

# Are Texas Teacher Retirement Benefits Adequate?

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## Introduction

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### Inadequate Benefits and Fragile Funding

The Teacher Retirement System (TRS) of Texas is not serving all of its members well. Most members will leave their teaching service in Texas with inadequate retirement benefits, and the unfunded

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liabilities the system has accrued over time harm today's teachers and retirees. It is important that Texas remain committed to its recent funding improvements adopted in 2019, but the financial changes thus far do nothing to help the majority of Texas educators who will not meaningfully benefit from TRS even if it is stabilized.

To solve that problem, we recommend that Texas legislators open up a different type of defined benefit retirement plan, called a guaranteed return (GR) plan, for its teachers and other education employees. Texas county and municipal employees already receive retirement benefits through GR plans and have been for decades. These types of plans offer a number of features that would be beneficial to education employees as well. GR plans balance the predictability of traditional pension plans with the flexibility to be on a path to a comfortable retirement even if an employee chooses not to work beyond the 20 to 25 years necessary to secure that promise under the current TRS plan.

We are not recommending any changes for current TRS members or retirees. But the creation of a GR plan — whether on its own or as one of multiple retirement plan options — would allow Texas to improve the retirement security of educators while also reducing the risk that the state adds to its already large unfunded liabilities.

From the benefit side, only about one-quarter of the educators who join TRS will secure an adequate retirement benefit. Long-serving veterans who put in 20 years or more can earn enough retirement income to live off, but TRS leaves all other members with inadequate savings. And even for those who do secure a larger pension, the income is not consistently adjusted for inflation, leaving retirees with a steadily eroding benefit.

This situation is a particular concern in Texas, where the state has chosen not to provide most of its educators with Social Security coverage.<sup>1</sup> The lack of Social Security coverage across its school districts makes it even more important for the state to ensure that all of its public-sector employees receive adequate retirement benefits during their service.

From a financial perspective, TRS has accumulated an unfunded liability of \$50.6 billion, which eats into state and school district budgets, keeps teacher compensation low, and keeps retirees from receiving cost-of-living adjustments on their pensions. With the national economy in the midst of a recession in the wake of the COVID-19 pandemic, TRS' unfunded liabilities are likely to rise even further in the coming years.

### History of Shifting Costs on to Teachers

The financial shortfall at TRS is partially from the legislature's failure to ensure it pays actuarially required contributions every year and partially because investments have not met the TRS board's assumptions. In response to TRS' financial problems in the past, Texas legislators have opted to reduce costs by cutting benefits for new hires. TRS is currently operating three tiers of benefits based on hire date, and each tier offers less generous retirement benefits than the tier that came before it. These cuts harm the retirement savings of new workers and limit the ability of schools to recruit and retain high-quality teachers.

The state legislature has also gradually increased the contribution rate that all active teachers have to pay into TRS, even though benefits are not increasing. After the Great Recession, legislators increased member contribution rates to 6.6% of payroll, and by 2015, those had increased to 7.7%.

In 2019, the Texas legislature passed legislation that will phase in a series of increases to employee and employer contribution rates toward TRS. Those changes will help shore up the plan's finances over time, but they also mean that districts will have less discretionary money and workers will see reductions in their take-home pay. By 2024, members will have 8.25% of their pay taken out for TRS contributions.

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TRS provides financial security only to very long-serving career teachers, while leaving many short- and medium-term workers with inadequate retirement savings.

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### TRS Will Need Structural Changes to Ensure Financial Security for Teachers and Taxpayers

While contribution rate changes will improve the long-term financial viability of the TRS plan, they do not alter the larger structural problems. Namely, TRS provides financial security only to very long-serving career teachers, while leaving many short- and medium-term workers with inadequate retirement savings.

Moreover, the changes have done nothing to prevent the plans from accruing additional unfunded liabilities going forward. TRS is still banking on lofty investment returns, and if its assumptions prove incorrect, as they have in the past, the state's unfunded liabilities could continue to grow.

This report outlines one way to help alleviate both of these problems going forward. We recommend offering new teachers a different type of defined-benefit retirement plan called a guaranteed return (GR) plan.<sup>2</sup> Texas county and municipal employees are already covered by GR plans and have been for decades. Adopting a similar model for education employees — whether on its own or as one of multiple retirement plan options — would allow Texas to improve the retirement security of educators while also reducing the risk that the state adds to its already large unfunded liabilities.

## Starting From Objectives

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When comparing the value and efficacy of retirement plans, it is important to start with what the objective is for offering the benefits in the first place. Any argument in favor or against a particular concept will be factoring in various trade-offs, such as:

- » the value of the benefits to workers,
- » the ability of the plan to actually deliver the promised benefits,
- » the amount of risk borne by the member or the state, and
- » the risk a retiree faces of running out of money.

A recent “Pension Benefit Design Study” published by TRS reviewed the current retirement plan design and concluded that the status quo is best because it offers lower costs to the state and it works the best for workers who serve for 32 consecutive years.<sup>3</sup> The objectives that they prioritize are (1) cost management and (2) providing the best benefit possible to someone who remains in TRS for a full career of service.

While those are certainly worthwhile objectives, we believe they are incomplete. We agree that costs matter, and we are concerned about the costs TRS currently faces with its \$50.6 billion shortfall that the state and future members will be required to fill in. And while a retirement plan needs to work well for members who choose to stay for a full career, it should be able to provide adequate retirement benefits to all members — proportional to their years of service — no matter how long they serve.

Our paper is based on the idea that the primary objective for Texas policymakers should be to offer a retirement plan — or set of plans — that balances the needs and risks for all participants. The goal should be for *all* TRS members to be on a path to a secure retirement.

In fact, the TRS benefit study agreed with our findings below. It found that the current TRS benefit package plan provides “more valuable benefits to career employees,” while a GR plan would offer “more valuable benefits to partial career or mobile employees.” The TRS report makes plain that if the objective of a retirement plan is to provide the most generous benefit to the longest-serving employees at the lowest cost, then the current plan is the best option. We do not challenge this finding. But we do challenge the premise that only this cohort of educators should be served by TRS.

As we show below, the current TRS benefit structure works well for the longest-serving educators, but only for those members. If the objective of a state retirement plan is to offer adequate retirement benefits to all state employees, policymakers will need to look for a different structure than it is currently using.

## Defining an Adequacy Standard

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The question of how much individuals need to save for an adequate retirement is a function of four main factors: how long the employee plans to work, how much they save each year, how quickly those investments will grow over time, and their ideal standard of living in retirement. The earlier a worker starts saving and the longer they plan to work, the lower their annual investment can be. On the opposite end, if workers are not building their nest egg in their early working years, they'll need to make significantly higher contributions in later years in order to compensate for fewer years of saving and compounding.

Given these factors, many financial experts recommend that workers set aside at least 10% to 15% of their annual salaries toward retirement, depending on when they start saving and how long they plan to work.<sup>4</sup> That total includes both employee and employer contributions, and it assumes that Social Security benefits supplement the worker's personal savings.

