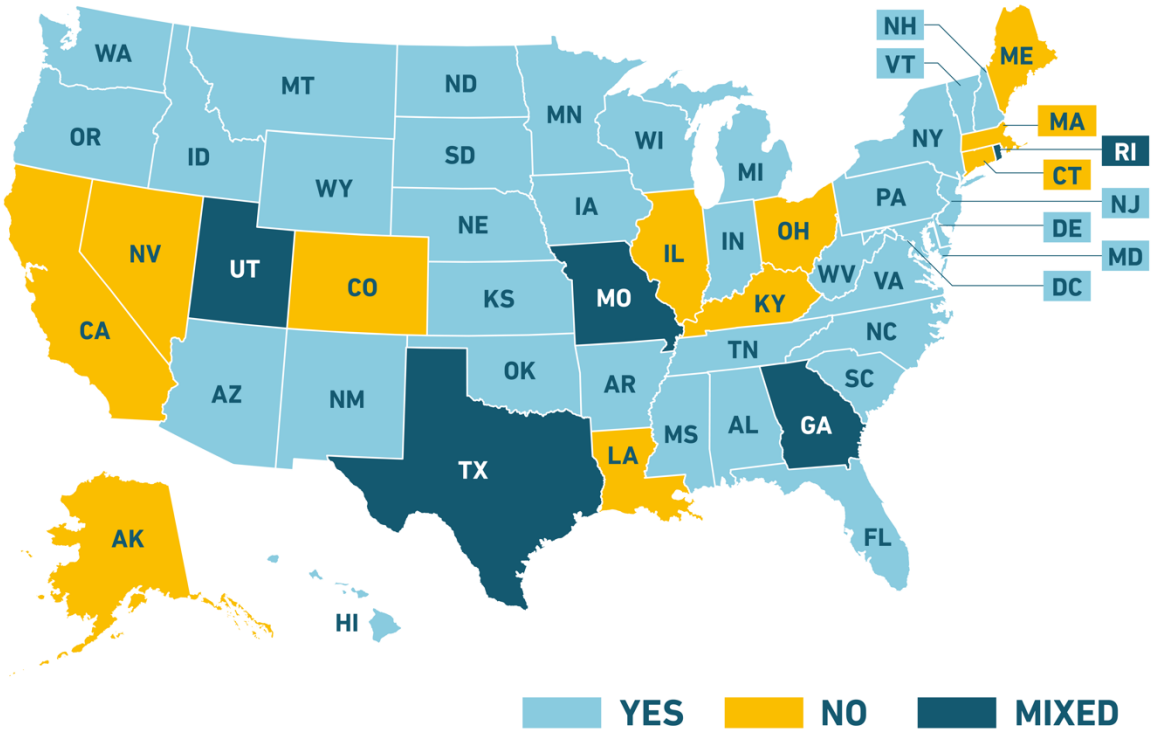
There are two aspects of retirement benefits *not* completely captured by the RSR. First, those who elect to take early retirement do not have the value of those benefits measured in this project. While the provisions related to early retirement can influence the value of benefits a retirement plan offers, the RSR is focused on measuring the value of benefits based on normal duration of employment. A future edition of the RSR may seek to incorporate early retirement into the methodology.

Second, death and disability benefits are not factored into the RSR. Inherently, the need for such benefits is unplanned and outside the norm for a retirement plan. While the value of such benefits is a worthwhile aspect on which to measure the quality of a retirement plan, this is beyond the scope of the current iteration of the RSR.

1.4 SOCIAL SECURITY: ARE TEACHERS COVERED BY SOCIAL SECURITY?

Not all public workers across the country are covered under Social Security. In particular, teachers constitute one of the largest groups of uncovered workers. Nationwide, more than a million teachers (about 40 percent of all public K–12 teachers) do not participate in Social Security. There are 11 states that have totally opted out of Social Security, and another 5 states have school districts with mixed coverage (because some districts have opted in, and others have opted out) as shown in Figure 1 below:

FIGURE 1: SOCIAL SECURITY COVERAGE FOR TEACHERS



To read more about why teachers do not have universal access to Social Security see our infographic "Where are teachers allowed to join social security?"

[6] We have included in the dataset for this paper retirement systems and benefit plans that are specific to public school employees. But we have not included general state employee plans where public school employees are non-specified members. For example, in California there is a specific retirement plan within CalPERS for non-certified school employees called Public Employees Retirement Fund B. And in Ohio there is an entire retirement system called the School Employees Retirement System. Both of these examples are included in this dataset. However, in Connecticut, public school employees are simply members of the State Employees Retirement System that covers many other kinds of public workers. We do not include this plan in the data for this paper (though it is included in the Retirement Security Report general data).

1.5 CHOICE: DO TEACHERS HAVE A CHOICE OVER THEIR RETIREMENT PLAN?

In some statewide retirement systems, new teachers have a choice about what retirement plan they enroll in by offering different options for members to select as a primary benefit. Table 2 lists which systems offer choices to public K–12 teachers and public school employees and what those choices are:

TABLE 2: RETIREMENT SYSTEMS THAT OFFER CHOICE, BY PLAN TYPE

Retirement Plan Type	Retirement System	Description of Available Choices
HYBRID PLAN OR DC PLAN	Indiana Public Retirement System	By default, new teachers are enrolled in the Teachers' Retirement Fund Hybrid Plan. Alternatively, new teachers can elect to join Indiana's My Choice: Retirement Savings Plan, which is a DC plan. For new hires, their retirement plan selection must be made within 60 days of their start date.
	Michigan Public School Employees Retirement System	By default, new teachers are enrolled in the state's DC plan. Members can make an affirmative decision to join a hybrid plan instead, known as Pension Plus 2. Workers hired between 2012 and 2018 may be enrolled in the original Pension Plus hybrid plan, which has slightly different rules.
	Pennsylvania Public School Employees' Retirement System	By default, new teachers and public school employees are enrolled in a hybrid plan. Educators have the option of selecting a different hybrid plan (with lower contributions and lower benefits). Alternatively, new hires can elect to enroll instead in the state's standalone DC plan.
	Utah Retirement System	Tier II teachers, those hired on or after July 1, 2011, can choose between the Hybrid Retirement System and the Defined Contribution Plan. New hires must make their selection within the first year of employment.
PENSION PLAN OR DC PLAN	Florida Retirement System	By default, new teachers and public school employees are enrolled in the Florida Retirement System Investment Plan, which is a DC plan. Alternatively, educators can elect to participate in a traditional pension plan, the Florida Retirement System Pension Plan. For new hires, their retirement plan selection must be made on the last business day of the 8th month after their hire date.
	South Carolina Retirement System	Teachers can either participate in the South Carolina Retirement System, which is a traditional pension plan, or in its State Optional Retirement Program, which is a DC plan. By default, members are enrolled in the pension plan.
PENSION PLAN OR HYBRID PLAN	Washington Teachers' Retirement System & Washington School Employees' Retirement System	New teachers and public school employees have 90 days to choose among two available retirement plans: Tier 2, which is a traditional pension plan; and Tier 3, which is a hybrid plan.
PENSION PLAN, HYBRID PLAN OR DC PLAN	State Teachers Retirement System of Ohio	New teachers have 180 days from their first day of paid service to select from three possible plans: Defined Benefit Plan, Defined Contribution Plan, or the Combined Plan (which is a hybrid plan). If teachers do not make a selection, they are automatically enrolled in the Defined Benefit Plan, which is a traditional pension plan.
PENSION PLAN OR PENSION PLAN	Nevada Public Employees' Retirement System	School districts have the option of whether to offer a choice of pension plans to new teachers and public school employees. One pension plan has all costs paid by the employer, usually resulting in slightly lower salaries. The other pension plan has shared contributions from the employee and employer, which also means the members are entitled to a refund of their contributions if they leave early and withdraw from the pension fund.

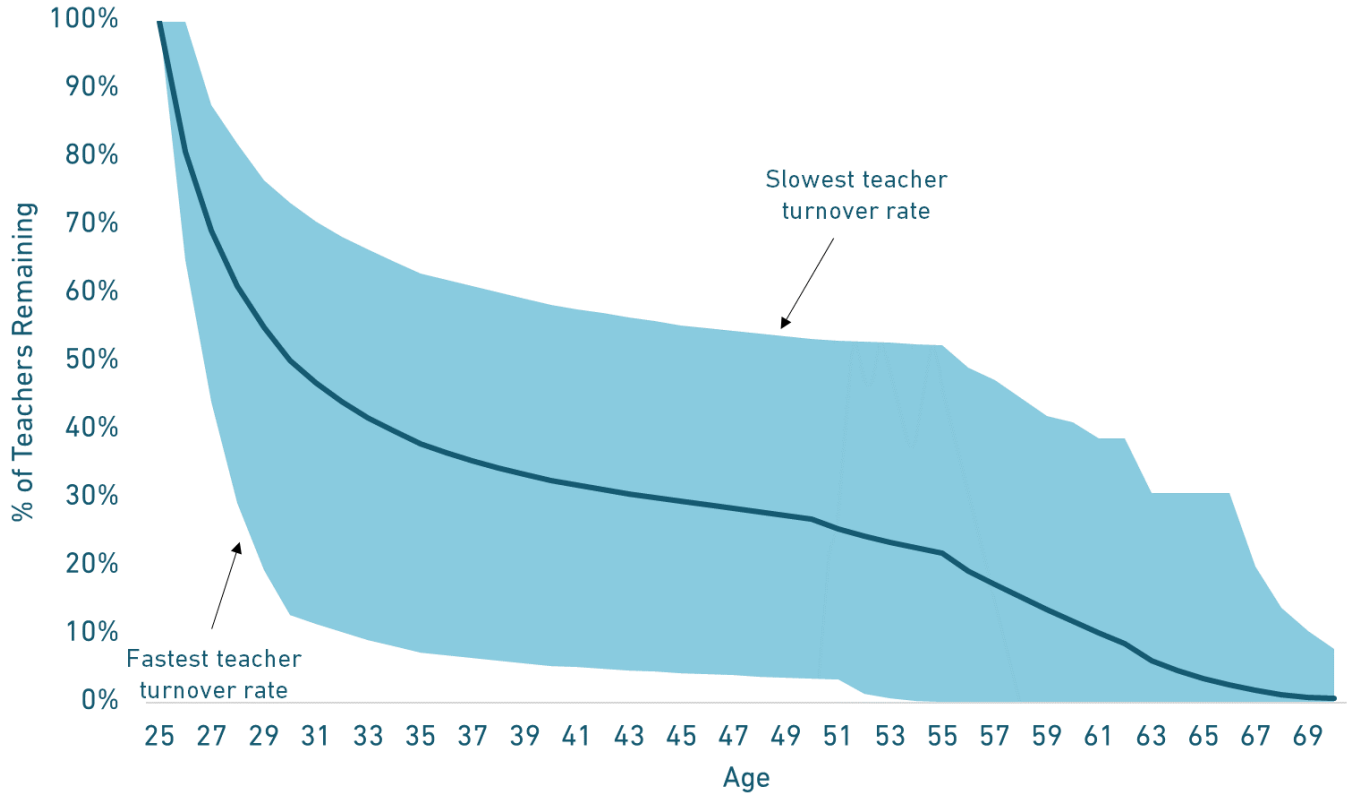
1.6 NATIONAL AVERAGE TURNOVER PATTERN FOR TEACHERS AND PUBLIC SCHOOL EMPLOYEES

Given the Covid-19 pandemic, the recent academic year was unlike any other. After a nationwide school closure during the spring of 2020, teachers had to adapt to unexpected conditions, raising concerns about a potential increase in teacher turnover and its implications.

Public pension plans typically publish within their actual valuations, or periodic experience studies, an estimation on the probability of termination for members of the retirement system. These are often broken down by age and years of service. We collected these data for all the public pension plans in the RSR data and, Figure 2 shows the average turnover pattern that is projected for a new, 25-year-old teacher.

- The yellow bold line shows the average turnover pattern for all public school teachers across the states.
    - On average, retirement systems expect 62% of new teachers hired at age 25 to leave before they get to 10 years of service, and 70.4% are expected to leave by the time they complete their 20th year of service.
- The blue shaded area behind the line shows the range from the slowest turnover pattern (the top part of the shaded area) to the fastest turnover pattern (the bottom part of the shaded area).
    - Depending on the state and retirement plan, there is between a 37% and 92.5% chance of a teacher leaving before reaching a decade of service. The range of turnover around the 20-year-of-service mark for a teacher extends from 44.6% to 95.6% chance of leaving.

FIGURE 2: NATIONAL AVERAGE TUROVER PATTERN FOR PUBLIC SCHOOL TEACHERS



Source: Equable Institute analysis of public pension plan turnover assumption data

Understanding the expected turnover patterns for teacher retirement systems is important for interpreting Retirement Benefits Scores by length of service. As the figure shows, the bulk of new teachers are going to leave before they get to 20 years of service, meaning the scores for Short-Term Workers and Medium-Term Workers are reflective of the majority of the K–12 workforce.

States define a "full career" differently, though typically it is reaching age 60, 62, 65, or 67. A number of teacher pension plans allow for retirement at any age with 30 or 35 years of service. However, a teacher pension plan defines its normal retirement rules, only a small minority of teachers are expected to reach this point. Turnover projections show that retirement systems only expect 15.6% of teachers to reach 30 years of service and 12.1% to reach age 60 with 35 years of service.

Generally, turnover patterns typically level off somewhere after 10 years of service, when essentially all members would be vested in their retirement plan. Turnover rates then gradually decline until a retirement plan's normal retirement eligibility age. At that point, typically between ages 55 and 65 (or around 30 years of service), there is a sharper decline in turnover as most public school teachers and non-instructional employees still in the retirement plan will leave when they first can start drawing retirement income.

We see this when we look at just the 36.1% of educators (teachers and public school employees) who make it to 10 years of service, based on the median retirement plan. Of this group, 76.4% are going to work another decade and get to 20 years of service, which is a much larger level of retention during the second decade of service than the first. The turnover speed picks up a bit after that. Of the 25.8% of educators who serve for two decades, 71% are going to reach 30 years of service.

This attrition may be entirely normal for a large population of workers or be considered a retention problem, depending on the perspective retirement policy experts want to take. For the purpose of the RSR we don't make any value judgment on this but simply draw from these patterns to offer reasonable observations of variance across states given by the benefits provision of a certain plan design.

1.7 A NOTE ABOUT CHARTER SCHOOLS

Some states that allow charter schools to opt out of participation in a public retirement system.[7] Teachers who work in these schools do not accumulate service credit toward the state's teacher retirement system. However, in other states there is a requirement that charter schools be allowed to participate in the state's teacher retirement system, and these states both enroll their employees in that plan and make contributions.

For the purposes of this analysis, we did not have to make any assessments about charter schools or their participation. We are measuring retirement plans at the level of the benefits that they offer to members. Implicit in this is that this means we are covering benefits offered to teachers at public charter schools that enroll members in public retirement plans, and we are not covering the benefits offered independently by charter schools that have been allowed to opt out of the state's retirement system.

[7] For a partial assessment of which charter schools are in or out of public school retirement systems, see "Pensions Under Pressure," *Education Next 18, No. 2,* Spring 2018.

Part 2: The State of Teacher Retirement Security Today

The primary objective of the RSR is to measure the quality of a specific retirement plan's benefits against a standard benchmark, allowing each plan to be assessed on its own terms. However, it is also valuable to understand the landscape of teacher retirement benefits generally by comparing Retirement Benefits Scores to one another. Table 3 below some of the best- and worst-performing teacher retirement benefit tiers on RSR metrics, averaging across entry ages, worker profiles, and plan types; legacy plans closed to new hires are marked with an asterisk (see Appendix E for a complete list of all plans for teachers and non-instructional employees):

TABLE 3: BEST- AND WORST-PERFORMING TEACHER PLANS, AVERAGED ACROSS ALL WORKER PROFILES AND PLAN TYPES

Rank	Plan Name	Benefit Class/Tier Name	Plan Type	Benefits Score
1	South Carolina Optional Retirement Plan	SC RS Teachers ORP	DC Plan	94.2%
2	Tennessee Teacher Retirement Plan	TN TRP Hybrid	Hybrid	88.2%
3	Employees' Retirement System of the State of Hawaii	ERSHI Teachers Hybrid Pre-2012*	Hybrid	79.2%
4	South Dakota Retirement System – Generational Plan	SD RS Generational Plan Teachers	Hybrid	78.7%
5	Oregon Public Employees' Retirement System	OR PERS School District OPSRP	Hybrid	78.6%
6	Washington Teachers' Retirement System – Plan 1	WA TRS Pension Plan 1*	Pension	77.6%
7	New York City Teachers Retirement System	NY NYC Teachers Tier 2*	Pension	75.7%
8	New York City Teachers Retirement System	NY NYC Teachers Tier 1*	Pension	75.4%
9	Michigan Public School Employees' Retirement System – Defined Contribution Plan	MPSERS DC Teachers	DC Plan	75.3%
10	Employees' Retirement System of the State of Hawaii	ERSHI Teachers Pre-1984*	Pension	75.1%
246	Texas Teachers' Retirement System	TX TRS Tier 4*	Pension	43.9%
249	Employees' Retirement System of Rhode Island – Teachers Division	RI ERSRI Teachers Schedule B Non-SSA*	Hybrid	42.3%
255	Texas Teachers' Retirement System	TX TRS Tier 2*	Pension	41.9%
256	Utah Public Employees Contributory Retirement System – Tier 2 Defined Contribution Plan	UT Teacher Tier 2 DC	DC Plan	41.3%
257	Employees' Retirement System of the State of Hawaii	ERSHI Teachers Pre-2006*	Pension	41.2%
258	Michigan Public School Employees Retirement System – Legacy Plan	MPSERS Pension Teachers Basic	Pension	39.9%
259	Florida Retirement System Defined Benefit Plan	FL RS Pension Regular K–12 Post-2011	Pension	36.1%
260	Louisiana Teachers' Retirement System	TRSL Teachers Pre-2011*	Pension	33.8%
263	Florida Retirement System Defined Benefit Plan	FL RS Pension Regular K–12 Pre-2011*	Pension	32.8%
264	Louisiana Teachers' Retirement System	TRSL Teachers Pre-1999*	Pension	27.3%

2.1 ANALYZING THE BEST AND WORST PERFORMING RETIREMENT PLANS

A first takeaway from Table 3 is that **many of the top performing plans overall have fairly unique alternative plan designs.**

- For example, South Carolina Optional Retirement Plan, which is a DC plan, has immediate vesting (meaning benefits generated are fully portable) and offers a combined contribution rate equal to 14% of salary (9% from members and 5% from employers), which is particularly strong for members who also are participating in Social Security.
- Tennessee's Hybrid Retirement Plan for teachers combines elements of a pension plan and a DC plan. The retirement plan stands out for offering a combined contribution rate equal to 17% of salary (very strong), across the pension and defined contribution plan, while also allowing immediate vesting of all employer contributions into DC plan accounts. This is an improvement over a typical five-year vesting period for a pension because if a teacher leaves the classroom or moves from the state before vesting, they will have to forfeit their employer's contributions.
- The third, fourth, and fifth ranked plans on the list in Table 3 are statistically similar hybrids, but with very different structures. The hybrid from Hawaii combines guaranteed return benefits with a pension plan. The South Dakota hybrid plan is primarily a pension, but with two-year vesting and a kind of DC plan account with only employer contributions that supplements the pension plan upon retirement. And the Oregon hybrid plan is a DC account with only member contributions, side by side with a pension plan.
- All five of these states have built unique alternatives to the traditional pension plan and successfully provide most of their teachers with a solid path to retirement income adequacy.