This generic rule of thumb, which has been endorsed by a range of financial advisers, is designed to help workers know how much they need to put aside each year while they're working in order to afford a secure and comfortable retirement. These contribution rates are based on the idea that in retirement, an individual will need income equal to between 60% and 80% of what they were earning before they retired. Retirees don't have as many expenses — such as paying Social Security and Medicare payroll taxes or saving for retirement anymore — as they do during their working years. But different preferences on standard of living may mean an individual or family aims for a higher or lower replacement rate.



The 10%-15% savings rates, plus Social Security, represent rough targets, and they are meant more as guidelines than as hard-and-fast rules. Still, they provide a rough approximation of adequate savings, and they provide a useful benchmark to measure the current TRS benefits against.

### Measuring TRS Against the Adequacy Standard

At first glance, Texas' TRS contribution rates more than pass the adequacy test. Teachers are automatically enrolled in TRS and, as of this school year, TRS members are contributing 7.7% of their salary, and school districts and the state are combining to contribute an additional 9.33% of their salary toward the pension plan.<sup>5</sup>

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A large body of research has found that defined benefit pension formulas disproportionately reward very long-term employees at the expense of short- and medium-term workers.

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However, a superficial look at contribution rates does not look deep enough when it comes to pension plans like TRS. For starters, about half of the employer contribution is going toward the plan's billions of dollars in unfunded liabilities, not to worker benefits. Moreover, individual workers do not receive benefits based on the contributions made into the plan on their behalf. Instead, TRS delivers benefits to workers through formulas tied to their years of service and salary. A large body of research has found that these benefit formulas disproportionately reward very long-term employees at the expense of short- and medium-term workers.<sup>6</sup>

Furthermore, Texas teachers cannot count on Social Security benefits to supplement their pension. Due to a historical quirk, Texas lets each school district decide whether they want to offer Social Security to their employees. Specifically, 17 districts, including Austin and San Antonio, provide Social Security coverage to all their workers, but TRS estimates that 96% of public school employees in Texas do not participate in Social Security.<sup>7</sup> Those workers are entirely dependent on TRS benefits, and they should be saving even more money while they work in order to afford a comfortable retirement. For non-covered workers, the rule of thumb is that contributions into the retirement plan should equal between 15% and 20% of payroll.

In short, it's impossible to know whether TRS is providing adequate retirement benefits without digging deeper into how benefits actually accumulate for workers in the plan. The next section looks at how workers earn benefits under the current TRS plan and then tests those benefits against the adequacy targets outlined above.

## How TRS Benefits Work

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Under TRS, workers become eligible for retirement benefits after five years of service (called “vesting”), which they can begin collecting upon reaching the normal retirement age. For workers hired post-2014, that age is 65, or as early as 62 if the sum of the employee’s age and years of service surpasses 80. Once retired, the worker’s benefit is a function of their years of service multiplied by 2.3% and multiplied again by their final average salary (their highest five years of service). As an example, a worker’s annual benefit under TRS might look like this:

**Annual pension = years of service X final average salary X 2.3%**

**Annual pension = 10 years of service X \$50,000 X 2.3%**

**Annual pension = \$11,500**

In this example, someone with 10 years of service and a final average salary of \$50,000 would qualify for an annual benefit of \$11,500. The retiree would receive that amount, paid out in monthly installments, until their death.<sup>8</sup>

While on the surface these formulas seem relatively easy to calculate, workers must also factor in *when* they can begin collecting their benefits. Their benefits will be based on their salaries in the years in which they were earned, and salaries are not adjusted for inflation. A 10-year veteran who turned 65 this year could begin collecting her TRS pension immediately. In contrast, her colleague with the same years of service who is only 35 years old this year would have to wait to collect the same benefit until she turns 65 in the year 2050.

Another way to look at this is through the lens of replacement rates. Two teachers with identical years of service will have the same replacement rate, but their real retirement benefit will depend on when they can begin collecting it. In the example above, both the younger and the older teacher qualify for a retirement benefit worth 23% of their salary (10 years of service times the 2.3% multiplier), but only the 65-year-old can begin collecting those benefits immediately. The younger teacher will qualify for a pension that will replace 23% of the salary she earned at age 35. In real terms, the younger teacher will have a benefit worth less than half that of the older teacher because inflation will have worn it away significantly by the time she can begin collecting it.

How do these rules translate into benefits over a worker's career? Figure 1 below shows how benefits would accumulate for a typical teacher hired after 2023 and placed into the TRS plan. The blue line shows how TRS benefits are projected to grow over time for a new, 25-year-old teacher. (See Appendix Table 1 for the full assumptions.)

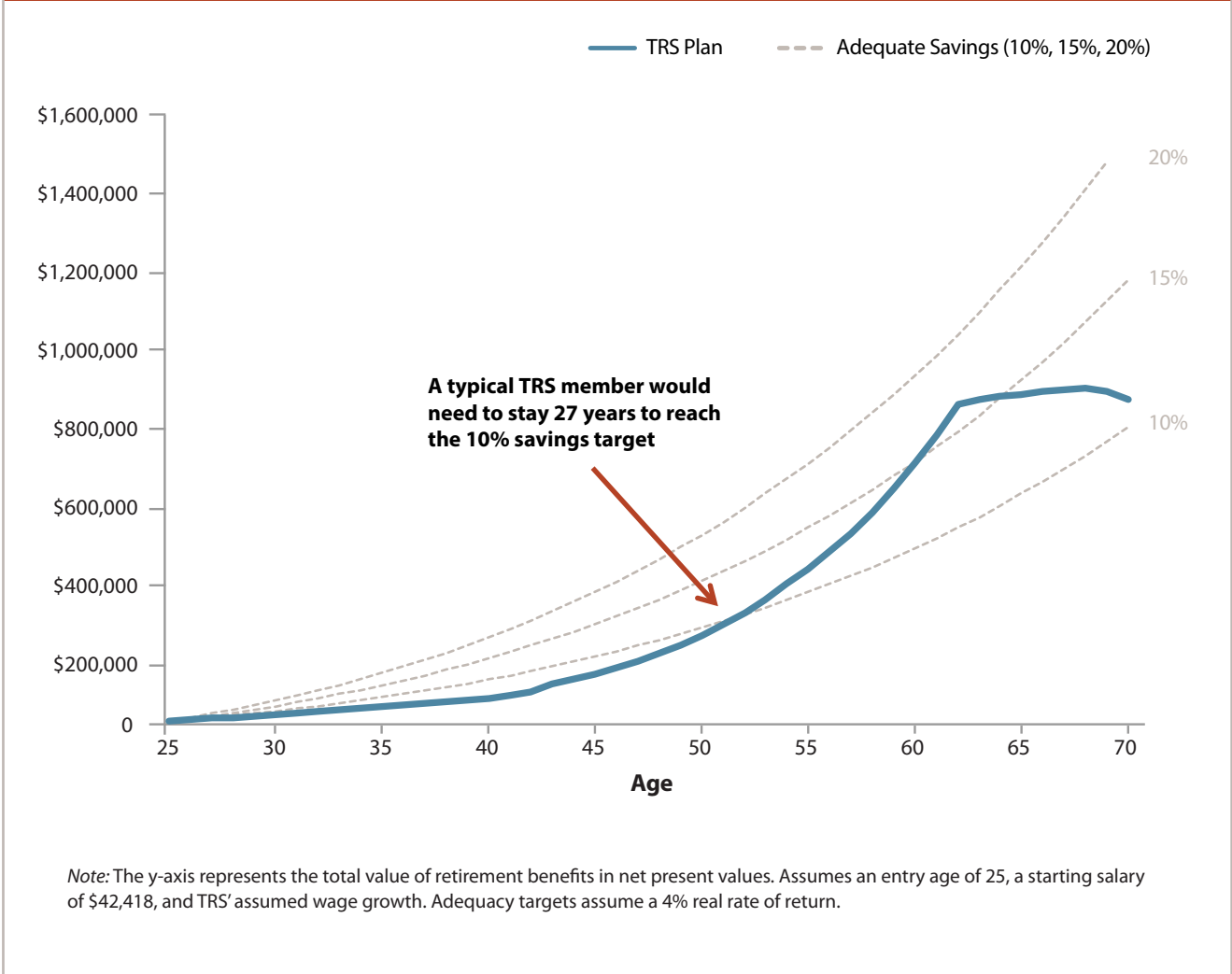
We've chosen a 25-year-old entrant as a representative given the plan's average membership age and average years of service.<sup>9</sup> The actual shape of the line for any given worker would depend on the age at which they entered the plan. Workers who entered TRS plan at younger ages would face an even more back-loaded curve and an even harder time reaching adequate savings targets, whereas workers who enter the plan at older ages would have a faster accumulation rate given their comparative proximity to the plan's normal retirement age.

The dashed red lines in Figure 1 represent the minimum adequacy levels recommended by financial experts, the annual savings targets of 10%, 15%, and 20% of one's salary designed to help workers reach a 60%-80% replacement rate in retirement. As the graph suggests, a typical TRS teacher needs to serve for 27 consecutive years before her retirement benefits surpass even the lower 10% adequacy target.

If the teacher left TRS plan prior to that point due to relocation, career change, or other reasons, she would be below even the minimal level of benefits that most experts recommend. However, if she remains, her benefits will accrue rapidly and will surpass the middle adequacy band upon reaching age 61. At that age, our hypothetical teacher will have worked 36 consecutive years in Texas public schools.

To be clear, while the state legislature has cut benefits for new workers, TRS has never offered adequate benefits to all of its members. Even prior to 2007, when the recent cuts began taking effect, a newly hired 25-year-old would need to serve 22 years before reaching the minimal adequacy target. This is the effect of the back-loaded formula. It requires teachers to remain for very long stretches of time in order to qualify for adequate retirement benefits.

**Figure 1 Texas TRS Benefits Will Provide Inadequate Retirement Benefits for Most Teachers (retirement assets by age)**



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No current or future TRS member is on track to reach the upper adequacy target for non-Social Security participants.

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Under its old benefit tiers, TRS offered long-serving veterans a quicker path to a more secure benefit. Those teachers would have surpassed the middle adequacy target after 25 years and passed even the highest adequacy target after 27 years. However, no current or future TRS member is on track to reach the upper adequacy target for non-Social Security participants.

Worse, most Texas teachers do not remain in TRS long enough to qualify for even the lowest adequacy target, now or in the past. Based on the latest TRS assumptions data, less than half of TRS members are projected to stay for even eight years, and three-quarters of TRS members are projected to leave their years of service before reaching even the minimally adequate saving levels.

To be clear, the TRS benefit structure has always had this problem, even when it was offering more generous benefits to earlier generations. In all of TRS' benefit tiers, the structure does a decent job protecting very long-term employees, but it does so at the expense of everyone else.

Some readers might think retirement plans *should* be designed in this way, to counter against teachers who might otherwise leave mid-career. However, the evidence suggests it is a mistake to look at pension plans as an effective retention tool.<sup>10</sup> Instead, employers should design retirement plans to meet the needs of workers, not as a retention tool for employers.

## How to Provide All TRS Members With Adequate Retirement Benefits: A Guaranteed Return Plan

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In response to the benefit and cost issues in their statewide pension plans, many states are now considering allowing employees a choice regarding their retirement plan. The vast majority of states, including Texas, offer employees at public colleges and universities a choice regarding their retirement plan,<sup>11</sup> and the idea of offering employee choices is beginning to spread for other public-sector employees as well. For K-12 teachers specifically, Florida, Michigan, Ohio, Pennsylvania, South Carolina, Utah, and Washington provide incoming teachers with a choice regarding the type of retirement plan they want.<sup>12</sup>

There are some positives to this approach, insofar as it gives teachers agency over their own retirement benefits. But each of these states also provides all of its teachers with the safety net of Social Security benefits. For Texas, where the vast majority of education employees are not covered by Social Security, it is critical that policymakers design a system where all workers have access to retirement plans with adequate savings and some semblance of a guaranteed level of income.

Fortunately, Texas need not look outside its own borders to find public-sector retirement plans that provide adequate retirement benefits to all of their members. The Texas Municipal Retirement System (TMRS) and the Texas County & District Retirement System (TCDRS) both offer their members a version of a GR plan that ensures all workers earn adequate retirement benefits, regardless of how long they remain in the system.<sup>13</sup> Collectively, TMRS and TCERS serve over 400,000 active Texas public employees, including nurses, mechanics, road crew workers, sheriffs, attorneys, office workers, jailers, and judges.

### How Guaranteed Return Plans Work

GR plans are a kind of defined-benefit plan, similar to a pension. The traditional defined-benefit plan defines income based on the employee's years of service. A GR plan defines the benefit as a guaranteed investment return on employee and employer contributions.

There are a variety of alternative plan design options, but GR plans offer two distinct advantages over traditional defined-benefit (DB) pension plans like the one currently operated by TRS.

First, under GR plans, workers earn benefits more steadily throughout their careers, rather than waiting to reach the age and service eligibility requirements of traditional DB pension plans. This feature would ensure more Texas education employees earn adequate retirement benefits compared to the status quo.

Second, a GR plan reduces the risk that the state will accrue additional unfunded liabilities going forward. Like in the current TRS plan, a GR plan takes responsibility for investing decisions, but instead of providing benefits via a formula tied to age and years of experience, a GR plan offers individuals a minimum guaranteed investment return for every year they remain in the plan, with the potential for higher returns if the plan's investments outperform their expectations.