A second, related takeaway is that all **four pension plans that cracked the top-10 list are legacy plans.**

- When averaging across all worker profiles (STW-, MTW-, and FCW-Teachers), there are four classes of benefits that closed to new hires before the 1990s that were offering particularly strong retirement benefits. Two were from the New York City Teacher Retirement System (a pension tier closed since 1973 and its successor that closed in 1976), one was from the Washington Teachers' Retirement System (a pension plan closed since 1977), and one was from the Employees' Retirement System of the State of Hawaii (a pension plan closed since 1984).
- The highest ranked pension plan that is open to new hires is Washington Teachers' Retirement System Plan 2, a pension plan that replaced the pre-1977 Plan 1 tier of benefits in the top 10 of this table. The Washington TRS Plan 2 scores 74.4% of available points scored, which is statistically very similar to the scores for the Washington TRS Plan 1 (77.6%) and NYC TRS Tier 2 (75.7%). This shows that it is structurally possible to develop a new set of benefit provisions that don't require drastically slashing benefit values for new hires. Unfortunately, as further analysis in this report will show, there several states that weren't able to match these accomplishments.

A third high-level takeaway from Table 3 (above) is that **most of the worst-performing plans listed are pension plans.**

- In some respects, this isn't a complete surprise as the bulk of retirement plans offered to teachers are pension plans.[8] When averaging across all worker profiles covered by a pension plan, they simply do not stand up well to a measurement of whether they are working for all members.
- Pension plans traditionally offer limited flexibility or mobility, which is why they do not score well for STW-Teachers and MTW-Teachers, and thus don't always score well for the overall averaging. However, pension plans don't *have to* reject these types of benefit provisions — as the high showing for a few pension plans demonstrates.

An important caveat to any analysis that ranks retirement plans across states is **that there may be localized reasons for the particular set of benefits offered**. Some states may offer lower valued retirement benefits and larger salaries. There are complexities related to whether government employers also participate in Social Security, and how that relates to costs and benefit values.

[8] The lowest ranked hybrid plan is at 250 out of 264 plans (Rhode Island Teacher plans offered to those not enrolled in Social Security) and the lowest ranked DC plan is at 257 (the Utah Retirement System Tier 2 DC plan).

The important takeaways from ranking charts like Table 3 should not be whether Hawaii's pre-2012 hybrid plan (with 79.2% points scored) is better than South Dakota's currently offered Generational Plan (with 78.7% points scored). Instead, analysis should focus on the various trends that we can see within the rankings. Those trends include how retirement plan design types are represented, whether a preponderance of legacy plans at the top signals some downward shift in benefits for new hires, and how well plan benefits that include Social Security are stacking up against those where members are not also enrolled in Social Security.

2.2 TEACHER BENEFITS RANKED, BY RETIREMENT PLAN TYPE

Tables 4 through 7, below and on the next pages, show how the various teacher benefit tiers performed in the RSR (averaging across all worker types and entry ages) broken out for each of the four plan types, plus a breakdown of how well each plan type is serving the three different worker groups. This level of analysis offers insights into the best- and worst- overall performers for each retirement plan type.

TABLE 4: BEST- AND WORST-PERFORMING TEACHER PENSION PLANS, AVERAGED ACROSS ALL WORKER PROFILES

1	WA TRS Plan 1 Pension*	77.6%	204	MI PSERS Pension Teachers Basic 4%*	45.9%
2	NY NYC Teachers Tier 2*	75.7%	205	TX TRS Tier 6	44.9%
3	NY NYC Teachers Tier 1*	75.4%	206	IL TRS Tier 2	44.6%
4	ERSHI Teachers Contributory Pre-1984*	75.1%	207	TX TRS Tier 5*	44.3%
5	ERSHI Teachers Contributory Pre-1971*	74.7%	212	ERSHI Teachers Pre-2006*	41.2%
6	WA TRS Plan 2 Pension	74.4%	213	MI PSERS Pension Teachers Basic*	39.9%
7	NY NYC Teachers Tier 3*	74.2%	214	FL RS Pension Regular K–12 Post-2011	36.1%
8	NY NYC Teachers Tier 4*	74.2%	215	TRSL Teachers Pre-2011*	33.8%
9	MD SPRS Teachers Plan B*	73.2%	218	FL RS Pension Regular Class K–12 Teachers Pre-2011*	32.8%
10	VRS Teachers Pre-2010*	72.3%	219	TRSL Teachers Pre-1999*	27.3%

Note: Legacy plans are marked with an asterisk. Classes of benefits from the same retirement plan with similar scores have been removed from the table above to improve clarity, including four from Texas TRS and two from Louisiana TRS.

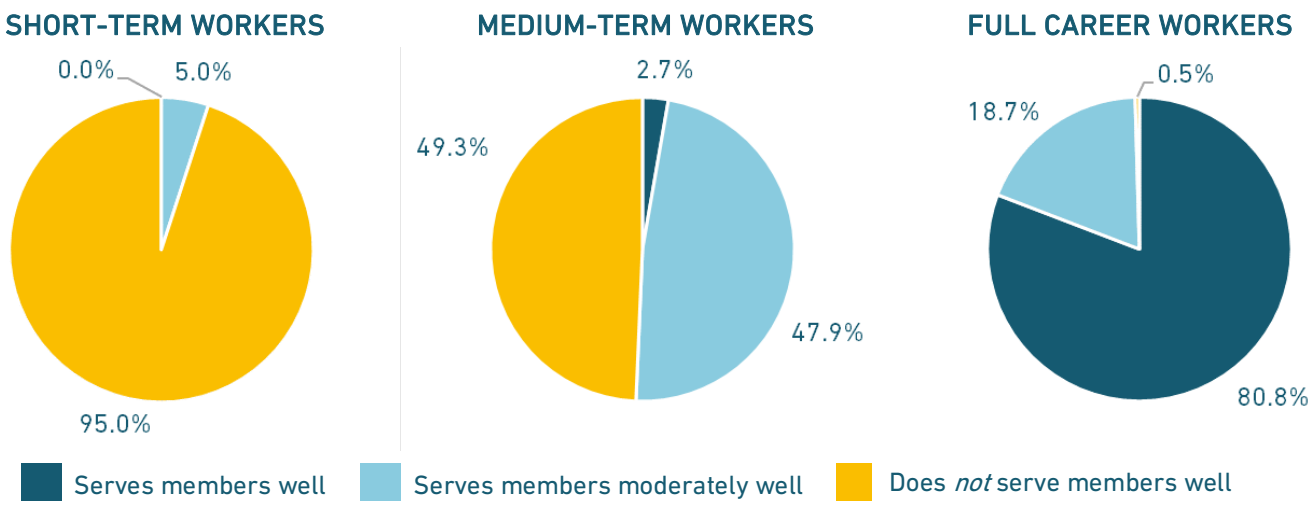


TABLE 5: GUARANTEED RETURN PLANS FOR TEACHERS, AVERAGED ACROSS ALL WORKER PROFILES

1	KS PERS Schools	54.6%	Serves members moderately well across all worker types.
2	CalSTRS GR Option	44.2%	Does not serve members well across all worker types.

TABLE 6: BEST- AND WORST-PERFORMING TEACHER HYBRID PLANS, AVERAGED ACROSS ALL WORKER PROFILES

1	TN TRP Hybrid	88.2%	17	OH STRS Hybrid Post-2015	56.0%
2	HI ERSHI Teachers Hybrid Pre-2012*	79.2%	18	PA PSERS Class T-H Hybrid	54.9%
3	SD RS Generational Plan Teachers	78.7%	19	PA PSERS Class T-G Hybrid	54.9%
4	OR PERS School District OPSRP	78.6%	20	IN TRF Pre-1996*	54.5%
5	RI ERSRI Teachers Schedule B2 Non-SSA	73.9%	21	IN TRF Pension Pre-2019*	54.5%
6	OR PERS School District Pension Tier 2*	71.5%	22	RI ERSRI Teachers Schedule A SSA	53.4%
7	HI ERSHI Teachers Hybrid	71.0%	28	IN TRF Hybrid	52.8%
8	VRS Teachers Hybrid	70.7%	29	OH STRS Hybrid Pre-2015*	52.3%
9	WA TRS Plan 3 Hybrid	70.4%	30	KY TRS Hybrid K–12	46.1%
10	UT Teacher Tier 2 Hybrid	67.5%	31	RI ERSRI Teachers Schedule A Non-SSA*	42.3%

Note: Legacy plans are marked with an asterisk. Classes of benefits from the same retirement plan with similar scores have been removed from the table above to improve clarity, including six from Rhode Island's Schedule A for Social Security enrollees and six from their Schedule A for non-Social Security enrollees.

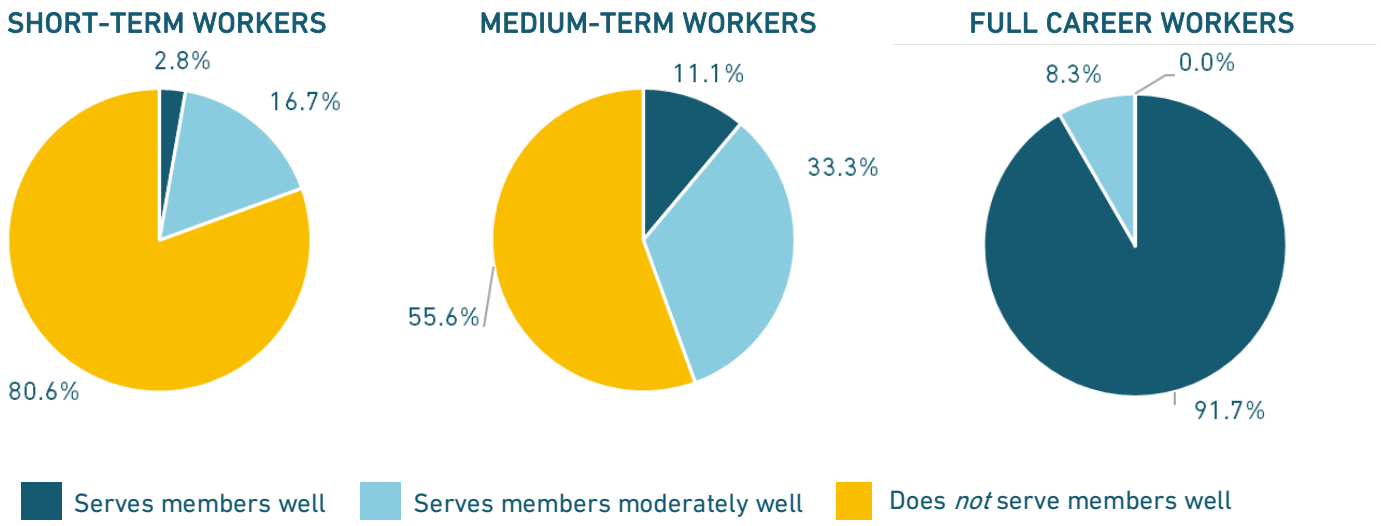
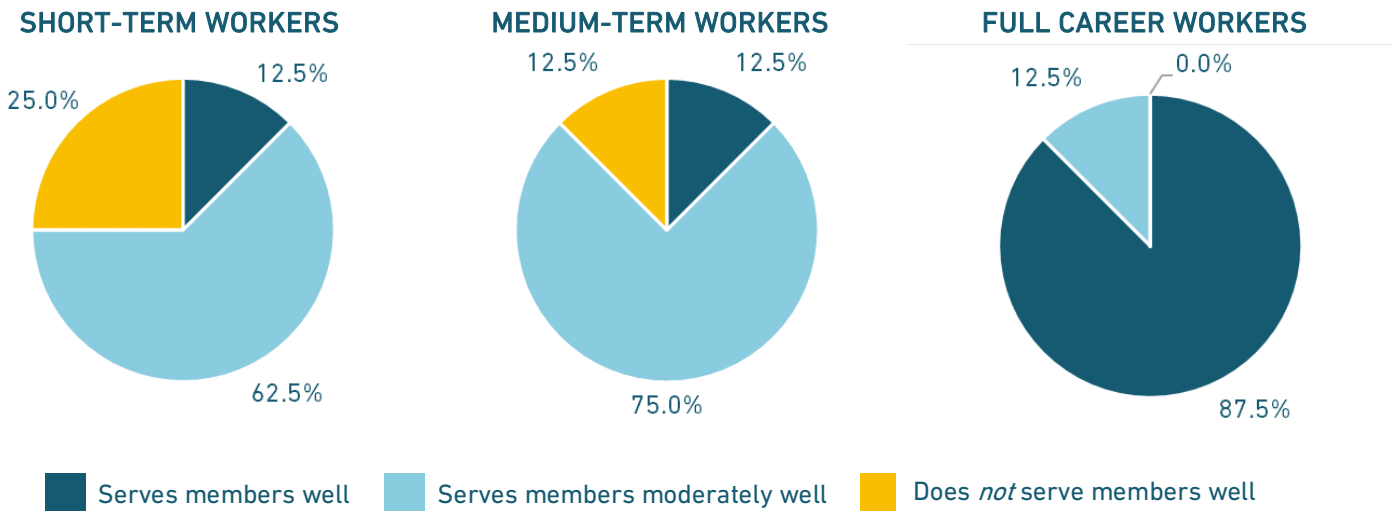


TABLE 7: BEST- AND WORST-PERFORMING TEACHER DEFINED CONTRIBUTION PLANS, AVERAGED ACROSS ALL WORKER PROFILES

1	SC RS DC Teachers	94.2%	5	OH STRS DC	69.9%
2	MI PSERS DC Teachers	75.3%	6	PA PSERS DC	65.1%
3	FL RS DC Regular K–12	73.7%	7	IN TRF DC	61.1%
4	AK TRS DC	70.3%	8	UT Teacher Tier 2 DC	41.3%

Note: There are no legacy plans in this list.



2.3 BENEFITS AVAILABLE FOR NEW TEACHERS RANKED, BY WORKER PROFILE

The scores that average across worker profiles (Tables 4–7) have some limited interpretability because what a teacher values in their retirement plan design shifts over their career. Teachers who will spend 10 years or less in the classroom will value the portability of their retirement benefits more than a FCW-Teacher; those who will accumulate meaningful pension benefits will value the inflation protection provisions for their future income more than those who are going to withdraw their contributions.

We also have broken out data on the quality of retirement plans from each of the perspectives of a STW-Teacher, MTW-Teacher, and FCW-Teacher. Tables 8 through 10 show the 10 best and worst performing teacher retirement plans for each worker profile, averaged across all entry ages. The tables *only show plans that are open for new teachers*. (See Part 3 of this paper for a comparison of plans with open benefits versus legacy benefits.)

TABLE 8: BEST- AND WORST-PERFORMING BENEFIT PLANS FOR NEW STW-TEACHERS (10 YEARS OR LESS)

		Points	Plan Type			Points	Plan Type
1	SC RS DC Teachers	86.2%	DC Plan	65	DE SEPP Teachers Post-2012	24.9%	Pension
2	TN TRP Hybrid	77.9%	Hybrid	66	WV TRS Tier 2 Teachers	24.8%	Pension
3	FL RS DC Plan Regular K–12	66.5%	DC Plan	67	IN TRF Hybrid	22.5%	Hybrid
4	SD RS Teachers Generational	62.3%	Hybrid	68	GA TRS	22.0%	Pension
5	RI ERSRI Teachers Schedule B2 Non-SSA	60.0%	Hybrid	69	WI RS Teachers Current	19.6%	Pension
6	OR PERS School District OPSRP	59.3%	Hybrid	70	TRSL Teachers Post-2015	19.0%	Pension
7	MPSERS DC Teachers	58.3%	DC Plan	71	NV PERS Teachers – Employer Pay Post-2015	18.4%	Pension
8	ND Teachers Post-2013	55.7%	Pension	72	IL Chicago Teachers Tier 2	16.5%	Pension
9	AK TRS DC	55.7%	DC Plan	73	IL TRS Tier 2	9.5%	Pension
10	PA PSERS DC	55.5%	DC Plan	74	FL RS Pension Regular K–12 Post-2011	9.3%	Pension

TABLE 9: BEST- AND WORST-PERFORMING BENEFIT PLANS FOR NEW MTW-TEACHERS (10 TO 20 YEARS)

		Points	Plan Type			Points	Plan Type
1	SC RS DC Teachers	96.4%	DC Plan	65	RI ERSRI Teachers Non-SSA	40.2%	Hybrid
2	TN TRP Hybrid	86.7%	Hybrid	66	IL Chicago Teachers Tier 2	37.0%	Pension
3	OR PERS School District OPSRP	76.6%	Hybrid	67	TX TRS Tier 6	35.4%	Pension
4	SD RS Teachers Generational	75.5%	Hybrid	68	TX TRS Tier 5	35.0%	Pension
5	WA TRS Plan 3 Hybrid	72.6%	Hybrid	69	UT Teacher Tier 2 DC	34.2%	DC Plan
6	VT STRS Group C Post-2010	72.2%	Pension	70	NJ TPAF Post-2011	32.8%	Pension
7	NY NYC Teachers Tier 6	71.5%	Pension	71	WI RS Teachers Current	29.7%	Pension
8	HI ERSHI Teachers Hybrid	71.5%	Hybrid	72	IL TRS Tier 2	29.3%	Pension
9	WA TRS Plan 2 Pension	71.0%	Pension	73	TRSL Teachers Post-2015	20.8%	Pension
10	AR TRS Teachers	68.0%	Pension	74	FL RS Pension Regular K–12 Post-2011	15.6%	Pension

TABLE 10: BEST- AND WORST-PERFORMING BENEFIT PLANS FOR NEW FCW-TEACHERS (FULL CAREER)

		Points	Plan Type			Points	Plan Type
T1	AR TRS Teachers	100.0%	Pension	65	VA EESRS Post-2001	68.9%	Pension
T1	HI ERSHI Teachers Hybrid	100.0%	Hybrid	66	TX TRS Tier 6	67.8%	Pension
T1	MN TRA Post-1989	100.0%	Pension	67	GA TRS	67.1%	Pension
T1	MPSERS DC Teachers	100.0%	DC Plan	68	TX TRS Tier 5	66.4%	Pension
T1	NY STRS Tier 6	100.0%	Pension	69	KY TRS Hybrid K–12	63.2%	Hybrid
T1	OH STRS DC	100.0%	DC Plan	70	TRSL Teachers Post-2015	61.5%	Pension
T1	OR PERS School District OPSRP	100.0%	Hybrid	71	KS PERS Schools Post-2015	59.1%	GR Plan
T1	SC RS Teachers ORP	100.0%	DC Plan	72	UT Teacher Tier 2 DC	56.1%	DC Plan
T1	TN TRP Hybrid	100.0%	Hybrid	73	MS PERS Teachers Post-2011	55.8%	Pension
T1	WA TRS Plan 2 Pension	100.0%	Pension	74	CalSTRS GR Option	32.7%	GR Plan

Note: In total, 12 plans scored 100% of available points for full career teachers. This table includes 10 of these plans, presented alphabetically and chosen to represent the variety of plans that provide a secure retirement. It's also noteworthy to add that out of the 264 teacher benefit tiers under study, 81.9% (217 plans) serve well for full career teachers, across all plan types and entry ages. For a full list, see https://equable.org/rsrteacher100s/

2.4 ANALYZING TEACHER BENEFITS RANKED BY RETIREMENT PLAN TYPE

The quality of teacher retirement benefits today is strong in certain states and very weak in others. Looking at the national landscape, a striking finding is that most of the top-performing teacher retirement plans today are either legacy pension plans or alternative retirement plan designs open to new members (see Table 3). Reviewing the Retirement Benefits Scores for the best- and worst-performing classes and tiers of benefits by retirement plan type (Tables 4–7), a few takeaways jump out:

- None of the top-performing pension plans scores above 80% of points available, when averaged across all worker profiles. This is echoed in the charts below Table 4 that show teacher pension plans are not working well for teachers who work for up to two decades, though they are strongly performing for full-career-in-a-single-state teachers.
- Only one state is offering full-time teachers access to a guaranteed return plan — Kansas. These have been legislatively proposed in Kentucky and Louisiana in the past, but not implemented. Both Hawaii and Kentucky provide teachers with hybrid plans that include a guaranteed return plan, but those are not shown in Table 5, as they would be included with the other hybrid plans.
- Almost all the top-performing hybrid plans shown in Table 6 (8 out of 10) were established for members starting in 2011 or later — the scores for these top plans are similar to the top performing pension plans. The wave of benefit design changes that came after the financial crisis led some states to create new, less valuable tiers of pension benefits, while other states created hybrid plans (or other alternative designs and choice sets). At a glance, it appears that states creating hybrid plans were more likely than not to have kept the value of the retirement benefits similar for all worker years-of-service profiles, compared to those who just slashed pension benefits for new members.
- There are only eight states that offer defined contribution plans to teachers, and the value of those benefits ranges considerably. Table 7 shows how much the underlying benefit provisions of a DC plan can matter with respect to whether the individual retirement account approach can provide a path to adequate retirement income security.

2.5 ANALYZING BENEFITS FOR NEW TEACHERS RANKED BY WORKER PROFILE

While the story of how retirement benefits has changed over time is important, a particularly critical question for the education workforce today is what the quality of benefits are for new teachers.[9] A later section of this paper (Part 4) will look closer at how these benefits are distributed across and within states.

Reviewing the Retirement Benefits Scores for the best- and worst-performing classes and tiers of benefits for new teachers by worker profiles (Tables 8–10), we made the following observations:

- All but one of the top 10 plans for STW-Teachers are DC plans or hybrid plans, which make sense given that those retirement plan designs are favor trade-offs toward portability of benefits. However, there is a steep drop-off in the quality of Retirement Benefits Scores after the first two plans listed in Table 8 (above). Most of the top 10 are only serving STW-Teachers moderately well, either because the contribution rate structure for the hybrid plans is poor or because the DC plans have overly long vesting periods.
- There are three pension plans with Retirement Benefits Scores above 70% of available points for MTW-Teachers, shown in Table 9. These plans for new teachers in Vermont, New York City, and Washington show that it is possible to design pension benefits that serve 20-year classroom veterans well (even if most pension plans don't do this).
- Looking at the poorest performing plans for new STW-Teachers and MTW-Teachers (Tables 8 and 9, above), the results for those starting out in the classroom in Florida, Louisiana, Illinois, and Wisconsin suggest that they may not be serving teachers well or putting them on a path toward a secure retirement. The pension plans offered there are effectively just forced-savings plans — not really retirement plans — unless those teachers stay beyond two decades of service.
- Most new teachers entering the workforce today are going to be served well by their retirement plan if they put in a full career. There are 12 retirement plans that score 100% of available points for new FCW-Teachers (10 of which are shown in Table 10, above), including pension plans, hybrid plans, and DC plans.

2.6 TEACHER BENEFIT SCORES BASED ON SOCIAL SECURITY ELIGIBILITY

Roughly 40% of educators in the United States are not enrolled in Social Security (see Section 1.4 in this paper). These teachers are concentrated in 11 states, including a few with large populations (California, Illinois, and Texas). Theoretically, the value of retirement benefits for members in these states is supposed to be larger in these states to compensate for the lack of access to the federal social safety net for retirees. However, we found that retirement plans designed for those without Social Security are not keeping up and have consistently lower Retirement Benefits Scores than plans where members are also enrolled in Social Security benefits:

- The average score for STW-Teacher plans (averaging across all plan design types) for those that include Social Security is 38.9% of points available; for those without Social Security it is 30.2% of points available.
- The average score for MTW-Teacher plans (averaging across all plan design types) for those that include Social Security is 55.7% of points available; for those without Social Security it is 44.7% of points available.
- The average score for FCW-Teacher plans (averaging across all plan design types) for those that include Social Security is 90.3% of points available; for those without Social Security it is 76.7% of points available.[10]

Most of the Retirement Benefits Score variance with respect to Social Security participation is within pension plans and hybrid plans. This is because there are only three defined contribution plans available as a primary retirement benefit to teachers without Social Security (AK, CO, OH). The other states that offer DC plans as an option all participate in Social Security (FL, IN, MI, SC, WA).

[9] Retirement plans that are open to new members are not necessarily new — the Georgia Teachers' Retirement System has one class of benefits that started in 1943.
[10] Among the handful of states where Social Security enrollment varies by district, the average scores tend to fall between those with and without Social Security benefits. The average for STW-Teachers is 35.4%, the average for MTW-Teachers is 50.3%, and the average for FCW-Teachers is 78.8%.

Table 11 below breaks down the average scores for these two types of retirement plans, depending on whether the plans include Social Security. We include legacy plans and new hire plans in these averages and show the total number of plans that count in each category:

TABLE 11: AVERAGE RETIREMENT BENEFITS SCORES BASED ON SOCIAL SECURITY PARTICIPATION

STW-Teachers		SSA Participating	Not SSA Participating	Mixed SSA Participating
Pensions	Average Benefits Score	38.4%	29.8%	33.7%
	Number of Benefit Classes/Tiers	150	64	5
Hybrids	Average Benefits Score	35.8%	26.3%	45.6%
	Number of Benefit Classes/Tiers	24	11	1
MTW-Teachers				
Pensions	Average Benefits Score	54.9%	44.7%	51.5%
	Number of Benefit Classes/Tiers	150	64	5
Hybrids	Average Benefits Score	58.5%	41.3%	60.4%
	Number of Benefit Classes/Tiers	24	11	1
FCW-Teachers				
Pensions	Average Benefits Score	89.7%	76.4%	79.8%
	Number of Benefit Classes/Tiers	150	64	5
Hybrids	Average Benefits Score	94.6%	78.4%	96.7%
	Number of Benefit Classes/Tiers	24	11	1

Note: The "Benefits Score" shown is the average percentage of available Retirement Benefits Score points earned by the class or tier of benefits.

Part 3: The Value of Teacher Retirement Benefits Has Changed Over Time

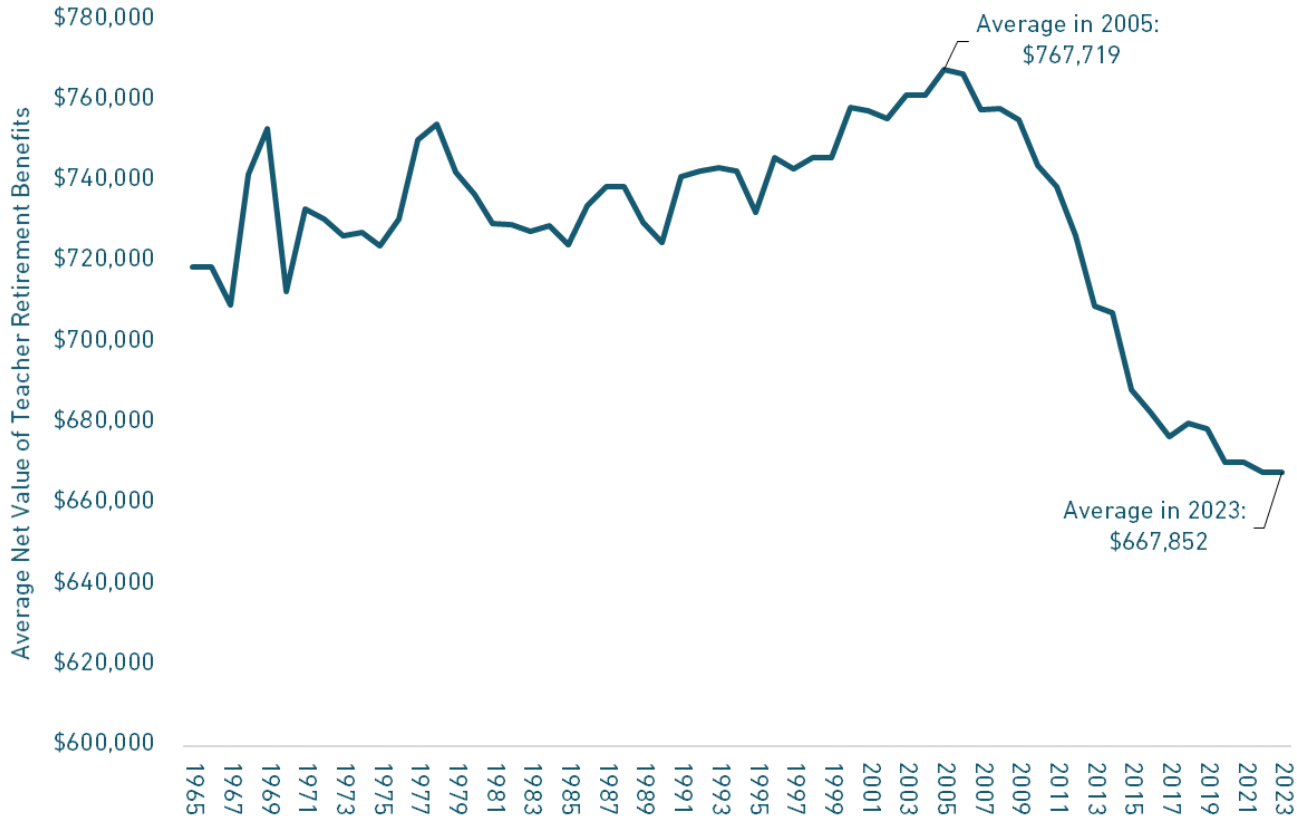
Among the first teacher retirement plans set up were pension funds in Chicago (1895), St. Paul, MN (1909), and New York City (1917). Most teacher retirement systems set up by states and cities across America were set up between 1930 and 1965. Over the past few decades, dozens of new classes and tiers 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 Figure 3 below. Using data on retirement plans going back six decades, 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.

Given national narratives about the benefits of teacher pension plans, this calls into question whether teachers joining the education workforce today are receiving equal compensation relative to their veteran peers. For more details comparing legacy teacher retirement plans to open plans, see our special report: "The Fading Value of Teacher Pension Benefits."

FIGURE 3: 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.

Part 4: Where in the U.S. Are the Best Teacher Retirement Benefits for Tomorrow's Teachers

There are 77 retirement plans open to new teachers in the U.S. today. The majority of these are pension plans (63.6%), while hybrid plans (23.4%), and defined contribution plans (10.4%) make up the bulk of the rest. Kansas is the only state with an open guaranteed return plan for teachers today. Among the hybrid plans, the vast majority are a combination of a pension plan and defined contribution plan, though there are two states that combine a pension plan and guaranteed return plan (Hawaii, Kentucky).

There are nine states that allow a choice of benefits (see Section 1.5 in this paper for details), most of which offer two choices (though Ohio and Pennsylvania give teachers three choices). These choices are not always of equal value and can have significant trade-offs for members.

Given this range of retirement benefits available today, across the states and within the states, it is valuable to review how the open teacher retirement plans stack up against one another today. Table 12 shows the top 10 states based on the quality of the teacher retirement plans that are open to new members. States with more than one plan are ranked based on the best plan currently offered to new teachers.

To see a full ranking of the 50 states plus Washington D.C., as well as a ranking where states with multiple plans for new members are graded based on the average score of the retirement plans that they offer, **see our special report: "**The Best U.S. States for New Teacher Retirement Benefits."

TABLE 12: 10 BEST STATES BY HIGHEST QUALITY RETIREMENT PLAN OFFERED TO NEW TEACHERS

Rank	State	Plan Type	Overall Benefits Score	STW-Teachers	MTW-Teachers	FCW-Teachers
1	South Carolina	DC Plan‡	94.2%	86.2%	96.4%	100.0%
2	Tennessee	Hybrid	88.2%	77.9%	86.7%	100.0%
3	South Dakota	Hybrid	78.7%	62.3%	75.5%	98.3%
4	Oregon	Hybrid	78.6%	59.3%	76.6%	100.0%
5	Michigan	DC Plan‡	75.3%	58.3%	67.7%	100.0%
6	Washington	Pension‡	74.4%	52.2%	72.6%	100.0%
7	Rhode Island	Hybrid	73.9%	60.0%	63.3%	98.3%
8	Florida	DC Plan‡	73.7%	66.5%	63.0%	91.8%
9	Hawaii	Hybrid	71.0%	41.7%	71.5%	100.0%
10	Virginia	Hybrid	70.7%	51.5%	62.3%	98.3%

Note: Overall Benefits Score is maximum score for any teacher retirement plan in the state.
‡ Indicates this plan is one of two choices offered to new teachers. South Carolina and Florida offer the choice of a DC plan or pension plan. Michigan offers the choice of a DC plan or hybrid plan. Washington State offers the choice of hybrid plan or pension plan.

Part 5: Key Features of Quality Teacher Plans

What are the factors that lead to a quality teacher retirement plan that will put an individual on a path to adequate retirement income? In this paper we provide an assessment of whether different teacher retirement plans are working well for teachers across all benefit design types, worker profiles based on career duration, and entry ages. Using the results of that analysis, we can draw insights about the kinds of benefit provisions for different plan designs by looking at the best-performing retirement plans offered to teachers.

There are 10 retirement plans with a class of benefits that earns 75% or more of available Retirement Benefits Score points when averaged across all worker profiles (e.g., STW-, MTW-, and FCW-Teachers). Each plan is detailed at the top of Table 3 (see Part 2 in this paper).

Looking closely at the plan provisions for these 10 tiers of retirement benefits for teachers, we've found at least four "value drivers" that appear to be key reasons for the quality of the retirement plan:

- **Total contributions.** Regardless of plan design types, total contribution rates north of 12% of payroll (even higher for most cases) are consistent trademarks of high-quality plans.
  - For the two DC plans, total contributions from members and employers are at 14%, which fits most expert recommendations for DC plan contribution rates where individuals are also enrolled in Social Security. South Carolina splits its rates at 9% member + 5% employer, while Michigan has members contribute 7% to get a 7% employer match.
  - For the pension plans, large normal cost contribution rates reflect an underlying actuarial recognition in the cost of a large benefit.
  - Large member contributions to pension benefits, whether on their own or part of a hybrid, also can contribute significantly to the "value" of a benefit for STW-Teachers when also paired with an above average crediting interest rate. This is because non-vested teachers will be able to take larger dollar amounts with them when they leave, effectively because the pension benefit was a forced savings plan instead of a retirement plan.
  - For the hybrid plans, the typical member contribution to the DC plan or GR plan portion of the benefit was 5%.

- **The crediting interest rates.** The interest rate offered by a retirement system on refunded contributions in the event of a withdrawal is a key factor in determining the mobility of a plan's benefits, which helps the scores for STW-Teachers and MTW-Teachers. The typical crediting interest rate for high quality hybrid plans or pension plans is between 2.5% and 4.5%. The higher the interest rate (sometimes considered as more "generous" rates), the more it will ensure that the teacher will at least depart the system with some moderate savings (which could then help them continue saving for retirement).

- **Defined benefit plan multipliers.** For pension plans, whether on their own or part of a hybrid plan, the average multiplier factor for a quality retirement plan is 2%.[11] Naturally, a higher benefit multiplier translates into a more substantial benefit that can put a teacher onto a path toward a secure retirement income.

- **Cost-of-Living Adjustments.** Inflation protection is important for ensuring promised retirement benefits provide secure income over time and as a valuable benefit financially. The highest-quality plans have COLA provisions with rates that are comparable to, if not in excess of, the underlying pension plan's inflation assumption.

For a complete review of these key factors and a specific list of features that ground quality teacher retirement plans, **see our special report: "Important Elements of Quality Teacher Retirement Benefits."**

[11] A teacher's annual retirement benefit is determined by first multiplying their years of service in the system at retirement by the plan's benefit multiplier to their replacement rate (i.e., the percentage of their pre-retirement salary that their benefit will replace).

Part 6: Conclusion

This edition of the "Retirement Security Report" is intended to help provide a picture of what kind of retirement benefits are currently being offered to public school teachers in the U.S. today, in additional to measuring how those benefits have changed over time. We hope that this provides teachers themselves, policymakers, and the general public with a tool for measuring the quality of teacher benefits offered by public sector retirement systems.