### How to Build a Guaranteed Return Plan

There are a number of ways GR plans can be designed, and the GR plans Texas currently offers to county and municipal employees provide some comparisons. The TCDRS plan offers county employees a 7% guarantee each year but no gain sharing on investment returns that are earned beyond this. This is a pretty high target to hit, and the system has developed some unfunded liabilities as a result (though not many; it was nearly 90% funded as of 2019). The TMRS plan offers municipal employees a 5% guarantee on member contributions and then offers a full match on whatever investment returns are earned on employer contributions.

The only other state currently offering a GR plan to teachers is Kansas, where members get a 4% guarantee on their contributions, plus gain sharing. In Kansas, the state's pension board has discretion on whether and how much to share any gains above the 4% guarantee.

For this paper, we model a GR plan for TRS where employees receive a guaranteed return of 4% return every year, plus 75% of any excess return over 4%. The gain sharing would be guaranteed by statute and not subject to the whims of a pension board. The state would retain the differential to ensure the 4% guarantee even in bad years in the stock market.

Under this plan, employees would never see the value of their accounts fall. In fact, they would be guaranteed increases of at least 4% on their accumulated account balance every year, no matter how the state’s investments performed. At the same time, employees would also capture much of the upside potential when markets perform well. Table 1 below shows how different economic environments would affect TRS and the GR plan.

**Table 1** How Investment Returns Would Affect Teachers Under TRS Versus a GR Plan

		Investments <b>Underperform</b> Expectations	Investments <b>Meet</b> Expectations (7.25% return)	Investments <b>Overperform</b> Expectations
<b>Effect on Member Benefits</b>	Under TRS	Members could be required to pay more for the same benefit	None	None
	Under GR Plan	Members receive guaranteed 4% return	Members receive guaranteed 4% return plus 75% of return above 4%	Members receive guaranteed 4% return plus 75% of return above 4%
<b>Effect on the State</b>	Under TRS	Unfunded liabilities grow	None	Unfunded liabilities shrink
	Under GR Plan	Plan uses cushion built in better years	Plan builds cushion for down years	Plan builds cushion for down years

Under this plan, we assume retirement contributions stay the same as they are under current law. Teachers, districts, and the state would not see their contributions change. Workers would have the same amount of money going toward their retirement, and the state would continue making the same payments toward the plan’s unfunded liabilities. (See Appendix Table 2 for the full assumptions.)



When employees are ready to retire, they would have a choice between a guaranteed stream of payments throughout their lifetime through an annuity paid out in guaranteed monthly payments or a lump sum value of their account. If the state set the lifetime annuity as the default option — which we recommend — the GR plan would function just like the monthly benefit checks delivered through the current TRS structure. In designing their GR annuities, the state could offer employees the ability to select an annuity that’s right for them, including whether they want to build in protection for their survivors or whether they want their annuity payments to include cost-of-living adjustments (which TRS currently lacks).

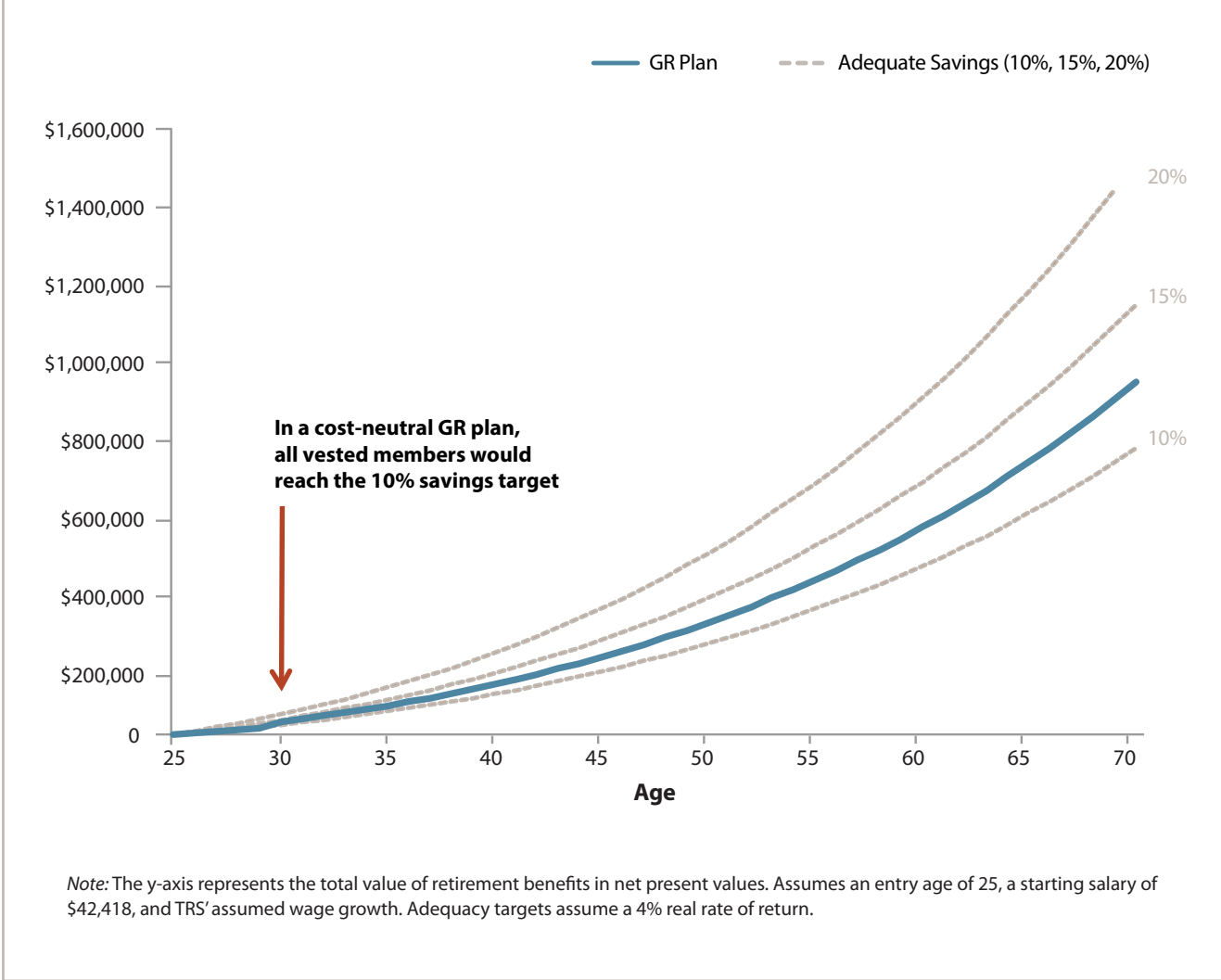
### How Much Would a GR Plan Provide?

Figure 2A on the next page compares the GR plan described above against the adequacy thresholds for teachers who begin their careers at age 25. As shown in the graph, once teachers vested after five years and qualified for their employer contribution, they would immediately surpass the minimum retirement savings threshold and be on pace toward an adequate replacement rate in retirement.