While there is some value in comparative analysis of teacher retirement benefits, the underlying Retirement Benefits Score information is best reviewed on a plan-by-plan basis at RetirementSecurity.Report. On that interactive website, each retirement plan's scores can be reviewed in detail, along with contextual information about the retirement system providing those benefits.

6.1 SHORT-TERM AND MEDIUM-TERM WORKERS

An important takeaway from the RSR is that the majority of STW-Teachers are not being served well by their retirement plan. About 0.7% of the benefit classes are serving STW-Teachers well, and 10.3.% are serving them moderately well. Those numbers are absolutely unacceptable and suggest a systematic failure to support teachers who spend 10 years or less in the classroom with a path toward retirement income security.

MTW-Teachers are doing slightly better, with 5% of retirement plans serving them well, and 48.6% moderately well. These figures hold whether analyzing benefits based on a starting age of 25, or a mid-career entrant at age 40. Still, these figures are also appalling given the time of service for MTW-Teachers. There is no reasonable argument to say that someone who works for 15 or even 20 years in the classroom should get *all of their* retirement income from a single retirement plan. However, working as a teacher for 10 to 20 years is a significant level of service that deserves to at least be matched by a plan that puts the individual on a path to adequate retirement income. As it stands, the status quo is not treating MTW-Teachers as professionals.

It is not surprising that pension plans do not perform well for STW-Teachers. The backloaded nature of pension plans means it is very hard to design affordable benefit provisions that work for those serving 10 years or less. It is surprising, though, that pension plans do not perform well on average for MTW-Teachers, with only roughly half (51.4%) of the benefit classes offered now or in the past serving teachers moderately well or better.

Again, the notion that a teacher or a public school employee could put in up to 20 years of service and still not be on a path to retirement income security should cause policymakers to reflect seriously on the quality of pension benefits being offered.

6.2 FULL CAREER WORKERS

Another important finding is that all types of retirement plans are working for FCW-Teachers, with only two benefit tiers not serving teachers well. There is no surprise to see pension plans working well for those who put in a full career, as a pension's basic design is intended to offer the strongest retirement income to those who serve 30 years or more. Some may be surprised, though, to see DC plans and hybrid plans performing just as well as pensions, or better, for FCW-Teachers.

The common understanding is that pensions are better than alternative plan designs. However, comparing pensions against DC plans — the frequent "DB versus DC" debate — is not the right framework for assessing the quality of retirement plans. Measuring all plans against a common benchmark for retirement income adequacy instead means comparing each retirement plan on its own and assessing how well it is serving members. It is always possible that one plan design might provide higher valued benefits for a certain set of teachers than another design, but it is also possible that two different plan designs could both underperform and not serve teachers well.

Comparing each teacher retirement plan on its own against a common benchmark shows that most of what is being offered

today can work to provide retirement income security as long as the benefit provisions are designed appropriately and a teacher works their full career covered by the same plan in the same state.

There are still other considerations with respect to pensions, DC plans, and hybrids (GR plans, too). Different plan designs offer trade-offs between the level of guarantees built into the retirement plan and the flexibility and mobility of benefits. Investment risks are distributed in different ways, and inflation protection can vary. But at a minimum, the RSR shows that there should not be a debate over whether only one type of retirement plan can offer retirement income security for teachers. They all can. The questions to ask are whether the retirement plan benefit provisions are designed appropriately and how a state wants to distribute costs and risks among taxpayers and teachers.

6.3 HOW ALTERNATIVE PLAN DESIGNS ARE FALLING SHORT OF THEIR PROMISE

Among the best retirement plans for teachers are a DC plan in South Carolina and hybrid plans in Tennessee, Hawaii, South Dakota, and Oregon. However, there is a sharp drop off in quality from these plans to other retirement plan designs that are alternatives to traditional pensions.

A clear finding from the RSR measurement of teacher hybrid plans and DC plans is that as a whole they are not performing as well for STW-Teachers as they theoretically should be. Only 31% of hybrid plans serve teachers moderately well or better. Six out of the eight primary retirement DC plans serve STW-Teachers moderately well or better, but only one of them scores above 75% of available points for those with 10 years in the classroom or less.

DC and hybrid plans are often presented as offering greater mobility to members of the workforce than pension plans, and our results provide evidence supporting that argument. But simply being *better than* pensions doesn't mean they are providing retirement income *security*.

There is a promise of mobility of retirement benefits that hybrid plans and DC plans are falling short of, primarily because of longer than necessary vesting periods and occasionally low contribution rates. This is something that can be easily remedied by modifying vesting rules for teachers going forward.

6.4 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 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.[12]

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.

[12] See "State of Pensions 2021," Equable Institute.

6.5 WHERE TO GO FROM HERE

The analysis in this paper focusing on averages and cohorts does not fully reflect the wide variance in plan designs and Retirement Benefits 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, and 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 the preferred benefits for workers based on potential years of service.

There are many ways in which different states and localities have designed their retirement systems to effectively put public K–12 educators and public school workers on a path to retirement income security — each of these specific elements should be mined and put together to create frameworks for how poorly performing retirement plans can be improved. There is no reason why the public sector should not be offering quality retirement plans based on the best practices adapted to the 21st-century, ensuring that all teachers have a path to retirement income security.

Appendices

Appendix A: Measuring Retirement Security

A.1 DEFINING AN ADEQUATE RETIREMENT INCOME

The simplest way to think about adequate retirement income is to identify how much money an individual or family would need in retirement to maintain their pre-retirement lifestyle and consumption patterns when they decide to stop working. But getting from that simple frame to a specific dollar amount is where the complexity kicks in. Retirement planning specifics will differ depending on gender and career income patterns. The appropriate age of retirement will differ based on industry and profession. Health care costs are varied by individual and geography. And all these factors are before considering that some may want to change their lifestyles in retirement and will need to plan to have adequate resources to meet those goals.

As we recognize the need to dig into these complexities, straightforward and generalized targets are necessary. Therefore, w*e define adequate retirement income as reaching a 70% replacement of pre-retirement salary by age 67.*

For a comprehensive overview of our approaches to RSR definition of adequate retirement income see our first edition of "The National Landscape State Retirement Benefits" report, or specifically our Retirement Security Report Methodology.

KEY TARGETS

- **Replacement Rate Target** – we define adequate retirement income as 70% replacement of working years income.[13]
- **Retirement Age Target** – we focus on using a simple replacement rate of final average income at age 67.[14]
- **Pre-Retirement Income Definition** – our methodology allows every state to define pre-retirement income using their own standards.[15] We use either the pre-retirement income definition rule from an associated pension plan, or, if no rules exist, we use the member's estimated salary at age 67.

ADDITIONAL CONSIDERATIONS

- **Social Security Income** -the 70% replacement-rate target is inclusive of Social Security Income (SSI).[16] We assume an individual will be on the same career income path, by applying the accumulation of SSI evenly throughout a worker's career.
- **Supplemental Income** – our project does not make an assumption about supplemental income savings rates as they would be highly speculative. We do not factor in other forms of deferred compensation or retiree health benefits.

ADEQUACY THRESHOLD

We translate all of these terms into a common adequacy benchmark that every retirement plan is measured against. We set a retirement wealth target at age 67 that is sufficient to be turned into 70% of pre-retirement income, inclusive of SSI (if relevant). Then, we effectively draw a straight accrual line of steady replacement income from ages 25 to 67. Therefore, this line represents adequacy threshold that shows an amount that individuals should be targeting for annual accumulation of retirement wealth.[17]

[13] See Appendix A for a brief literature review on the debate over using an appropriate rate of replacement of pre-retirement income.
[14] Age 67 is later than the specified "normal" retirement age for many public retirement systems. However, this target age provides a consistent adequacy target for all plans to ensure an objective assessment, regardless of plan design or other confounding factors. It allows us to appropriately blend in SSI where relevant. Our methodology for FCW-Teachers assumes they work until their specified normal retirement age even if it is less than 67 and utilizes the income replacement earned at that point. Someone who works until age 65, for example, will have two years before they can start collecting SSI and they will need to have personal savings or some plan to cover the difference until their full replacement income is available.
[15] While we avoid many of the complexities that come with pre-retirement income, we are attentive to the maximum pensionable salaries as identified in plans' respective actuarial valuation reports or maximum replacement rates; or, in cases where neither are applied, we designate the maximum final salary at $230,000 as that matches the designation from the IRS.
[16] For the sake of the RSR, we assume SSI to provide retirement income equal to a 33% replacement rate. This is attributed to Social Security's own estimates that SSI should account for approximately 40% of lifetime career earnings; however, this definition differs from the more typical final salary or final average salary used by public retirement systems. As a result, we reduce the 40% estimate to 33% for the sake of our models.
[17] See Figure 1 from "The National Landscape State Retirement Benefits" report for an illustration of the retirement income adequacy threshold.

This allows for a benchmark that is flexible enough to account for variance in salary trends with each plan. However, this approach asks an individual to be accumulating an equal amount of replacement-rate income every year, even though their salary will be lower earlier in their career than later. To account for this, we've set 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 defined as "**serving members moderately well**".
- Retirement plans that earn less than 50% of available points are defined as "**not serving members well**".

A.2 HOW WE SCORE EACH RETIREMENT PLAN?

To comprehensively analyze the retirement security of a given retirement plan, we have created a robust approach that considers: adequate retirement income, when individuals become eligible for benefits, the adequacy of benefits, how flexible the design of those benefits are, and how sustainable the benefits appear to be.

KEY SECTIONS

The RSR contains three sections for each retirement plan:

- **The Plan Overview & Information section** is designed to provide topline information about the plan and data points of interest.[18] *This information is not included in the scoring and none of the measures in this section affect the assessment of any plan in the RSR.*

- **The Retirement Benefits Score** is the main component of the scorecard profile for each retirement plan. This is broken down into scores for "Eligibility," "Adequacy," and "Flexibility and Mobility".

- **The Plan Sustainability Score** is a snapshot of elements that contribute to the sustainability of benefits over time.[19] (Since DC plans have no risk of underfunding, they do not have Plan Sustainability Scores).

KINDS OF PUBLIC WORKERS

Different types of workers should place different values on the three elements of the Retirement Benefits Score — "Eligibility", "Adequacy", and "Flexibility and Mobility".[20] To account for the variance in what aspects of a retirement plan's design are important depending on career stage[21], we have designed the RSR to have adaptive measurements for three kinds of public workers:

- **Short-Term Workers (STW):** An individual who works for a public sector employer(s) participating in the same retirement plan for 10 years of service or less. Individuals in this stage of their career should be focused on eligibility rules, the adequacy of benefits, and how flexible the benefits are to be portable to another employer-sponsored plan should they change jobs, careers, or move across state lines.[22]

[18] Such as: the occupations covered by the plan, whether members had a choice of other retirement plans, whether supplemental retirement savings options are offered by the plan, employee contribution rates, availability of annuities, and reported investment management fees.
[19] This score offers an examination of the funded status of a retirement system by asking the sorts of questions that public workers are inclined to ask about their plan, such as whether the full required contributions are being paid or whether the plan's investments are earning as much as the plan assumes they will.
[20] We use the term "should" related to variance in how public employees value aspects of their benefits based on a rational assessment of plan provisions. In practice, we recognize that the actual preferences of public workers may not always align with an academic framework on their decision making, whether because of personal choices or a lack of full understanding of how their retirement benefits work.
[21] We assume that individuals deep into their career will already be eligible for their benefits and should not care as much about vesting rules as they might the adequacy of the benefit and any COLAs that improve the quality of the benefit over time. Conversely, individuals just starting their careers should put a premium on the eligibility and flexibility rules, not yet knowing what their long-term career prospects are in public service.
[22] These individuals might be early on in their career (*e.g.*, starting at age 25 and building some experience before moving on to other work or changing career paths as life experience alters their priorities). Or they might be making a midcareer change (*e.g.*, starting at age 40, shifting into a public service job from the private sector). Individuals in this stage will care less about the COLA rules on the benefits that they won't be able to draw for decades down the road.

- **Medium-Term Workers (MTW):** An individual who works for a public sector employer(s) participating in the same retirement plan between 10 and 20 years of service. They should care about the adequacy of benefits and whether those benefits will be inflation adjusted, and they should also be interested in how flexibility rules might shape whether they should roll their retirement savings to another employer-sponsored plan.[23]

- **Full Career Workers (FCW):** An individual who works their entire career for a public sector employer(s) participating in the same retirement plan. These individuals should care primarily about the adequacy of benefits and inflation adjustment of their retirement income. Rules related to eligibility and flexibility are unlikely to determine in any degree whether their retirement plan is serving them well.[24]

The boxes drawn around these three types of workers — STWs, MTWs, and FCWs — are based on the typical turnover pattern assumed by public pension plans.

STARTING AGE CONSIDERATIONS

The different retirement considerations of STWs, MTWs, and FCWs mean an effective assessment will include measurement of "retirement security" in a way that emphasizes these different needs at each respective stage of a public worker's career. At the same time, there is variance in how retirement security scores can be understood depending on how old an individual is when they are enrolled in a retirement plan.

Therefore, our modeling approach not only provides separate scores based on "entry age" (*i.e.*, age at hire) for 25-year-old hires and 40-year-old hires, but it also assumes that the latter entrant brings with them the full value of retirement savings that our adequacy threshold model says they should have up to that point.

ELEMENTS INCLUDED IN RSR RETIREMENT BENEFITS SCORES

As previously noted, Retirement Benefits Scores are broken down into scores for "Eligibility," "Adequacy," and "Flexibility and Mobility". The application of these varies depending on if we are measuring a STW, MTW, or FCW. But they are consistently used for both 25-year-old and 40-year-old measurements on entry age (see Appendix B for complete scoring methodology).

- **Eligibility** – how long it takes a worker to be fully vested in their retirement plan.[25] These are applicable to all plan types but are only included in the scores and assessments for STWs.
- **Adequacy** – how benefits stack up against the accumulation pattern to reach a 70% pre-retirement income replacement rate by age 67. For STWs and MCWs, we score retirement plans based on how closely they are tracking a path to adequate retirement benefits.[26] For FCWs, we use the value of their retirement plan at age 67. We compare the replacement rate earned at that age to the adequacy target reduced to reflect any eligible SSI at that point.[27] We also grade whether a plan offers COLAs (*i.e.*, only for MTWs and FCWs).
- **Flexibility & Mobility** – the measurements for this category vary depending on the retirement plan type. For pension and hybrid plans, we grade the refunding policy on member contributions, plus the interest crediting rate.[28] 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 GR plans, we grade the mobility of employer contributions in part on the size of the investment return guarantee offered.

[23] These individuals have put in up to half of their career in public service but might move to another state (shifting to another retirement system even if they stay in the profession), leave public service because of a change in family situation, or desire a mid-career change (either out of public service, for those hired at age 25, or into public service, for those hired at age 40). These individuals should have already qualified to receive benefits and may or may not want to leave their money in the retirement plan upon leaving for another job or moving across state lines.
[24] In a purely technical sense, this includes individuals who work more than 20 years of service. We measure the value of retirement plans at age 67, even though a specific plan's "normal retirement" age might be defined earlier (often between 60 and 65). This approach encompasses anyone who works until they qualify for an unreduced, "normal" benefit and it aligns with eligibility for Social Security (see Appendix C from "The National Landscape State Retirement Benefits" report for more details).
[25] Retirement plan members want to know when they will be vested into their benefits. There is no formal set of vesting rule guidelines for state retirement systems but there is for private sector plans. We use the federal standards for private sector retirement plans (known as ERISA), which specify that employees should be 100% vested after five years of service (though private plans could use a shorter period).
[26] Frist, we draw a line that showing a steady/even path to a 70% replacement-rate target. Second, we project the value of the state retirement plan. Finally, we compare the two lines and score the plan based on how close they are to the adequacy target line.
[27] Several of the pension plans measured in the RSR allow individuals to start collecting unreduced retirement checks earlier than age 67. For the purposes of the RSR, we measure the value of their benefits as if the individuals waited until age 67, which effectively raises the value of those retirement plans since they accumulate additional years of service beyond their plan's "normal" retirement age.
[28] In this respect, the more generous the refunding and crediting rate provisions, the more portable the employer-funded share of the benefit is for an individual.

ELEMENTS INCLUDED IN RSR PLAN SUSTAINABILITY SCORES

We approach plan sustainability from the perspective of plan members and pose questions related to the overall stability of the plan and consistency of funding to support future benefits.[29] Therefore, we consider the following four areas:

- **Is the plan on a path to full funding?** We measure the number of years a retirement plan has in its "amortization schedule" until it is projected to reach a 100% funded ratio (using the retirement plan's own funding policy).[30]
- **Are government employers paying their bills?** We measure the share of "actuarially determined employer contributions" that actually get paid each year.
- **Are the plan's investments earning what they should?** We measure whether the retirement plan is earning the necessary investment revenue needed to be sustainable over the long term. Plans whose investments provide sufficient earnings to meet their designated funding assumptions will be more likely to achieve full funding and long-term stability.
- **Does the retirement system board have special tools to manage through tough times?** We consider whether the retirement system has tool available to help balance the sustainability of a fund in case of a sharp economic shock (e.g., risk sharing tools[31]).

[29] DC plans, by inherent nature of their benefit design, are fully sustainable. There are no funding or investment risks related to the employer. There are risks to the individual participant that might influence the value of their benefits and whether they can get to adequacy; but these are not questions about the sustainability of the retirement plan.
[30] While there are very few public retirement systems that are in any near-term danger of becoming insolvent within the next 10 to 15 years, it is still important for plan members to have a clear understanding of the stability behind the retirement benefits they are being guaranteed.
[31] Risk-sharing tools are ways that retirement system trustees and legislatures are able to distribute the gains or costs that might arise related to investment experience, contribution policies, or changes to benefits.

Appendix B: Methodology

Please visit our first edition of "The National Landscape State Retirement Benefits" report, or specifically our Retirement Security Report Methodology for a detailed 16-page appendix that walks through every aspect of our scoring system. Plus, a detailed 9-page appendix on our modeling approach.

To provide transparency, as it is the core of the RSR, we will post the source data files and scripts (in both Stata and R) that were used to produce these benefit estimates and the target thresholds. Those files will be made available both on our website and through GitHub.

Appendix C: Retirement Systems Categories, by State

TABLE C: RETIREMENT SYSTEMS CATEGORIES FOR TEACHERS, BY STATE

State	Retirement System	Category	Teacher Only	
ALABAMA	**Alabama Teachers' Retirement System**	Covers certified K–12 teachers and similarly credential employees	Yes	In Alabama, teachers are a part of the Teachers' Retirement System of Alabama (Alabama TRS). The system was established in 1939.
ALASKA	**Alaska Teachers' Retirement System**	Covers certified K–12 teachers and similarly credential employees	Yes	In Alaska, teachers are a part of the Alaska Teachers' Retirement System (Alaska TRS). TRS is the state's oldest retirement system and was established when Alaska was still a territory.
ARIZONA	**Arizona State Retirement System**	Covers public employees including teachers	No	In Arizona, teachers are a part of the Arizona State Retirement System (ASRS), which includes teachers as well as other public employees. The system was established in 1953 and teachers voted to join two years later.
ARKANSAS	**Arkansas Teachers Retirement System**	Covers certified K–12 teachers and similarly credential employees	Yes	In Arkansas, teachers are a part of the Arkansas Teacher Retirement System (Arkansas TRS). The system was established in 1937 and is the largest public retirement system in the state.
CALIFORNIA	**California State Teachers' Retirement System**	Covers certified K–12 teachers and similarly credential employees	Yes	In California, teachers are a part of the California State Teachers' Retirement System (CalSTRS). The system was established in 1913 and is the largest public retirement system in the state.
COLORADO	**Colorado Public Employee Retirement Association – Schools Division Fund**	Covers public employees including teachers	Yes	In Colorado, teachers are a part of the Colorado Public Employees' Retirement Association (PERA), which includes teachers as well as other public employees. However, Colorado PERA manages divisions that allow reporting for the teacher-only portion of the plan, the Schools Division Fund. The system was established in 1931 and is the largest public retirement system in the state.
	Colorado Public Employee Retirement Association – Denver Public Schools Fund	Covers public school employees	Yes	The Denver Public Schools (DPS) Division, for Denver public schools employees, reports contributions and member information to Colorado PERA.

State	Retirement System	Category	Teacher Only	
CONNECTICUT	Connecticut Teachers' Retirement System	Covers certified K–12 teachers and similarly credential employees	Yes	In Connecticut, teachers are a part of the Connecticut Teachers' Retirement System (CTRS). The system was established in 1917 and is the largest public retirement system in the state.
	Hartford Municipal Employees' Retirement Fund	Covers public employees including teachers	No	In the City of Hartford, Connecticut, teachers are a part of the Municipal Employees' Retirement Fund (MERF), which includes teachers as well as other public employees. The fund was established in 1947.
DELAWARE	Delaware Public Employees' Retirement System	Covers public employees including teachers	No	In Delaware, teachers are a part of the Delaware Public Employees' Retirement System (DPERS), which includes teachers as well as other state employers such as the Department of Public Education, School Districts' part of the State School System, and other Departments. The system was established in 1970 and is the largest public retirement system in the state.
DISTRICT OF COLUMBIA	District of Columbia Teachers' Retirement Fund	Covers public school employees	Yes	Teachers and other educational employees, including principals, librarians, psychologists, social workers, and counselors employed by the District of Columbia Public Schools are automatically enrolled in the District of Columbia Teachers' Retirement Plan.
FLORIDA	Florida Retirement System	Covers public employees including teachers	No	In Florida, teachers are a part of the Florida Retirement System (FRS), which includes teachers as well as other public employees. The system was formed in 1970.
GEORGIA	Georgia Teachers Retirement System	Covers certified K–12 teachers and similarly credential employees	Yes	In Georgia, teachers are a part of the Teachers Retirement System of Georgia (TRSGA). The system was established in 1943 and is the largest public retirement system in the state.
	Atlanta Board of Education Fund	Covers public school employees	No	In Atlanta, Georgia, most school employees are covered by the state retirement system. However, the Atlanta Board of Education Fund, which is administered by the City of Atlanta General Employees' Pension Fund, covers the minority of school district employees who are not covered under TRSGA.
HAWAII	Employees' Retirement System of the State of Hawaii	Covers public employees including teachers	No	In Hawaii, teachers are a part of the Hawaii Employees' Retirement System (Hawaii ERS), which includes teachers as well as other public employees. The system was established in 1926 and is the largest public retirement system in the state.

State	Retirement System	Category	Teacher Only	
IDAHO	**Public Employee Retirement System of Idaho**	Covers public employees including teachers	No	In Idaho, teachers are a part of the Public Employee Retirement System of Idaho (PERSI), which includes teachers as well as other public employees. The system was established in 1963 and is the largest public retirement system in the state.
ILLINOIS	**Teachers' Retirement System of the State of Illinois**	Covers certified K–12 teachers and similarly credential employees	Yes	In Illinois, teachers are a part of the Teacher's Retirement System of Illinois (Illinois TRS). The system was established in 1939 and is the largest public retirement system in the state.
	Public School Teachers' Pension and Retirement Fund of Chicago	Covers public school employees	Yes	Certain certified teachers and employers of the Chicago Public Schools are part of the Public School Teachers' Pension and Retirement Fund of Chicago (CTPF) since 1895.
INDIANA	**Indiana Public Retirement System**	Covers public employees including teachers	Yes	In Indiana, teachers are a part of the Indiana Public Retirement System, which includes teachers as well as other public employees (INPRS). However, the system manages divisions that allow reporting for the teacher-only portion of the plan, the Indiana State Teachers' Retirement Fund (TRF). TRF was established in 1921.
IOWA	**Iowa Public Employees' Retirement System**	Covers public employees including teachers	No	In Iowa, teachers are a part of the Iowa Public Employees' Retirement System (IPERS), which includes teachers as well as other public employees. The system was established in 1953 and is the largest public retirement system in the state.
KANSAS	**Kansas Public Employees Retirement System**	Covers public employees including teachers	Yes	In Kansas, teachers are a part of the Kansas Public Employees Retirement System (KPERS), which includes teachers as well as other public employees. However, the system manages divisions that allow reporting for the teacher-only portion of the plan. The KPERS system was established in 1962.
KENTUCKY	**Teachers' Retirement System of Kentucky**	Covers certified K–12 teachers and similarly credential employees	Yes	In Kentucky, teachers are a part of the Teachers' Retirement System of Kentucky (KTRS). The system was established in 1938 and is the largest public retirement system in the state.
LOUISIANA	**Louisiana School Employees' Retirement System**	Covers public school employees	No	In Louisiana, personnel of the Louisiana public school system are part of the Louisiana School Employees' Retirement System (LSERS) established in 1947.

State	Retirement System	Category	Teacher Only	
	Louisiana Teachers' Retirement System	Covers certified K–12 teachers and similarly credential employees	Yes	In Louisiana, teachers are a part of the Teachers' Retirement System of Louisiana (TRSL). The system was established in 1936 and is the largest public retirement system in the state.
MAINE	Maine Public Employees Retirement System	Covers public employees including teachers	No	In Maine, teachers are a part of the Maine Public Employee Retirement System (MPERS), which includes teachers as well as other public employees. The system was established in 1942 and is the largest public retirement system in the state.
MARYLAND	Maryland State Retirement and Pension System	Covers public employees including teachers	No	In Maryland, teachers are a part of the Maryland State Retirement and Pension System (SRPS), which includes teachers as well as other public employees. The system was formed in 1982 from several other retirement funds and is the largest public retirement system in the state.
MASSACHUSETTS	Massachusetts Teachers' Retirement System	Covers certified K–12 teachers and similarly credential employees	Yes	In Massachusetts, teachers are a part of the Massachusetts Teachers' Retirement System (MTRS). The system was established in 1936 and is the largest public retirement system in the state.
MICHIGAN	Michigan Public School Employees Retirement System	Covers public school employees	No	In Michigan, teachers are part of the Michigan Public School Employees Retirement System (MPSERS), which includes teachers as well as other public school workers. The MPSERS was founded in 1945.
MINNESOTA	Minnesota Teachers Retirement Association	Covers certified K–12 teachers and similarly credential employees	Yes	In Minnesota, teachers are a part of the Minnesota Teachers Retirement Association (TRA). The system was established in 1931 and is the largest public retirement system in the state.
	St. Paul Teachers Retirement Fund	Covers certified K–12 teachers and similarly credential employees	Yes	St. Paul Teachers Retirement Fund (SPTRF) is a retirement plan for teachers and other licensed administrators in St. Paul Public Schools, stablished in 1909.
MISSISSIPPI	Public Employees' Retirement System of Mississippi	Covers public employees including teachers		In Mississippi, teachers are a part of the Public Employees' Retirement System of Mississippi (Mississippi PERS), which includes teachers as well as other public employees. Mississippi PERS was established in 1952.

State	Retirement System	Category	Teacher Only	
MISSOURI	**Public School and Education Employee Retirement Systems of Missouri – Missouri Public Education Employees' Retirement System (PEERS)**	Covers public school employees	No	The Missouri Public Education Employee Retirement System (PEERS), the system for non-certificated public school personnel, was established in 2005.
	Public School and Education Employee Retirement Systems of Missouri – Missouri Public School Retirement System (PSRS)	Covers certified K–12 teachers and similarly credential employees	Yes	In Missouri, teachers are a part of the Public School and Education Employee Retirement Systems. The Missouri Public School Retirement System (PSRS), the system specifically for teachers, was established in 1946.
	Kansas City Public School Retirement System	Covers public school employees	Yes	In Kansas City, Missouri, teachers are a part of the Kansas City Public School Retirement System (KCPSRS), which includes teachers as well as other public school workers. KCPSRS was established in 1944.
	Public School Retirement System of St. Louis	Covers public school employees	Yes	In the City of St. Louis, Missouri, teachers are a part of the Public School Retirement System of the City of St. Louis (PSRSSTL), which includes teachers as well as other public school workers. PSRSSTL was established in 1944.
MONTANA	**Montana Teachers' Retirement System**	Covers certified K–12 teachers and similarly credential employees	Yes	In Montana, teachers are a part of the Montana Teachers' Retirement System (TRS). Montana TRS was established in 1937.
NEBRASKA	**Nebraska Public Employees Retirement Systems**	Covers public school employees	Yes	In Nebraska, the Nebraska Public Employees Retirement Systems (NPERS) administers several statewide retirement systems., which include the Nebraska School Retirement System (NSERS). Teachers are a part of the NSERS, which includes teachers as well as other public school workers. The NSERS was established in 1945.
NEVADA	**Public Employees' Retirement System of Nevada**	Covers public employees including teachers	No	In Nevada, teachers are a part of the Nevada Public Employees' Retirement System (NVPERS), which includes teachers as well as other public employees. The NVPERS was established in 1947.
NEW HAMPSHIRE	**New Hampshire Retirement System**	Covers public employees including teachers	No	In New Hampshire, teachers are a part of the New Hampshire Retirement System (NHRS), which includes teachers as well as other public employees. The plan was established in 1967 to consolidate and replace four separate pension plan systems, including the New Hampshire Teachers' Retirement System.

State	Retirement System	Category	Teacher Only	
NEW JERSEY	**New Jersey Teachers' Pension & Annuity Fund**	Covers certified K–12 teachers and similarly credential employees	Yes	In New Jersey, teachers are a part of the New Jersey Teachers' Pension and Annuity Fund (NJTPAF). The NJTPAF was established in 1919.
NEW MEXICO	**New Mexico Educational Retirement Board**	Covers public school employees	Yes	In New Mexico, teachers are a part of the New Mexico Educational Retirement Board (NMERB), which includes teachers as well as other employees of the State of New Mexico's public schools, institutions of higher learning, and state agencies providing educational programs. The NMERB was established in 1925.
NEW YORK	**New York State Teachers' Retirement System**	Covers certified K–12 teachers and similarly credential employees	Yes	In New York, teachers are a part of the New York State Teachers' Retirement System (NYSTRS). The system was formed in 1921.
	New York City Teachers Retirement System	Covers certified K–12 teachers and similarly credential employees	Yes	New York City teachers participate in a system strictly for educators in the city, the Teachers' Retirement System of the City of New York (TRSNYC). The TRSNYC was established in 1917.
NORTH CAROLINA	**North Carolina Teachers' and State Employees' Retirement System**	Covers public employees including teachers	No	In North Carolina, teachers are a part of the North Carolina Teachers' and State Employees' Retirement System (North Carolina TSERS), which includes teachers as well as other public employees. North Carolina TSERS was established in 1941.
NORTH DAKOTA	**North Dakota Teachers' Fund for Retirement**	Covers certified K–12 teachers and similarly credential employees	Yes	In North Dakota, teachers are a part of the North Dakota Teachers' Retirement Fund (TFR). North Dakota's TFR was established in 1913.
OHIO	**State Teachers Retirement System of Ohio**	Covers certified K–12 teachers and similarly credential employees	Yes	In Ohio, teachers are a part of the State Teachers Retirement System of Ohio (STRS Ohio). The system was established in 1920 and is the largest public retirement system in the state.
OKLAHOMA	**Teachers' Retirement System of Oklahoma**	Covers certified K–12 teachers and similarly credential employees	Yes	In Oklahoma, teachers are a part of the Teachers' Retirement System of Oklahoma (Oklahoma TRS). The Oklahoma TRS was established in 1943 and is the largest public retirement system in the state.

State	Retirement System	Category	Teacher Only	
OREGON	**Oregon Public Employees Retirement System**	Covers public employees including teachers	No	In Oregon, teachers are a part of the Oregon Public Employees Retirement System (Oregon PERS), which includes teachers as well as other public employees. The system was established in 1946.
PENNSYLVANIA	**Pennsylvania Public School Employees' Retirement System**	Covers public school employees	No	In Pennsylvania, teachers are a part of the Pennsylvania Public School Employees' Retirement System (PSERS), which includes teachers as well as other public school employees of the Commonwealth of Pennsylvania. The system was established in 1917 and is the largest public retirement system in the state.
RHODE ISLAND	**Employees' Retirement System of Rhode Island**	Covers public employees including teachers	No	In Rhode Island, teachers are a part of the Employees' Retirement System of Rhode Island (ERSRI), which includes teachers as well as other public employees. The system was established in 1936.
SOUTH CAROLINA	**South Carolina Retirement System**	Covers public employees including teachers	No	In South Carolina, teachers are a part of the South Carolina Public Employee Benefit Authority (PEBA), which includes teachers as well as other public employees. The system was established in 1945.
SOUTH DAKOTA	**South Dakota Retirement System**	Covers public employees including teachers	No	In South Dakota, teachers are a part of the South Dakota Retirement System (SDRS), which includes teachers as well as other public employees. The system was established in 1974.
TENNESSEE	**Tennessee Consolidated Retirement System**	Covers public employees including teachers	No	In Tennessee, teachers are a part of the Tennessee Consolidated Retirement System (TCRS), which includes teachers as well as other public employees. The system was established in 1972 with the consolidation of seven separate retirement systems for state employees, including public school teachers.
TEXAS	**Texas Teachers Retirement System**	Covers public school employees	Yes	In Texas, teachers are a part of the Texas Teacher Retirement System (Texas TRS), which includes teachers as well as other public school employees. The Texas TRS was established in 1937.
UTAH	**Utah Retirement System**	Covers public employees including teachers	Yes	In Utah, teachers are a part of the Utah Retirement System (URS), which includes teachers as well as other public employees. The URS was founded in 1963.

State	Retirement System	Category	Teacher Only	
VERMONT	**Vermont State Teachers' Retirement System**	Covers certified K–12 teachers and similarly credential employees	Yes	In Vermont, teachers are a part of the Vermont State Teachers' Retirement System (VSTS). VSTRS was established in 1947.
VIRGINIA	**Virginia Retirement System**	Covers public employees including teachers	Yes	In Virginia, teachers are a part of the Virginia Retirement System, which includes teachers as well as other public employees. The VRS was established in 1942.
	Educational Employees' Supplementary Retirement System of Fairfax County	Covers public school employees	Yes	The Educational Employees' Supplementary Retirement System of Fairfax County (ERFC) provides an independent retirement plan for Fairfax County Public Schools' personnel that supplements the primary benefits they earn and receive separately from the Virginia Retirement System (VRS), which includes teachers as well as other public school employees. The system was established in 1973.
WASHINGTON	**Washington School Employees' Retirement System**	Covers public school employees	Yes	The Washington School Employees' Retirement System (SERS), created in 1998, include classified employees of school districts and educational service districts.
	Washington Teachers' Retirement System	Covers certified K–12 teachers and similarly credential employees	Yes	In Washington, teachers are a part of the Teachers' Retirement System (Washington TRS). The TRS was established in 1938.
WEST VIRGINIA	**West Virginia Teachers Retirement System**	Covers certified K–12 teachers and similarly credential employees	Yes	In West Virginia, teachers are a part of the West Virginia Teachers' Retirement System (WVTRS). The WVTRS was formed in 1941.
WISCONSIN	**Wisconsin Retirement System**	Covers public employees including teachers	No	In Wisconsin, teachers are a part of the Wisconsin Retirement System (WRS), which includes teachers as well as other public employees. The WRS was established in 1937.
WYOMING	**Wyoming Retirement System**	Covers public employees including teachers	No	In Wyoming, teachers are a part of the Wyoming Retirement System (WRS), which includes teachers as well as other public employees. The WRS was formed in 1953.

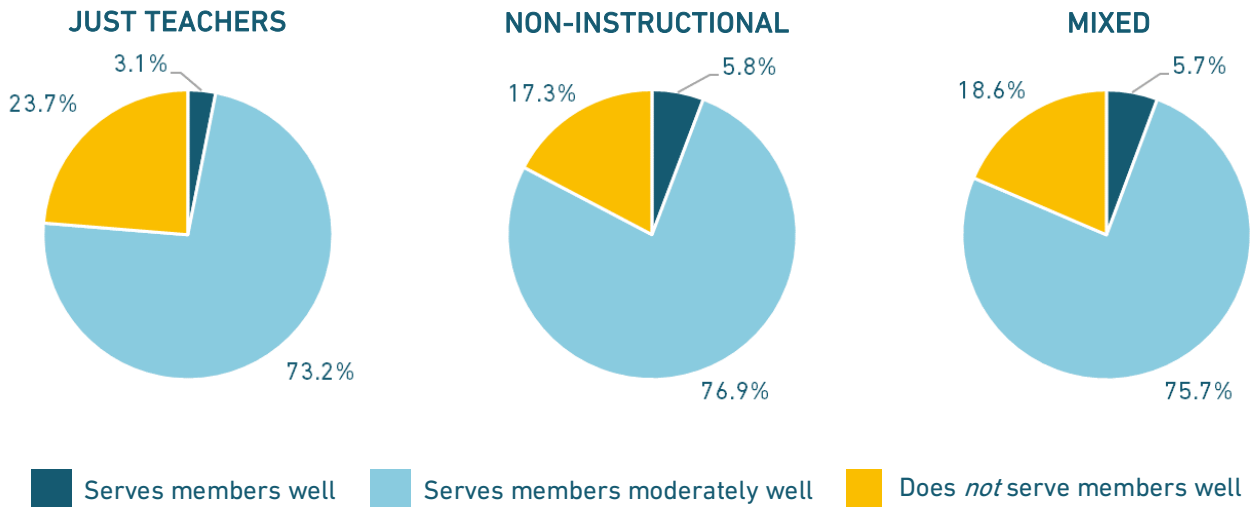
Appendix D: Comparing Teacher Benefits with Public School Employee Benefits

Retirement systems that cover teacher differ across states and localities. Certified K–12 teachers and similarly credentialed employees tend to be covered by plans that separate them from other types of employees in some retirement systems but they are lumped together with other public employees in others. For example, teachers are included as part of a retirement system which includes not only teachers but other public school employees (*e.g.*, Michigan Public School Employees Retirement System, or Texas Teachers Retirement System), or all state employees (e.g., The Florida Retirement System, or South Carolina Retirement System). Furthermore, there are a few statewide systems that serve a range of public employees but report out separate data for a special division or benefit plan that is specific to teachers and public school employees (e.g., Colorado Public Employee Retirement Association – Schools Division Fund).