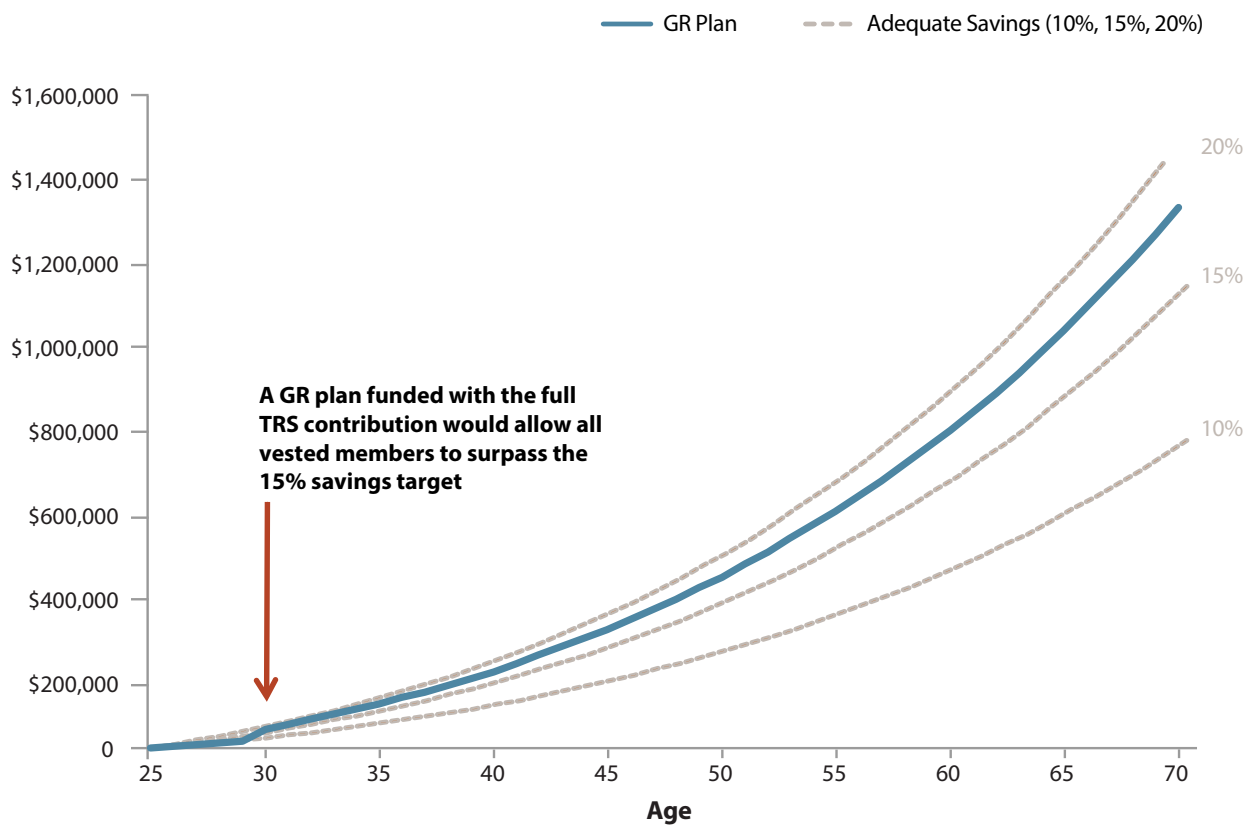
Unfortunately, the cost-neutral GR plan would not allow TRS members to surpass either the 15% or 20% savings target. That’s a problem for the vast majority of TRS members who cannot count on Social Security benefits to supplement their TRS plan. However, this situation is not due to the lack of retirement contributions *overall*. After all, contributions into the TRS under the status quo already total 17.58% of a worker’s salary, but about one-third of that amount is going toward paying down the plan’s unfunded liabilities. (For more, see the section below on “Paying Down the Existing Unfunded Liability.”)

Figure 2B shows the value of a GR plan if teachers were able to realize a 17.58% total contribution into their own retirement benefit. In practice, employees could provide 8.25% toward this, the contribution rate they will be paying anyway in a few years based on current funding policy; the state would need to increase its total costs to make up the difference, though.

**Figure 2A A Cost-Neutral Guaranteed Return Plan Would Put Vested TRS Members Into the Lower Adequacy Target Range 25 Years Faster Than the Status Quo (retirement assets by age)**



**Figure 2B A Guaranteed Return Plan Funded With Full TRS Contributions Would Provide All Vested TRS Members With Adequate Levels of Retirement Security (retirement assets by age)**



Note: The y-axis represents the total value of retirement benefits in net present values. Assumes an entry age of 25, a starting salary of \$42,418, and TRS' assumed wage growth. Adequacy targets assume a 4% real rate of return.

If the state were able to increase its contributions or pay for TRS' unfunded liabilities out of another pot of money, that would allow all TRS employees to qualify for at least the middle band of adequate retirement savings. A similar move to increase contributions under the current TRS benefit structure would not offer the same benefits for workers due to the way that formula delivers benefits.

### Comparing the GR Plan to TRS for Different Kinds of Teachers

Although we believe the proper comparison for retirement plans is to an adequacy threshold — and not to each other — readers may be curious how the current TRS benefit compares to the proposed GR plan. The answer depends on the age the teacher enters the plan and how long they serve. A teacher who enters the profession at age 25 would need to teach for 28 consecutive years before their TRS benefits surpassed what they might have received under the cost-neutral GR plan described above.

The TRS plan works slightly better for later entrants because they're already closer to becoming eligible to draw their pensions. A 30-year-old entrant would need to serve for 24 years in TRS before their benefits are worth more than in the GR plan. Even for 35-year-old entrants, the GR plan would offer a better benefit than TRS provides for a teacher's first 17 years of service. According to the pension plan's own projections, almost two-thirds of Texas teachers who enter at age 35 leave before reaching that threshold.<sup>14</sup>

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No one should expect to secure a comfortable retirement if they stop working after 10 or 15 years, but TRS leaves many workers short of where they *should be* at that point in their careers.




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Regardless of entry age, the current TRS plan offers full-career teachers a more generous benefit than the guaranteed return plan, but this comes at the expense of workers who only commit for 5, 10, or even 15 years of teaching. To be clear, no one should expect to secure a comfortable retirement if they stop working after 10 or 15 years, but what's different about TRS is that it leaves many workers short of where they *should be* at that point in their careers.

In fact, TRS came to the same conclusion in their 2018 "Pension Benefit Design Study" report. In Appendix Figure 1, we replicate their findings and show that employees would need to serve for more than two decades before their TRS benefits would exceed the GR plan.