Our analysis considers 194 benefit classes that are "just for teachers" (typically defined as certified to be in a classroom), 52 benefit classes are explicitly for "non-instructional staff," and 70 benefit classes are for a "mix" of teachers and non-classroom public school employees.

The figure below shows a breakout of Retirement Benefits Scores (averaging across all three worker profiles and both entry ages) across these three divisions of the 316 benefit classes.

FIGURE D: BREAKDOWN OF EQUABLE'S ASSESSMENT ON HOW WELL A PLAN SERVES, AVERAGED ACROSS ALL TYPES



Across all teacher retirement benefit classes that serve members well, 46.2% (6 of the 13 benefit tiers) are just for teachers, 23.1% (3 of the 13 tiers) are for non-instructional staff, and 30.8% (4 of the 13 tiers) are mixed. For the same groups, the share that serve members moderately well is 60.4% (142 of the 235 tiers) just for teachers, 17% (40 of the 235 tiers) for non-instructional staff, and 22.6% (53 of the 235 tiers) for the mixed group.[32]

There are some limits to this high-level analysis (primarily due to the worker profile averaging and blending of plan designs), but from this perspective both the non-instructional and mixed groups are being served slightly better than the plans that serve just teachers, with 5.8% of non-instructional plans and 5.7% of mixed plans serving all members well, in contrast to the only 3.1% of plans for just teachers. However, while fewer plans for just teachers serve all their members well, they do tend to perform better overall, with 26.8% of the benefit tiers serving members well or moderately well, while only 23.1% of non-instructional plans and 24.3% of mixed plans reaching those same thresholds.

Tables D.1 through D.3 on the next pages show the best- and worst-performing classes of benefits for teacher-only plans, non-instructional employee plans, and just mixed plans that cover both teachers and other public employees.

[32] Among the 52 non-instructional only plans: none serve STW-Teachers well (five plans serve STW-Teachers moderately well); one plan serves MTW-Teachers well (CalPERS Safety Public Agency Schools); and 41 serve FCW-Teachers well.

TABLE D.1: BEST- AND WORST-PERFORMING TEACHER-ONLY PLANS, AVERAGED ACROSS ALL TYPES

Rank	Plan	Benefit Class/Tier	Plan Type	Benefits Score
1	**Employees' Retirement System of the State of Hawaii**	ERSHI Teachers Pre-2012*	Hybrid	79.2%
2	**Washington Teachers' Retirement System – Plan 1**	WA TRS Plan 1 Pension*	Pension	77.6%
3	**New York City Teachers Retirement System**	NY NYC Teachers Tier 2*	Pension	75.7%
4	**New York City Teachers Retirement System**	NY NYC Teachers Tier 1*	Pension	75.4%
5	**Michigan Public School Employees' Retirement System – Defined Contribution Plan**	MPSERS DC Teachers	DC Plan	75.3%
6	**Employees' Retirement System of the State of Hawaii**	ERSHI Teachers Pre-1984*	Pension	75.1%
7	**Employees' Retirement System of the State of Hawaii**	ERSHI Teachers Pre-1971	Pension	74.7%
8	**Washington Teachers' Retirement System – Plan 2**	WA TRS Plan 2 Pension	Pension	74.4%
9	**New York City Teachers Retirement System**	NY NYC Teachers Tier 4*[33]	Pension	74.2%
11	**Employees' Retirement System of Rhode Island – Teachers**	RI ERSRI Teachers Schedule B2 Non-SSA	Hybrid	73.9%
176	**California State Teachers' Retirement System**	CalSTRS GR Option[34]	GR Plan	44.2%
177	**Texas Teachers Retirement System**	TX TRE Tier 4*	Pension	43.9%
178	**Illinois State Teachers' Retirement System**	IL TRS Tier 2	Pension	43.8%
179	**Texas Teachers Retirement System**	TX TRS Tier 3*[35]	Pension	43.3%
181	**Employees' Retirement System of Rhode Island – Teachers**	RI ERSHI Teachers Schedule B1NE Non-SSA*[36]	Hybrid	42.3%
187	**Texas Teachers Retirement System**	TX TRS Tier 2*	Pension	41.9%
188	**Employees' Retirement System of the State of Hawaii**	ERSHI Teachers Pre-2006*	Pension	41.2%
189	**Michigan Public School Employees Retirement System – Legacy Plan**	MPSERS Pension Teachers Basic*	Pension	39.9%
190	**Louisiana Teachers' Retirement System**	TRSL Teachers Post-2015	Pension	33.8%
191	**Louisiana Teachers' Retirement System**	TRSL Teachers Pre-2011*[37]	Pension	33.8%

Note: Score shown is the average percentage of available "Retirement Benefits Score" points earned by the plan. * indicates a legacy plan.

[33] NY NYC Teachers Tier 3 and Tier 4 have identical scores so we only report Tier 4 in the table.
[34] CalSTRS GR Option is available to certificated part-time teachers and is not intended to provide a full retirement benefit.
[35] TX TRS Tier 1 also scores similarly with 42.6%.
[36] There are six legacy ERSRI plans that all have identical scores: Schedule ABE Non-SSA, Schedule B1E Non-SSA, Schedule B Non-SSA, Schedule A Non-SSA, Schedule ABNE Non-SSA, and Schedule B1NE Non-SSA.
[37] There are three legacy TRSL plans that all score roughly the same or worse. TRSL Teachers Pre-1999 (27.3%), TRSL Teachers Pre-2015 (32.9%) and TRSL Teachers Pre-2011 (33.8%).

TABLE D.2: BEST- AND WORST-PERFORMING NON-INSTRUCTIONAL EMPLOYEE PLANS, AVERAGED ACROSS ALL TYPES

Rank	Plan	Benefit Class/Tier	Plan Type	Benefits Score
1	**California Public Employees Retirement Fund**	CalPERS Safety Public Agency Schools	Pension	75.8%
2	**Michigan Public School Employees' Retirement System – Defined Contribution Plan**	MPSERS DC Non-Instructional	DC Plan	75.3%
3	**South Dakota Retirement System – Foundation Plan**	SD RS School Safety Class B – Before 2021*[38]	Pension	75.2%
6	**New York City Board of Education Retirement System**	NY NYC Ed Board Pre-2012 Special Officers*[39]	Pension	70.8%
9	**Arkansas Teacher Retirement System**	AR TRS Non-Instructional	Pension	68.6%
10	**New York City Board of Education Retirement System**	NY NYC Ed Board Pre-2012 C96 57-5 PT Plan*[40]	Pension	67.7%
16	**New York City Board of Education Retirement System**	NY NYC Ed Board Special Officers[41]	Pension	66.3%
18	**New York City Board of Education Retirement System**	NY NYC Ed Board Pre-2012 C504 Plan*	Pension	64.6%
19	**Hartford Municipal Employees' Retirement Fund**	CT Hartford Ed Board – HESP	Pension	64.1%
20	**Michigan Public School Employees' Retirement System – Pension Plus Plan 2**	MPSERS Pension Plus 2 Non-Instructional	Hybrid	62.6%
40	**California Public Employees Retirement Fund**	CalPERS Schools PEPRA[42]	Pension	50.9%
42	**California Public Employees Retirement Fund**	CalPERS Schools Tier 1 Pre-2013*[43]	Pension	50.2%
44	**West Virginia Teachers' Retirement System**	WV TRS Tier 2 General	Pension	48.3%
45	**Louisiana TRS Lunch Plan B**	TRSL Lunch Plan B Pre-1999*[44]	Pension	46.7%
47	**Atlanta Board of Education Fund**	GA Atlanta Ed Board Post-2011	Pension	41.0%
48	**Ohio School Employees Retirement System**	OH SERS U25-2017	Pension	40.9%
49	**Louisiana TRS Lunch Plan A**	TRSL Lunch Plan A	Pension	39.8%
50	**Ohio School Employees Retirement System**	OH SERS O25-2017	Pension	39.4%
51	**Louisiana School Employees' Retirement System**	LA Schools	Pension	36.4%
52	**Louisiana TRS Lunch Plan B**	TRSL Lunch Plan B	Pension	28.2%

Note: Score shown is the average percentage of available "Retirement Benefits Score" points earned by the plan. * indicates a legacy plan.

[38] There are three legacy plans in the South Dakota RS Foundation Plan that have comparable scores: School Safety Class B – After 2022 (74.4%), School Safety Class B – Before 2022 (75%), and School Safety Class B – Before 2021 (75.2%).
[39] There are three legacy NYC Ed Board plans that have comparable scores: Ed Board Pre-2012 C96 57-5 Plan (69%), Ed Board Pre-2012 Auto Mechanics (70.4%), and Ed Board Pre-2012 Special Officers (70.8%).
[40] There are six legacy NYC Ed Board plans that have comparable scores: Ed Board Pre-2012 62-5 Plan (66.9%), Ed Board Pre-2012 C96 Plan (66.9%), Ed Board Pre-2012 C19 Plan (66.9%), Ed Board Pre-2012 C19 57-5 Plan (66.9%), Ed Board Pre-2012 C96 PT Plan (67.7%), and Ed Board Pre-2012 C96 57-5 PT Plan (67.7%).
[41] There are two NYC Ed Board plans currently available to new hires with comparable scores: Ed Board Auto Mechanics (65.5%), and Ed Board Special Officers (66.3%).
[42] There are two CalPERS tiers currently available to new hires with comparable scores: Schools Classic (50.5%) and Schools PEPRA (50.9%).
[43] There are two legacy CalPERS tiers that have identical scores: Schools Tier 1 Pre-2011 and Schools Tier 1 Pre-2013.
[44] There are two legacy TRSL Lunch Plan B plans that have identical scores: Lunch Plan B Pre-1999 and Lunch Plan B Pre-2011.

TABLE D.3: BEST- AND WORST-PERFORMING MIXED PLANS, AVERAGED ACROSS ALL TYPES

Rank	Plan	Benefit Class/Tier	Plan Type	Benefits Score
1	South Carolina Optional Retirement Plan	SC RS Teachers ORP	DC Plan	94.2%
2	Tennessee Teacher Retirement Plan	TN TRP Hybrid	Hybrid	88.2%
3	South Dakota Retirement System – Generational Plan	SD RS Teachers Generational Plan	Hybrid	78.7%
4	Oregon Public Employees' Retirement System – ORSRP	OR PERS School District OPSRP Hybrid	Hybrid	78.6%
5	FRS Investment Plan	FL RS DC Plan Regular K–12	DC Plan	73.7%
6	Maryland State Retirement and Pension System – Teachers' Retirement System	MD SPRS Teachers Plan B*	Pension	73.2%
7	Virginia Teachers Division – Legacy Pension Plan	VRS Teachers Pension Pre-2014*[45]	Pension	72.3%
9	Oregon Public Employees' Retirement System – Legacy Plan	OR PERS School District Pension Tier 2*	Hybrid[46]	71.5%
10	Virginia Teachers Division – Hybrid Plan	VRS Teachers Hybrid	Hybrid	70.7%
11	Tennessee Teacher Legacy Pension Plan	TN TLPP Teacher Pension Group IV Noncontributory*	Pension	68.5%
58	Iowa Public Employees' Retirement System	IPERS Teachers Post-2012	Pension	49.8%
59	Maine Public Employees Retirement System – State Employee and Teacher Program	ME PERS Teachers Pre-2011*	Pension	48.9%
60	Wisconsin Retirement System	WI RS Teachers Terminated-1998*[47]	Pension	48.2%
63	Maine Public Employees Retirement System – State Employee and Teacher Program	ME PERS Teachers Pre-2006*	Pension	48.1%
64	Wisconsin Retirement System	WI RS Teachers Pre-2011*[48]	Pension	48.0%
66	Maine Public Employees Retirement System – State Employee and Teacher Program	ME PERS Teachers Pre-1993*	Pension	47.9%
67	Wisconsin Retirement System	WI RS Teachers Current	Pension	46.1%
68	Utah Public Employees Contributory Retirement System – Tier 2 Defined Contribution Plan	UT Teacher Tier 2 DC	DC Plan	41.3%
69	FRS Defined Benefit Plan	FL RS Pension Regular K–12 Post-2011	Pension	36.1%
70	FRS Defined Benefit Plan	FL RS Pension Regular K–12 Pre-2011*	Pension	32.8%

Note: Score shown is the average percentage of available "Retirement Benefits Score" points earned by the plan. * indicates a legacy plan.

[45] There are two legacy VRS Teacher plans that have identical scores: Teachers Pension Pre-2010 and Teachers Pension Pre-2014.
[46] OR PERS has three tiers that are all technically hybrid plans when you include the IAP element. In order to differentiate between Tiers 1 and 2 we do not include the IAP element for Tier 1 but do include the IAP for Tier 2. As a result, Tier 2, while having "pension" in its name, is technically a hybrid plan that includes the IAP provisions (a DC plan). OPSRP is a pure hybrid plan, and it is modeled as such.
[47] There are three legacy WI RS plans that have identical scores: Teachers Terminated-1989, Teachers Terminated-1990, and Teachers Terminated-1998.
[48] There are two legacy WI RS plans that have identical scores: Teachers Terminated-2011 and Teachers Pre-2011.

Appendix E: Ranking All Benefit Tiers

Please visit https://equable.org/retirement-security-report-methodology-and-open-source-data/ to see a complete list of plans in our data set, including information about the partn system, plan type, additional occupations covered, Retirement Benefits Scores for all three worker types at both starting ages, and Plan Sustainability Score.

TABLE E: RANKING OF BENEFIT TIERS, AVERAGED ACROSS ALL WORKER PROFILES (I.E., STW, MTW, & FCW-TEACHERS)

Rank	Plan	Benefit Class/Tier	Plan Type	SSA Eligible	Benefits Score
1	South Carolina Optional Retirement Plan	SC RS Teachers ORP	DC Plan	SSA	94.2%
2	Tennessee Teacher Retirement Plan	TN TRP Hybrid	Hybrid	SSA	88.2%
3	Employees' Retirement System of the State of Hawaii	ERSHI Teachers Pre-2012*	Hybrid	SSA	79.2%
4	South Dakota Retirement System – Generational Plan	SD RS Teachers Generational Plan	Hybrid	SSA	78.7%
5	Oregon Public Employees' Retirement System – ORSR Plan	OR PERS School District OPSRP Hybrid	Hybrid	SSA	78.6%
6	Washington Teachers' Retirement System – Plan 1	WA TRS Plan 1 Pension*	Pension	SSA	77.6%
7	California Public Employees Retirement Fund	CalPERS Safety Public Agency Schools	Pension	Mixed	75.8%
8	New York City Teachers Retirement System	NY NYC Teachers Tier 2*	Pension	SSA	75.7%
9	New York City Teachers Retirement System	NY NYC Teachers Tier 1*	Pension	SSA	75.4%
10	Michigan Public School Employees' Retirement System – Defined Contribution Plan	MPSERS DC Teachers	DC Plan	SSA	75.3%
11	Michigan Public School Employees' Retirement System – Defined Contribution Plan	MPSERS DC Non-Instructional	DC Plan	SSA	75.3%
12	South Dakota Retirement System – Foundation Plan	SD RS School Safety Class B - Before 2021*	Pension	SSA	75.2%
13	Employees' Retirement System of the State of Hawaii	ERSHI Teachers Pre-1984*	Pension	SSA	75.1%
14	South Dakota Retirement System – Foundation Plan	SD RS School Safety Class B - Before 2022*	Pension	SSA	75.0%
15	Employees' Retirement System of the State of Hawaii	ERSHI Teachers Pre-1971*	Pension	SSA	74.7%
16	South Dakota Retirement System – Foundation Plan	SD RS School Safety Class B - After 2022*	Pension	SSA	74.4%
17	Washington Teachers' Retirement System – Plan 2	WA TRS Plan 2 Pension	Pension	SSA	74.4%
18	New York City Teachers Retirement System	NY NYC Teachers Tier 4*	Pension	SSA	74.2%
19	New York City Teachers Retirement System	NY NYC Teachers Tier 3*	Pension	SSA	74.2%
20	Employees' Retirement System of Rhode Island – Teachers	RI ERSRI Teachers Schedule B2 Non-SSA	Hybrid	Non-SSA	73.9%
21	Florida Retirement System – Investment Plan	FL RS DC Plan Regular K–12	DC Plan	SSA	73.7%