Table 2 below puts these numbers in context using sample teachers. It describes the type of teacher and then provides estimates for how much the value of the TRS benefit would be for that type of teacher compared to how much she would have earned under the GR plan. Although these are three representative profiles, we expect that about 70% of all new Texas teachers, across all entry ages, would be better off under the GR plan than they are under TRS.<sup>15</sup>

**Table 2** How Investment Returns Would Affect Teachers Under TRS Versus a GR Plan

			
<b>Profile</b>	<b>Ms. Early</b> began teaching in Texas public schools at age 25	<b>Ms. Middle</b> began teaching in Texas public schools at age 35	<b>Ms. Career</b> began teaching in Texas public schools at age 25
<b>TRS Value</b>	After 5 years, Ms. Early will qualify for a TRS pension when she retires worth an estimated <b>\$17,633</b> over the course of her lifetime	After 15 years, Ms. Middle will qualify for a TRS pension when she retires worth an estimated <b>\$95,011</b> over the course of her lifetime	After 35 years, Ms. Career will qualify for a generous pension that will replace 69% of her final salary. Over the course of her lifetime, her pension will be worth an estimated <b>\$661,159</b>
<b>GR Plan Value</b>	After 5 years, if Ms. Early had participated in the GR Plan, her account balance would be worth <b>\$30,774</b>	After 15 years, if Ms. Middle had participated in the GR Plan, her account balance would be worth <b>\$127,330</b>	After 35 years, if Ms. Career had participated in the GR Plan, her account balance would be worth <b>\$534,603</b>

In summary, a GR plan would do a better job than the current TRS plan of providing all Texas teachers with secure retirement benefits.<sup>16</sup> Due to having a more conservative investment return, the GR plan would offer a lower back-end benefit for full-career participants in TRS, but from a worker’s perspective, it would still be better for all but the longest-serving veterans.

### Paying Down the Existing Unfunded Liability

The cost-neutral GR plan modeled here assumes that contributions would be identical to the TRS. Both employees and employers are assumed to continue contributing at the same rate. Under the GR plan, the employer contributions would be split roughly in half. Slightly less than half of the total employer contribution (4.06%) would go toward employee accounts, while the remainder (5.27%) would go toward paying down the current TRS unfunded liabilities. This is essentially the same as the way that the TRS plan works now, except that it separates contributions into the plan's "normal cost" of benefits, while the latter goes toward unfunded liabilities.

Structuring the GR plan this way would allow the state to continue paying down existing unfunded liabilities at the same rate as they are currently and would ensure that the TRS fund would not be depleted for current members and retirees.

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Adding a GR plan will not reduce TRS' current unfunded liability. However, covering new workers in a GR plan would reduce the potential for adding new debt.

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Adding a GR plan will not reduce TRS' current unfunded liability. The state is responsible for paying off that debt regardless of how future teachers earn benefits. However, over time, covering new workers in a GR plan would reduce the potential for adding new debt.

## Conclusion

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Much of the public debate over teacher pensions is mistakenly framed as an either/or: Either states keep their current defined benefit pension plans or they move all workers to low-cost defined contribution plans like 401(k)s in the private sector. But as the Texas county and municipal retirement plans show, this is a false dichotomy. There are ways to cover all workers with benefits guaranteed to provide adequate retirement security.

### A Retirement Plan that Supports Everyone

The GR plan presented here includes a number of features that would benefit Texas teachers. For starters, it would put all future Texas educators on a path to a secure retirement no matter how long they stay. Moreover, the GR structure offers flexibility for workers without asking them to make their own investment decisions, manage a stock portfolio, or worry about investment fees. All of those decisions could continue to be run by TRS staff members. Additionally, a GR plan like the one modeled here would guarantee all members at least a 4% return on their investments every year, regardless of how the stock market fared. Workers would receive some upside as well, and there would be no downside risk to workers.

A GR plan would also handle another problem with a typical 401(k) plan: the phase of life where retirees must spend down their assets. Retirees struggle to know how much of their assets they should spend down each year, but the GR plan recommended here would automatically convert the worker's account balance into a guaranteed monthly annuity. Under this type of system, workers would collect a monthly check just like they currently do with the TRS pension plan.

### Choices and Alternatives

To be clear, the guaranteed return plan concept outlined here isn't the only way to accomplish the goal of providing all teachers with a path to retirement security. We think it is the most efficient approach for Texas given the broader landscape of retirement plans in the state. But GR plans involve trade-offs related to risk-sharing, levels of guarantees, and the agency of TRS members themselves. And theoretically the amount of the guaranteed return could be changed by a future legislature (though only prospectively, consistent with contract protections). Other alternatives — such as risk-sharing pension plans or hybrid plans that combine traditional DB plans and defined contribution plans — could accomplish similar goals. What works best for Texas may not work best for other states.

Further, no retirement plan is one-size-fits all. Everyone could achieve adequate retirement income from a GR plan, but those who work 30 to 35 years could conceivably accrue larger benefits from a defined benefit pension. Therefore, Texas legislators could decide to offer multiple retirement plans for new TRS members to choose from. For example, new educators could be defaulted into the GR plan concept outlined here and given the option to choose some individually managed plan or a risk-managed pension plan. Even within different plan design options, Texas could also consider giving more autonomy to workers who may prefer higher or lower retirement savings rates.

### Options for GR Plan Design

Although this paper has modeled out a specific GR plan, state policymakers could choose to make a few adjustments. For example, before setting the guaranteed rate of return, they should convene teacher focus groups to understand what they might prefer: Would they trade a lower guaranteed rate of return in exchange for a higher upside, or would they prefer a higher, fixed guarantee with no upside at all?

In creating a new GR plan for educators, Texas legislators could borrow some of the plan elements from the GR plans run for the state's counties and municipalities. (See Appendix Table 3 for a comparison of the different plans.)<sup>17</sup>

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**All Texas teachers deserve adequate retirement benefits. The current TRS system isn't meeting that goal, but a well-designed GR plan could.**

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Regardless of the specific design choices that state leaders decide to pursue, the GR plan framework would offer more equitable retirement benefits than Texas teachers receive today. All Texas teachers deserve adequate retirement benefits. The current TRS system isn't meeting that goal, but a well-designed GR plan could.