22	Maryland State Retirement and Pension System – Teachers' Retirement System	MD SPRS Teachers Plan B*	Pension	SSA	73.2%
23	Virginia Teachers Division – Legacy Pension Plan	VRS Teachers Pension Pre-2010*	Pension	SSA	72.3%
24	Virginia Teachers Division – Legacy Pension Plan	VRS Teachers Pension Pre-2014*	Pension	SSA	72.3%
25	North Dakota Teachers' Fund for Retirement	ND Teachers Pre-2008 - U55-2013*	Pension	SSA	72.2%
26	North Dakota Teachers' Fund for Retirement	ND Teachers Pre-2008 - O55-2013*	Pension	SSA	72.2%
27	New York State Teachers' Retirement System	NY STRS Tier 1 Non-Contributory*	Pension	SSA	72.0%
28	Oklahoma Teachers' Retirement System	OK TRS Pre-1992 Low*	Pension	SSA	71.9%
29	Oklahoma Teachers' Retirement System	OK TRS Pre-1979 Low*	Pension	SSA	71.9%
30	Oklahoma Teachers' Retirement System	OK TRS Pre-1979 High*	Pension	SSA	71.9%
31	Oklahoma Teachers' Retirement System	OK TRS Pre-1992 High*	Pension	SSA	71.9%
32	Vermont State Teachers' Retirement System	VT STRS Group A*	Pension	SSA	71.8%
33	Oklahoma Teachers' Retirement System	OK TRS Pre-1995 K–12 High*	Pension	SSA	71.7%
34	Oklahoma Teachers' Retirement System	OK TRS Pre-1995 K–12 Low*	Pension	SSA	71.7%
35	Vermont State Teachers' Retirement System	VT STRS Group C Grandfathered*	Pension	SSA	71.7%
36	Oregon Public Employees' Retirement System - Legacy Plan	OR PERS School District Pension Tier 2*	Hybrid	SSA	71.5%
37	New York State Teachers' Retirement System	NY STRS Tier 1 Career Plan*	Pension	SSA	71.4%
38	New York State Teachers' Retirement System	NY STRS Tier 2*	Pension	SSA	71.3%
39	Employees' Retirement System of the State of Hawaii	ERSHI Teachers Hybrid	Hybrid	SSA	71.0%
40	Public Employees' Retirement System of Mississippi	MS PERS Teachers Pre-2007*	Pension	SSA	71.0%
41	New York City Board of Education Retirement System	NY NYC Ed Board Pre-2012 Special Officers*	Pension	SSA	70.8%
42	Virginia Teachers Division – Hybrid Plan	VRS Teachers Hybrid	Hybrid	SSA	70.7%
43	New York State Teachers' Retirement System	NY STRS Tier 4*	Pension	SSA	70.5%
44	New York City Board of Education Retirement System	NY NYC Ed Board Pre-2012 Auto Mechanics*	Pension	SSA	70.4%
45	Washington Teachers' Retirement System – Plan 3	WA TRS Plan 3 Hybrid	Hybrid	SSA	70.4%
46	Alaska Teachers' Retirement System - Defined Contribution Retirement Plan	AK TRS DC	DC Plan	Non-SSA	70.3%
47	North Dakota Teachers' Fund for Retirement	ND Teachers Post-2013	Pension	SSA	70.0%
48	Washington School Employees' Retirement System – Plan 2	WA SERS Plan 2 Pension	Pension	SSA	70.0%

49	Ohio State Teachers Defined Contribution Plan	OH STRS DC	DC Plan	Non-SSA	69.9%
50	New York State Teachers' Retirement System	NY STRS Tier 3*	Pension	SSA	69.7%
51	Vermont State Teachers' Retirement System	VT STRS Group C Current	Pension	SSA	69.7%
52	New York City Teachers Retirement System	NY NYC Teachers Tier 6	Pension	SSA	69.0%
53	New York City Board of Education Retirement System	NY NYC Ed Board Pre-2012 C96 57-5 Plan*	Pension	SSA	69.0%
54	New Mexico Educational Retirement Board	NM ERB Pre-2019 O2K*	Pension	SSA	69.0%
55	Arkansas Teacher Retirement System	AR TRS Non-Instructional	Pension	SSA	68.6%
56	Arkansas Teacher Retirement System	AR TRS Teachers	Pension	SSA	68.6%
57	Tennessee Teacher Legacy Pension Plan	TN TLPP Teacher Pension Group IV Noncontributory*	Pension	SSA	68.5%
58	Maryland State Retirement and Pension System - Teachers' Combined System	MD SPRS Teachers Alternate*	Pension	SSA	68.5%
59	New Mexico Educational Retirement Board	NM ERB Pre-2013 O2K*	Pension	SSA	68.4%
60	New Mexico Educational Retirement Board	NM ERB Pre-2010 O2K*	Pension	SSA	68.4%
61	Public Employees' Retirement System of Mississippi	MS PERS Teachers Pre-2011*	Pension	SSA	68.1%
62	New Mexico Educational Retirement Board	NM ERB Pre-2010 U2K*	Pension	SSA	68.0%
63	New Mexico Educational Retirement Board	NM ERB Pre-2013 U2K*	Pension	SSA	68.0%
64	New Mexico Educational Retirement Board	NM ERB Pre-2019 U2K*	Pension	SSA	68.0%
65	Educational Employees' Supplementary Retirement System of Fairfax County	VA EESRS Pre-2001*	Pension	SSA	67.7%
66	New York City Board of Education Retirement System	NY NYC Ed Board Pre-2012 C96 PT Plan*	Pension	SSA	67.7%
67	New York City Board of Education Retirement System	NY NYC Ed Board Pre-2012 C96 57-5 PT Plan*	Pension	SSA	67.7%
68	Utah Public Employees Contributory Retirement System – Tier 2 Hybrid Retirement System	UT Teacher Tier 2 Hybrid	Hybrid	Mixed	67.5%
69	Maryland State Retirement and Pension System - Teachers' Retirement System	MD SPRS Teachers Plan C*	Pension	SSA	67.3%
70	Educational Employees' Supplementary Retirement System of Fairfax County	VA EESRS Pre-1988*	Pension	SSA	66.9%
71	New York City Board of Education Retirement System	NY NYC Ed Board Pre-2012 C19 57-5 Plan*	Pension	SSA	66.9%
72	New York City Board of Education Retirement System	NY NYC Ed Board Pre-2012 C96 Plan*	Pension	SSA	66.9%
73	New York City Board of Education Retirement System	NY NYC Ed Board Pre-2012 C19 Plan*	Pension	SSA	66.9%
74	New York City Board of Education Retirement System	NY NYC Ed Board Pre-2012 62-5 Plan*	Pension	SSA	66.8%
75	Missouri Public Education Employees' Retirement System	MO PEERS Pre-2014*	Pension	SSA	66.7%

76	Maryland State Retirement and Pension System – Teachers' Retirement System	MD SPRS Teachers Plan A*	Pension	SSA	66.7%
77	New York City Board of Education Retirement System	NY NYC Ed Board Special Officers	Pension	SSA	66.3%
78	South Dakota Retirement System – Foundation Plan	SD RS Teachers Class A – Before 2021*	Pension	SSA	66.2%
79	South Dakota Retirement System – Foundation Plan	SD RS Teachers Class A – Before 2022*	Pension	SSA	65.9%
80	Tennessee Teacher Legacy Pension Plan	TN TLPP Teacher Pension Group III - Contributory*	Pension	SSA	65.8%
81	Washington School Employees' Retirement System – Plan 3	WA SERS Plan 3 Hybrid	Hybrid	SSA	65.7%
82	Oregon Public Employees' Retirement System - Legacy Plan	OR PERS School District Pension Tier 1*	Pension	SSA	65.6%
83	New York City Board of Education Retirement System	NY NYC Ed Board Auto Mechanics	Pension	SSA	65.5%
84	South Dakota Retirement System – Foundation Plan	SD RS Teachers Class A - After 2022*	Pension	SSA	65.5%
85	New Mexico Educational Retirement Board	NM ERB Post-2019	Pension	SSA	65.4%
86	New York State Teachers' Retirement System	NY STRS Tier 6	Pension	SSA	65.4%
87	Illinois State Teachers' Retirement System	IL TRS Tier 1	Pension	Non-SSA	65.4%
88	New York State Teachers' Retirement System	NY STRS Tier 5*	Pension	SSA	65.3%
89	Tennessee Teacher Legacy Pension Plan	TN TLPP Teacher Pension Prior Class B Contributory*	Pension	SSA	65.2%
90	Pennsylvania Public School Employees' Retirement System - Defined Contribution Plan	PA PSERS DC	DC Plan	SSA	65.1%
91	St. Paul Teachers Retirement Fund	MN St. Paul TRS Pre-1978*	Pension	SSA	64.9%
92	Tennessee Teacher Legacy Pension Plan	TN TLPP Teacher Pension Group I - Contributory*	Pension	SSA	64.9%
93	Michigan Public School Employees Retirement System – Pension Plus Plan	MPSERS Pension Plus Pre-2018*	Hybrid	SSA	64.9%
94	Minnesota Teachers Retirement Association	MN TRA Post-1989	Pension	SSA	64.7%
95	New York City Board of Education Retirement System	NY NYC Ed Board Pre-2012 C504 Plan*	Pension	SSA	64.6%
96	District of Columbia Teachers' Retirement Fund	DC TRP Pre-1996*	Pension	SSA	64.4%
97	Pennsylvania Public School Employees' Retirement System –Legacy Pension Plan	PA PSERS Class T-D Pre-2001*	Pension	SSA	64.3%
98	Tennessee Teacher Legacy Pension Plan	TN TLPP Teacher Pension Transferred Class B Contributory*	Pension	SSA	64.3%
99	Nebraska Public Employees Retirement Systems – School Employees Plan	NE PERS School Division Pre-2013*	Pension	SSA	64.3%
100	Hartford Municipal Employees' Retirement Fund	CT Hartford Ed Board - HESP	Pension	SSA	64.1%
101	Pennsylvania Public School Employees' Retirement System –Legacy Pension Plan	PA PSERS Class T-D Pre-1983*	Pension	SSA	64.0%
102	Tennessee Teacher Legacy Pension Plan	TN TLPP Teacher Pension Group III - Noncontributory*	Pension	SSA	63.9%

103	Tennessee Teacher Legacy Pension Plan	TN TLPP Teacher Pension Group II - Contributory*	Pension	SSA	63.9%
104	Tennessee Teacher Legacy Pension Plan	TN TLPP Teacher Pension Group I - Noncontributory*	Pension	SSA	63.9%
105	Montana Teachers' Retirement System	MT TRS K–12 Pre-2013*	Pension	SSA	63.8%
106	South Carolina Retirement System	SC RS Teachers Pension Class 2*	Pension	SSA	63.5%
107	Kansas City Public School Retirement System	MO Kansas City School Plan B*	Pension	SSA	63.4%
108	Wyoming Retirement System	WY RS Teachers Pre-2012*	Pension	SSA	63.1%
109	Tennessee Teacher Legacy Pension Plan	TN TLPP Teacher Pension Prior Class B Noncontributory*	Pension	SSA	63.0%
110	Nebraska Public Employees Retirement Systems – School Employees Plan	NE PERS School Division Post-2018	Pension	SSA	62.9%
111	Michigan Public School Employees' Retirement System – Pension Plus Plan 2	MPSERS Pension Plus 2 Teachers	Hybrid	SSA	62.6%
112	Michigan Public School Employees' Retirement System – Pension Plus Plan 2	MPSERS Pension Plus 2 Non-Instructional	Hybrid	SSA	62.6%
113	Hartford Municipal Employees' Retirement Fund	CT Hartford Ed Board - HSSSA	Pension	SSA	62.4%
114	Tennessee Teacher Legacy Pension Plan	TN TLPP Teacher Pension Transferred Class B Noncontributory*	Pension	SSA	62.2%
115	New York City Board of Education Retirement System	NY NYC Ed Board	Pension	SSA	62.1%
116	New York City Board of Education Retirement System	NY NYC Ed Board 63-10 Plan	Pension	SSA	62.1%
117	Missouri Public Education Employees' Retirement System	MO PEERS Post-2014	Pension	SSA	61.9%
118	Nebraska Public Employees Retirement Systems – School Employees Plan	NE PERS School Division Pre-2017*	Pension	SSA	61.8%
119	Nebraska Public Employees Retirement Systems - School Employees Plan	NE PERS School Division Pre-2018*	Pension	SSA	61.8%
120	South Carolina Retirement System	SC RS Teachers Pension Class 3	Pension	SSA	61.8%
121	Tennessee Teacher Legacy Pension Plan	TN TLPP Teacher Pension Group II - Noncontributory*	Pension	SSA	61.7%
122	St. Paul Teachers Retirement Fund	MN St. Paul TRS Coordinated Plan Post-1989	Pension	SSA	61.4%
123	Pennsylvania Public School Employees' Retirement System – Legacy Pension Plan	PA PSERS Class T-F Pension*	Pension	SSA	61.3%
124	Indiana My Choice: Retirement Savings Plan	IN TRF DC	DC Plan	SSA	61.1%
125	Maryland State Retirement and Pension System – Teachers' Combined System	MD SPRS Teachers Reformed	Pension	SSA	61.1%
126	Atlanta Board of Education Fund	GA Atlanta Ed Board - Pre-2010 WB*	Pension	Non-SSA	61.0%
127	District of Columbia Teachers' Retirement Fund	DC TRP Post-1996	Pension	SSA	60.9%
128	Public Employee Retirement System of Idaho	PERSI Teachers Pre-2019*	Pension	SSA	60.7%
129	Atlanta Board of Education Fund	GA Atlanta Ed Board - Pre-2010 NB*	Pension	Non-SSA	60.6%

130	Public Employee Retirement System of Idaho	PERSI Teachers Post-2019	Pension	SSA	60.6%
131	Employees' Retirement System of Rhode Island - Teachers	RI ERSRI Teachers SSA	Hybrid	SSA	60.6%
132	Illinois State Teachers' Retirement System	IL TRS Tier 1 Pre-1998 Formula*	Pension	Non-SSA	60.6%
133	Hartford Municipal Employees' Retirement Fund	CT Hartford Ed Board - HFSHP	Pension	SSA	60.4%
134	Wyoming Retirement System	WY RS Teachers Post-2012	Pension	SSA	60.3%
135	Delaware State Employees' Pension Plan	DE SEPP Teachers Pre-1997*	Pension	SSA	60.1%
136	Delaware State Employees' Pension Plan	DE SEPP Teachers Pre-2012*	Pension	SSA	60.1%
137	Public School Retirement System of St. Louis	MO St. Louis School Pre-2018*	Pension	SSA	60.0%
138	Kentucky Teachers' Retirement System	KY TRS Pension Pre-2008 K–12*	Pension	Non-SSA	59.9%
139	Arizona State Retirement System	AZ SRS Teachers Post-2013	Pension	SSA	59.8%
140	Minnesota Teachers Retirement Association	MN TRA Coordinated Plan Pre-1989*	Pension	SSA	59.8%
141	Arizona State Retirement System	AZ SRS Teachers Pre-2011*	Pension	SSA	59.6%
142	Arizona State Retirement System	AZ SRS Teachers Pre-2013*	Pension	SSA	59.6%
143	Arizona State Retirement System	AZ SRS Teachers Pre-1984*	Pension	SSA	59.6%
144	North Carolina Teachers' and State Employees' Retirement System	NC TSERS Other Education	Pension	SSA	59.6%
145	St. Paul Teachers Retirement Fund	MN St. Paul TRS Coordinated Pre-1989*	Pension	SSA	59.0%
146	Colorado Public Employee Retirement Association - Schools Division Fund	CO PERA Schools Division Tier 6	Pension	Non-SSA	59.0%
147	Missouri Public School Retirement System	MO PSRS Teachers Pre-2013*	Pension	Mixed	58.8%
148	Missouri Public School Retirement System	MO PSRS Teachers Post-2013	Pension	Mixed	58.6%
149	Kansas City Public School Retirement System	MO Kansas City School Plan C	Pension	SSA	58.5%
150	California State Teachers' Retirement System	CalSTRS PEPRA	Pension	Non-SSA	58.3%
151	Massachusetts Teachers' Retirement System	MA TRS Post-2012	Pension	Non-SSA	58.2%
152	North Carolina Teachers' and State Employees' Retirement System	NC TSERS Teachers Pre-2011*	Pension	SSA	58.2%
153	Michigan Public School Employees Retirement System - Legacy Plan	MPSERS Pension Teachers MIP 7%*	Pension	SSA	58.1%
154	North Carolina Teachers' and State Employees' Retirement System	NC TSERS Other Education Pre-2011*	Pension	SSA	58.1%
155	Massachusetts Teachers' Retirement System	MA TRS Pre-2012*	Pension	Non-SSA	58.0%
156	Public School Retirement System of St. Louis	MO St. Louis School Post-2018	Pension	SSA	58.0%

157	Montana Teachers' Retirement System	MT TRS K–12 Post-2013	Pension	SSA	57.7%
158	Pennsylvania Public School Employees' Retirement System - Legacy Pension Plan	PA PSERS Class T-C Pre-2001*	Pension	SSA	57.6%
159	Employees' Retirement System of Rhode Island - Teachers	RI ERSRI Teachers Schedule B2 SSA	Hybrid	SSA	57.3%
160	Hartford Municipal Employees' Retirement Fund	CT Hartford Ed Board - Non-bargaining	Pension	SSA	57.2%
161	Pennsylvania Public School Employees' Retirement System - Legacy Pension Plan	PA PSERS Class T-C Pre-1983*	Pension	SSA	57.0%
162	Colorado Public Employee Retirement Association - Denver Public Schools Fund	CO PERA Denver Schools Tier 6	Pension	Non-SSA	56.9%
163	Massachusetts Teachers' Retirement System	MA TRS Pre-2001*	Pension	Non-SSA	56.7%
164	Alaska Public Employees' Retirement System - Defined Benefit Plan Noncertificated School District Employees Tier 3	AK PERS Noncertificated School District Employees Tier 3*	Pension	Non-SSA	56.5%
165	Alaska Public Employees' Retirement System - Defined Benefit Plan Noncertificated School District Employees Tier 2	AK PERS Noncertificated School District Employees Tier 2*	Pension	Non-SSA	56.5%
166	Oklahoma Teachers' Retirement System	OK TRS Post-2011	Pension	SSA	56.4%
167	Hartford Municipal Employees' Retirement Fund	CT Hartford Ed Board - L818 Pre-2007	Pension	SSA	56.4%
168	Oklahoma Teachers' Retirement System	OK TRS Pre-2011 K–12*	Pension	SSA	56.2%
169	Massachusetts Teachers' Retirement System	MA TRS Pre-1996*	Pension	Non-SSA	56.1%
170	Ohio State Teachers Combined Plan	OH STRS Hybrid Post-2015	Hybrid	Non-SSA	56.0%
171	North Carolina Teachers' and State Employees' Retirement System	NC TSERS Teachers	Pension	SSA	55.9%
172	Utah Public Employees Noncontributory Retirement System	UT RS Teacher Noncontributory Pre-2011*	Pension	Mixed	55.8%
173	Utah Public Employees Contributory Retirement System	UT RS Teacher Contributory Pre-2011*	Pension	Mixed	55.6%
174	New Hampshire Retirement System	NH RS Teachers Pre-2012 Vested U65*	Pension	SSA	55.6%
175	New Hampshire Retirement System	NH RS Teachers Pre-2012 Non-Vest U65*	Pension	SSA	55.6%
176	New Hampshire Retirement System	NH RS Teachers Pre-2012 Non-Vest 650*	Pension	SSA	55.6%
177	New Hampshire Retirement System	NH RS Teachers Pre-2012 Vested 650*	Pension	SSA	55.6%
178	Massachusetts Teachers' Retirement System	MA TRS Pre-1979*	Pension	Non-SSA	55.5%
179	Massachusetts Teachers' Retirement System	MA TRS Pre-1984*	Pension	Non-SSA	55.5%
180	Ohio State Teachers' Retirement System	OH STRS Pension Post-2019	Pension	Non-SSA	55.3%
181	Hartford Municipal Employees' Retirement Fund	CT Hartford Ed Board - L2221	Pension	SSA	55.2%
182	Pennsylvania Public School Employees' Retirement System	PA PSERS Class T-H Hybrid	Hybrid	SSA	54.9%