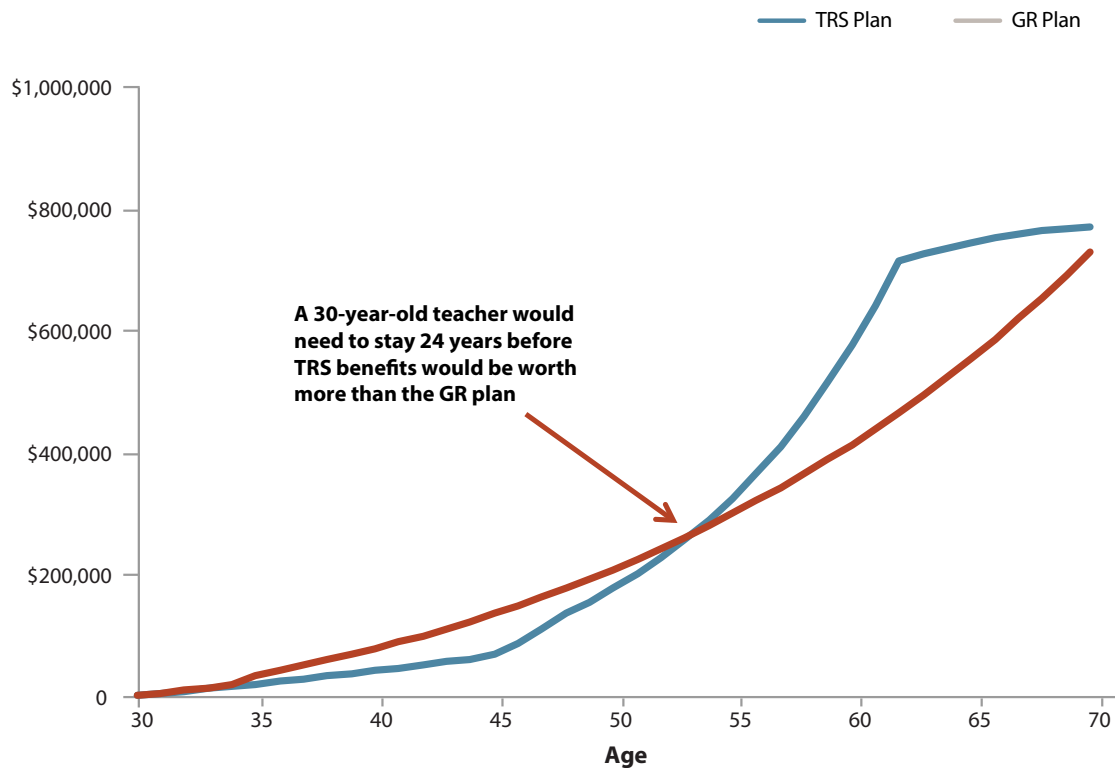


## Appendix

**Table A1** The Evolution of TRS Benefits

	Members hired before Sept. 1, 2007	Members hired between Sept. 1, 2007, and Aug. 31, 2014	Members hired after Sept. 1, 2014
<b>Employee Contributions<sup>18</sup></b>	7.70%	7.70%	7.70%
<b>Employer Contributions for Benefits<sup>19</sup></b>	4.06%	4.06%	4.06%
<b>Employer Contributions for Unfunded Liabilities</b>	5.27%	5.27%	5.27%
<b>Investment Return Assumption</b>	7.25%	7.25%	7.25%
<b>Inflation Assumption</b>	2.3%	2.3%	2.3%
<b>Vesting Period</b>	5 years	5 years	5 years
<b>Formula Multiplier</b>	2.3%	2.3%	2.3%
<b>Final Average Salary</b>	5 highest year <sup>20</sup>	5 highest years	5 highest years
<b>Interest Credit on Withdrawals</b>	2%	2%	2%
<b>Normal Retirement Age</b>	Age 65 with 5 years of service; any age with 5 years of experience if age + service exceeds 80 years	Age 65 with 5 years of service; age 60 if age + service exceeds 80 years	Age 65 with 5 years of service; age 62 if age + service exceeds 80 years
<b>Early Retirement</b>	55 with 5 years; any age with 30 years	55 with 5 years; rule of 80 if under age 60; any age with 30 years	55 with 5 years; rule of 80 if under age 62; any age with 30 years
<b>Cost of Living Adjustment (COLA)</b>	None	None	None

**Figure A1** Comparing TRS Benefits Versus a Guaranteed Return Plan (retirement assets by age)



Note: The y-axis represents the total value of retirement benefits in net present values. Both lines assume an entry age of 30, a starting salary of \$42,418, and TRS' assumed wage growth.

In Figure 7.2 of the 2018 "Pension Benefit Design Study" published by TRS, they compare a GR plan with the TRS DB plan. Their figure shows that a 30-year-old entrant into TRS would need to serve for 24-25 years before their TRS benefit exceeds the cost-neutral GR plan. We replicate their graph below and come to a nearly identical conclusion. We use the same starting age as the TRS report — age 30 — and compare TRS benefits to our proposed cost-neutral GR plan. Like the TRS actuaries, we estimate this employee would need to serve for 24 consecutive years before their TRS benefits would exceed the hypothetical GR plan.

**Table A2** Comparing the TRS Benefit and a Cost-Neutral GR Plan (post-2023 hires)

	<b>TRS Plan as of 2023</b>	<b>Guaranteed Return Plan</b>
<b>Employee Contributions</b>	8.25%	8.25%
<b>Employer Contributions for Benefits</b>	4.06%	4.06%
<b>Employer Contributions for Unfunded Liabilities</b>	5.27%	5.27%
<b>Investment Return Assumption</b>	7.25%	6.4375% <sup>21</sup>
<b>Inflation Assumption</b>	2.3%	2.3%
<b>Vesting Period</b>	5 years	5 years
<b>Formula Multiplier</b>	2.3%	N/A
<b>Final Average Salary</b>	5 highest years	N/A
<b>Interest Credit on Withdrawals</b>	2%	N/A
<b>Normal Retirement Age</b>	Age 65 w/ 5 years; Age 62 if age + service exceeds 80 years	State could make actuarially fair annuities available beginning at age 55 or 60
<b>Early Retirement</b>	55 with 5 years; rule of 80 under age 62; any age with 30 years	N/A
<b>COLA</b>	None	Members could select annuity options with COLAs

**Table A3** Comparing Guaranteed Return Plans

	<b>Proposed Guaranteed Return Plan for Texas Teachers</b>	<b>Texas Municipal Retirement System (TMRS) Plan</b>	<b>Texas Municipal Retirement System (TMRS) Plan</b>
<b>Employee Contributions</b>	8.25%	5%	5% <sup>22</sup>
<b>Employer Contributions for Benefits</b>	4.06%	5%	5%
<b>Investment Return Assumption</b>	6.4375% (based on a 4% guarantee plus 75% of the plan's rate of return over the previous 5 years) <sup>23</sup>	5% <sup>24</sup>	7%
<b>Inflation Assumption</b>	2.3%	2.5%	2.75%
<b>Vesting Period</b>	5 years	5 years	5 years <sup>25</sup>
<b>Normal Retirement Age</b>	State could make actuarially fair annuities available to workers beginning at age 55 or 60	Does not affect benefit accruals, but age 60 with 5 years of service; any age with 20 years of service	Does not affect benefit accruals, but after vesting at age 60, when service time plus age equals 75 or 80, or at any age with 20 or 30 years of service
<b>COLA</b>	Members could select annuity options with COLAs	Members may select annuity options with COLAs	Members may select annuity options with COLAs