183	Pennsylvania Public School Employees' Retirement System	PA PSERS Class T-G Hybrid	Hybrid	SSA	54.9%
184	Atlanta Board of Education Fund	GA Atlanta Ed Board - 2011 Tier WB*	Pension	Non-SSA	54.8%
185	Kansas PERS Cash Balance Plan - School Employees	KS PERS Schools Post-2015	GR Plan	SSA	54.6%
186	Hartford Municipal Employees' Retirement Fund	CT Hartford Ed Board - L818 Post-2007	Pension	SSA	54.5%
187	Massachusetts Teachers' Retirement System	MA TRS Pre-1975*	Pension	Non-SSA	54.5%
188	Indiana State Teachers Retirement Fund - Pre-1996 Account	IN TRF Pre-1996*	Hybrid	SSA	54.5%
189	Indiana State Teachers Retirement Fund - 1996 Account	IN TRF Pension Pre-2019*	Hybrid	SSA	54.5%
190	West Virginia Teachers Retirement System	WV TRS Tier 1 Pre-2015*	Pension	SSA	54.5%
191	West Virginia Teachers Retirement System	WV TRS Tier 1 Pre-1991*	Pension	SSA	54.5%
192	Atlanta Board of Education Fund	GA Atlanta Ed Board - 2011 Tier NB*	Pension	Non-SSA	54.3%
193	Colorado Public Employee Retirement Association - Schools Division Fund	CO PERA Schools Division Tier 5*	Pension	Non-SSA	54.3%
194	Colorado Public Employee Retirement Association - Schools Division Fund	CO PERA Schools Division Tier 4*	Pension	Non-SSA	54.3%
195	Connecticut State Teachers' Retirement System	CT STRS Post-2018	Pension	Non-SSA	53.8%
196	Colorado Public Employee Retirement Association - Denver Public Schools Fund	CO PERA Denver Schools Tier 3*	Pension	Non-SSA	53.8%
197	Colorado Public Employee Retirement Association - Denver Public Schools Fund	CO PERA Denver Schools Tier 4*	Pension	Non-SSA	53.8%
198	Colorado Public Employee Retirement Association - Denver Public Schools Fund	CO PERA Denver Schools Tier 5*	Pension	Non-SSA	53.8%
199	Kansas PERS Defined Benefit Plan - School Employees	KS PERS Schools Pre-2009*	Pension	SSA	53.7%
200	Pennsylvania Public School Employees' Retirement System –Legacy Pension Plan	PA PSERS Class T-E Pension*	Pension	SSA	53.7%
201	Employees' Retirement System of Rhode Island - Teachers	RI ERSRI Teachers Non-SSA	Hybrid	Non-SSA	53.6%
202	Alaska Public Employees' Retirement System - Defined Benefit Plan	AK PERS Noncertificated School District Employees Tier 1*	Pension	Non-SSA	53.6%
203	California State Teachers' Retirement System	CalSTRS Classic - 2% at 62*	Pension	Non-SSA	53.5%
204	Colorado Public Employee Retirement Association - Schools Division Fund	CO PERA Schools Division Tier 3*	Pension	Non-SSA	53.5%
205	Public School Retirement System of St. Louis	MO St. Louis School Pre-1999*	Pension	SSA	53.5%
206	Employees' Retirement System of Rhode Island - Teachers	RI ERSRI Teachers Schedule A SSA*	Hybrid	SSA	53.4%
207	Employees' Retirement System of Rhode Island - Teachers	RI ERSRI Teachers Schedule ABNE SSA*	Hybrid	SSA	53.4%
208	Employees' Retirement System of Rhode Island - Teachers	RI ERSRI Teachers Schedule B SSA*	Hybrid	SSA	53.4%
209	Employees' Retirement System of Rhode Island - Teachers	RI ERSRI Teachers Schedule B1E SSA*	Hybrid	SSA	53.4%

210	Employees' Retirement System of Rhode Island - Teachers	RI ERSRI Teachers Schedule ABE SSA*	Hybrid	SSA	53.4%
211	Employees' Retirement System of Rhode Island - Teachers	RI ERSRI Teachers Schedule B1NE SSA*	Hybrid	SSA	53.4%
212	Michigan Public School Employees Retirement System - Legacy Plan	MPSERS Pension Teachers MIP Plus*	Pension	SSA	53.3%
213	Alabama Teachers' Retirement System	AL TRS Tier 1*	Pension	SSA	53.2%
214	California State Teachers' Retirement System	CalSTRS Classic - 2% at 60*	Pension	Non-SSA	53.1%
215	New Hampshire Retirement System	NH RS Teachers Post-2012	Pension	SSA	53.1%
216	Hartford Municipal Employees' Retirement Fund	CT Hartford Ed Board - Paraprof	Pension	SSA	53.0%
217	Kansas PERS Defined Benefit Plan - School Employees	KS PERS Schools Pre-1993*	Pension	SSA	53.0%
218	Indiana State Teachers Retirement Fund - Hybrid Plan	IN TRF Hybrid	Hybrid	SSA	52.8%
219	Michigan Public School Employees Retirement System - Legacy Plan	MPSERS Pension Teachers MIP Graded*	Pension	SSA	52.6%
220	Michigan Public School Employees Retirement System - Legacy Plan	MPSERS Pension Teachers MIP Fixed*	Pension	SSA	52.5%
221	Colorado Public Employee Retirement Association - Denver Public Schools Fund	CO PERA Denver Schools Tier 2*	Pension	Non-SSA	52.4%
222	Colorado Public Employee Retirement Association - Denver Public Schools Fund	CO PERA Denver Schools Tier 1*	Pension	Non-SSA	52.4%
223	Hartford Municipal Employees' Retirement Fund	CT Hartford Ed Board - General	Pension	SSA	52.4%
224	Iowa Public Employees' Retirement System	IPERS Teachers Pre-2012*	Pension	SSA	52.4%
225	Colorado Public Employee Retirement Association - Schools Division Fund	CO PERA Schools Division Tier 1*	Pension	Non-SSA	52.3%
226	Ohio State Teachers' Retirement System	OH STRS Hybrid Pre-2015*	Hybrid	Non-SSA	52.3%
227	Kansas PERS Defined Benefit Plan - School Employees	KS PERS Schools Pre-2015*	Pension	SSA	52.3%
228	Maine Public Employees Retirement System - State Employee and Teacher Program	ME PERS Teachers Post-2011	Pension	Non-SSA	52.3%
229	Colorado Public Employee Retirement Association - Schools Division Fund	CO PERA Schools Division Tier 2*	Pension	Non-SSA	52.2%
230	Alaska Teachers' Retirement System - Defined Benefit Plan	AK TRS DB Tier 2*	Pension	Non-SSA	52.1%
231	Alaska Teachers' Retirement System - Defined Benefit Plan	AK TRS DB Tier 1*	Pension	Non-SSA	51.9%
232	Delaware State Employees' Pension Plan	DE SEPP Teachers Post-2012	Pension	SSA	51.8%
233	Tennessee Teacher Legacy Pension Plan	TN TLPP Teacher Pension Prior Class A Contributory*	Pension	SSA	51.5%
234	Kansas City Public School Retirement System	MO Kansas City School Plan A*	Pension	SSA	51.2%
235	California Public Employees Retirement Fund	CalPERS Schools PEPRA	Pension	Mixed	50.9%
236	Ohio State Teachers' Retirement System	OH STRS Pension Pre-2026*	Pension	Non-SSA	50.9%

237	Wisconsin Retirement System	WI RS Teachers Terminated-2000*	Pension	SSA	50.5%
238	Wisconsin Retirement System	WI RS Teachers Terminated-1999*	Pension	SSA	50.5%
239	Ohio State Teachers' Retirement System	OH STRS Pension Pre-2023*	Pension	Non-SSA	50.5%
240	California Public Employees Retirement Fund	CalPERS Schools Classic	Pension	Mixed	50.5%
241	Public School Teachers' Pension and Retirement Fund of Chicago	IL Chicago Teachers Tier 1*	Pension	Non-SSA	50.3%
242	California Public Employees Retirement Fund - Tier 1	CalPERS Schools Tier 1 Pre-2011*	Pension	Mixed	50.2%
243	California Public Employees Retirement Fund - Tier 1	CalPERS Schools Tier 1 Pre-2013*	Pension	Mixed	50.2%
244	Tennessee Teacher Legacy Pension Plan	TN TLPP Teacher Pension Prior Class A Noncontributory*	Pension	SSA	50.2%
245	Public Employees' Retirement System of Nevada - Regular Subfund	NV PERS Teachers - Pre-2010 EE-EM Pay*	Pension	Non-SSA	50.2%
246	West Virginia Teachers' Retirement System	WV TRS Tier 2 Teachers	Pension	SSA	50.1%
247	Ohio State Teachers' Retirement System	OH STRS Pension Pre-2021*	Pension	Non-SSA	50.1%
248	Ohio State Teachers' Retirement System	OH STRS Pension Pre-2015*	Pension	Non-SSA	50.1%
249	Iowa Public Employees' Retirement System	IPERS Teachers Post-2012	Pension	SSA	49.8%
250	Ohio State Teachers' Retirement System	OH STRS Pension Pre-2019*	Pension	Non-SSA	49.7%
251	Educational Employees' Supplementary Retirement System of Fairfax County	VA EESRS Post-2001	Pension	SSA	49.7%
252	Public School Teachers' Pension and Retirement Fund of Chicago	IL Chicago Teachers Tier 2	Pension	Non-SSA	49.7%
253	Public Employees' Retirement System of Mississippi	MS PERS Teachers Post-2011	Pension	SSA	49.6%
254	Ohio State Teachers' Retirement System	OH STRS Pension Pre-2017*	Pension	Non-SSA	49.4%
255	Minnesota Teachers Retirement Association	MN TRA Pre-1978*	Pension	Non-SSA	49.1%
256	Public Employees' Retirement System of Nevada - Regular Subfund	NV PERS Teachers - EE-EM Pay Post-2015*	Pension	Non-SSA	49.1%
257	Alabama Teachers' Retirement System	AL TRS Tier 2	Pension	SSA	49.1%
258	Maine Public Employees Retirement System - State Employee and Teacher Program	ME PERS Teachers Pre-2011*	Pension	Non-SSA	48.9%
259	West Virginia Teachers' Retirement System	WV TRS Tier 2 General	Pension	SSA	48.3%
260	Public Employees' Retirement System of Nevada - Regular Subfund	NV PERS Teachers - Pre-2010 EM Pay*	Pension	Non-SSA	48.2%
261	Wisconsin Retirement System	WI RS Teachers Terminated-1989*	Pension	SSA	48.2%
262	Wisconsin Retirement System	WI RS Teachers Terminated-1990*	Pension	SSA	48.2%
263	Wisconsin Retirement System	WI RS Teachers Terminated-1998*	Pension	SSA	48.2%

264	Maine Public Employees Retirement System - State Employee and Teacher Program	ME PERS Teachers Pre-2006*	Pension	Non-SSA	48.1%
265	Wisconsin Retirement System	WI RS Teachers Terminated-2011*	Pension	SSA	48.0%
266	Wisconsin Retirement System	WI RS Teachers Pre-2011*	Pension	SSA	48.0%
267	Public Employees' Retirement System of Nevada - Regular Subfund	NV PERS Teachers - Pre-2015 EE-EM Pay*	Pension	Non-SSA	48.0%
268	New Jersey Teachers' Pension & Annuity Fund	NJ TPAF Post-2011	Pension	SSA	48.0%
269	Maine Public Employees Retirement System - State Employee and Teacher Program	ME PERS Teachers Pre-1993*	Pension	Non-SSA	47.9%
270	Connecticut Teachers Retirement System	CT STRS Pre-1992*	Pension	Non-SSA	47.4%
271	Connecticut Teachers Retirement System	CT STRS Pre-2018*	Pension	Non-SSA	47.4%
272	Connecticut Teachers Retirement System	CT STRS Pre-2007*	Pension	Non-SSA	47.4%
273	Public Employees' Retirement System of Nevada - Regular Subfund	NV PERS Teachers - Employer Pay Post-2015	Pension	Non-SSA	47.1%
274	Kentucky Teachers' Retirement System	KY TRS Pension Pre-2002 K–12*	Pension	Non-SSA	46.8%
275	Louisiana TRS Lunch Plan B	TRSL Lunch Plan B Pre-2011*	Pension	SSA	46.7%
276	Louisiana TRS Lunch Plan B	TRSL Lunch Plan B Pre-1999*	Pension	SSA	46.7%
277	Kentucky Teachers' Retirement System	KY TRS Pension K–12*	Pension	Non-SSA	46.6%
278	New Jersey Teachers' Pension & Annuity Fund	NJ TPAF Pre-2007*	Pension	SSA	46.5%
279	New Jersey Teachers' Pension & Annuity Fund	NJ TPAF Pre-2011*	Pension	SSA	46.5%
280	New Jersey Teachers' Pension & Annuity Fund	NJ TPAF Pre-2008*	Pension	SSA	46.5%
281	New Jersey Teachers' Pension & Annuity Fund	NJ TPAF Pre-2010*	Pension	SSA	46.5%
282	Educational Employees' Supplementary Retirement System of Fairfax County	VA EESRS Tier 1*	Pension	SSA	46.2%
283	Georgia Teachers Retirement System	GA TRS	Pension	Mixed	46.2%
284	Wisconsin Retirement System	WI RS Teachers Current	Pension	SSA	46.1%
285	Kentucky Teachers' Retirement System	KY TRS Hybrid K–12	Hybrid	Non-SSA	46.1%
286	Public Employees' Retirement System of Nevada - Regular Subfund	NV PERS Teachers - Pre-2015 EM Pay*	Pension	Non-SSA	45.9%
287	Michigan Public School Employees Retirement System - Legacy Plan	MPSERS Pension Teachers Basic 4%*	Pension	SSA	45.9%
288	Texas Teachers Retirement System	TX TRS Tier 6	Pension	Mixed	44.9%
289	Texas Teachers Retirement System	TX TRS Tier 5	Pension	Mixed	44.3%
290	California State Teachers' Retirement System	CalSTRS GR Option	GR Plan	Non-SSA	44.2%

291	Texas Teachers Retirement System	TX TRS Tier 4*	Pension	Mixed	43.9%
292	Illinois State Teachers' Retirement System	IL TRS Tier 2	Pension	Non-SSA	43.8%
293	Texas Teachers Retirement System	TX TRS Tier 3*	Pension	Mixed	43.3%
294	Texas Teachers Retirement System	TX TRS Tier 1*	Pension	Mixed	42.6%
295	Employees' Retirement System of Rhode Island - Teachers	RI ERSRI Teachers Schedule ABE Non-SSA*	Hybrid	Non-SSA	42.3%
296	Employees' Retirement System of Rhode Island - Teachers	RI ERSRI Teachers Schedule B1E Non-SSA*	Hybrid	Non-SSA	42.3%
297	Employees' Retirement System of Rhode Island - Teachers	RI ERSRI Teachers Schedule B Non-SSA*	Hybrid	Non-SSA	42.3%
298	Employees' Retirement System of Rhode Island - Teachers	RI ERSRI Teachers Schedule A Non-SSA*	Hybrid	Non-SSA	42.3%
299	Employees' Retirement System of Rhode Island - Teachers	RI ERSRI Teachers Schedule ABNE Non-SSA*	Hybrid	Non-SSA	42.3%
300	Employees' Retirement System of Rhode Island - Teachers	RI ERSRI Teachers Schedule B1NE Non-SSA*	Hybrid	Non-SSA	42.3%
301	Texas Teachers Retirement System	TX TRS Tier 2*	Pension	Mixed	41.9%
302	Utah Public Employees Contributory Retirement System - Tier 2 Defined Contribution Plan	UT Teacher Tier 2 DC	DC Plan	Mixed	41.3%
303	Employees' Retirement System of the State of Hawaii	ERSHI Teachers Pre-2006*	Pension	SSA	41.2%
304	Atlanta Board of Education Fund	GA Atlanta Ed Board Post-2011	Pension	Non-SSA	41.0%
305	Ohio School Employees Retirement System	OH SERS U25-2017	Pension	Non-SSA	40.9%
306	Michigan Public School Employees Retirement System - Legacy Plan	MPSERS Pension Teachers Basic*	Pension	SSA	39.9%
307	Louisiana TRS Lunch Plan A	TRSL Lunch Plan A	Pension	Non-SSA	39.8%
308	Ohio School Employees Retirement System	OH SERS O25-2017	Pension	Non-SSA	39.4%
309	Louisiana School Employees' Retirement System	LA Schools	Pension	Non-SSA	36.4%
310	Florida Retirement System – Defined Benefit Plan	FL RS Pension Regular K–12 Post-2011	Pension	SSA	36.1%
311	Louisiana Teachers' Retirement System	TRSL Teachers Pre-2011*	Pension	Non-SSA	33.8%
312	Louisiana Teachers' Retirement System	TRSL Teachers Post-2015	Pension	Non-SSA	33.8%
313	Louisiana Teachers' Retirement System	TRSL Teachers Pre-2015*	Pension	Non-SSA	32.9%
314	Florida Retirement System – Defined Benefit Plan	FL RS Pension Regular K–12 Pre-2011*	Pension	SSA	32.8%
315	Louisiana TRS Lunch Plan B	TRSL Lunch Plan B	Pension	Non-SSA	28.2%
316	Louisiana Teachers' Retirement System	TRSL Teachers Pre-1999*	Pension	Non-SSA	27.3%

Note: Score shown is the average percentage of available "Retirement Benefits Score" points earned by the plan. * indicates a legacy plan.