## Endnotes

- <sup>1</sup> Only educators who teach in San Antonio ISD and Austin ISD schools, along with a handful of small districts around the state, are enrolled in Social Security.
- <sup>2</sup> The technical term for these plans is a “cash balance” plan, but that terminology doesn’t describe what they do, so we refer to them as “guaranteed return” plans since that is what they offer to participants.
- <sup>3</sup> Teacher Retirement System of Texas, Pension Benefit Design Study (Austin, TX: Teacher Retirement System of Texas, 2018), [https://www.trs.texas.gov/TRS%20Documents/pension\\_study\\_2018.pdf](https://www.trs.texas.gov/TRS%20Documents/pension_study_2018.pdf).
- <sup>4</sup> See, for example, Alicia H. Munnell, Francesca Golub-Sass, and Anthony Webb, *How Much to Save for a Secure Retirement* (Newton, MA: Center for Retirement Research at Boston College, 2011), [http://crr.bc.edu/wp-content/uploads/2011/11/IB\\_11-13-508.pdf](http://crr.bc.edu/wp-content/uploads/2011/11/IB_11-13-508.pdf), and Fidelity Viewpoints, “How Much Do I Need to Retire?” Fidelity, updated July 21, 2020, <https://www.fidelity.com/viewpoints/retirement/how-much-money-do-i-need-to-retire>.
- <sup>5</sup> Member contributions are scheduled to increase starting in 2021 to 8.00% and then 8.25% two years later.
- <sup>6</sup> See, for example, Robert Costrell and Michael Podgursky, “Peaks, Cliffs, and Valleys: The Peculiar Incentives in Teacher Retirement Systems and Their Consequences for School Staffing,” *Education Finance and Policy* 4, no. 2 (2009): 175–211; Martin Lueken, *(No) Money in the Bank: Which Retirement Systems Penalize New Teachers?* (Washington, DC: Thomas B. Fordham Institute, 2017); Josh McGee and Marcus Winters, *Better Pay, Fairer Pensions III—The Impact of Cash-Balance Pensions on Teacher Retention and Quality: Results of a Simulation*, Report 15 (New York: Manhattan Institute, 2016); Ben Backes et al., “Benefit or Burden? On the Intergenerational Inequity of Teacher Pension Plans,” *Educational Researcher* 45, no. 6 (2016): 367–77.
- <sup>7</sup> Teacher Retirement System of Texas, *Pension Benefit Design Study*. For a full list of districts participating in Social Security, see “Texas Public School Districts That Participate in Social Security,” Association of Texas Professional Educators, accessed October 16, 2020, <https://www.atpe.org/en/Advocacy/Issues/Texas-Public-School-Districts-That-Participate-in>.
- <sup>8</sup> This memo is focused on employee *retirement* benefits, but Texas also covers retiree *health* benefits through the state’s TRS-Care program.
- <sup>9</sup> Chad Aldeman, “At What Age Do Teachers Start Teaching?” TeacherPensions.org, updated May 29, 2019, <https://www.teacherpensions.org/blog/what-age-do-teachers-start-teaching#:~:text=Teacher%20Pensions%20Blog&text=When%20most%20people%20think%20about,22%20or%2023%20years%20old>.
- <sup>10</sup> For an overview of the research literature on how pensions affect teacher behavior, see Chad Aldeman, “Teacher Pensions, Recruitment, and Retention,” TeacherPensions.org, updated July 8, 2014, <https://www.teacherpensions.org/blog/teacher-pensions-recruitment-and-retention>.
- <sup>11</sup> Source: “Retirement Plan Options for State University Faculty and Staff,” NASRA, updated November 2018, <https://www.nasra.org/files/Compiled%20Resources/HigherEdPlanOptions.pdf>. In Texas, about 40% of higher education employees make an affirmative decision to join the state’s Optional Retirement Program (ORP): Texas Higher Education Coordinating Board, “Optional Retirement Program FY18 Participation Report Summary,” 60x30TX, accessed October 16, 2020, <http://www.theccb.state.tx.us/reports/PDF/12056.PDF>. The Texas ORP plan could also be considered as a viable alternative to the plans modeled here. The ORP plan has a shorter vesting period (one year versus five in TRS) and similar contribution rates, with no unfunded liabilities. However, the ORP plan is a defined contribution plan with no guarantees for workers, and we believe the protections offered by a guaranteed return plan are likely to be a better fit for most Texas educators.
- <sup>12</sup> Source as of 2017: Sandi Jacobs, Kathryn Doherty, and Martin Lueken, *Lifting the Pension Fog: What Teachers and Taxpayers Need to Know about the Teacher Pension Crisis* (Washington, DC: National Council on Teacher Quality, 2017), <https://nctq.org/publications/Lifting-the-Pension-Fog-What-teachers-and-taxpayers-need-to-know-about-the-teacher-pension-crisis#>. Pennsylvania added its optional plan after 2017.
- <sup>13</sup> The technical term for these plans is a “cash balance” plan. That terminology doesn’t make sense to most people, so we call them “guaranteed return” plans since that is what they do.

- <sup>14</sup> The comparable break-even point where the TRS plan exceeds the guaranteed return plan for a 40-year-old entrant would be 13 years of service.
- <sup>15</sup> In 2018 TRS put out a “Pension Benefit Design Study” purporting to show that TRS’ defined benefit structure was more efficient than other types of retirement plans. However, its conclusions focused solely on 32-year veteran employees. Its own chart, on page 67 of the report, aligned with the findings presented here. It showed that a cost-neutral GR plan (also known as a cash balance plan) outperformed the TRS DB structure for employees with 25 years or fewer years of service. Teacher Retirement System of Texas, Pension Benefit Design Study.
- <sup>16</sup> Although technically feasible, we recommend caution with opening the GR plan to existing members. While many workers would likely benefit from such a transition, pricing out the move such that it would not destabilize the TRS system itself would be an important, highly technical process. TRS is currently relying on contributions from short- and medium-term workers to provide the cash flow necessary to pay retiree benefits. The legislature would need to ensure that it continued to provide adequate contributions to amortize unfunded liabilities, perhaps using a fixed annual dollar amount rather than basing contributions on a percentage of payroll.
- <sup>17</sup> Those plans have a basic framework in place, but they let local employers decide from a finite list of choices how much they (as the employer) should contribute toward retirement and how fast workers should vest in those contributions. The argument in favor of this approach is that giving local entities control over those decisions would empower them to work with their labor groups to decide the most attractive option for their community. Some leaders may want to put more dollars into base pay, while others might prefer to offer more generous retirement benefits. Like the county and municipal systems, the state could define a finite list of options, but it would give employers a say in how they want to structure their compensation packages. The argument against this approach is that Texas labor unions do not have formal collective bargaining power or the right to strike. Giving local entities this kind of control could be viewed negatively by educators who don’t trust local authorities to have their best financial interests at heart and who might aim to reduce benefits to a bare minimum.
- <sup>18</sup> All current employees pay 7.70% of salary, but these rates rose from 6.40% in fiscal year 2013 and are scheduled to rise to 8.00% in FY 2022 and again to 8.25% in FY 2024.
- <sup>19</sup> The latest TRS actuarial valuation report calculates a total normal cost of 11.62% of a worker’s salary plus 0.14% for administrative expenses. It does not break out the results by tier, although the normal cost would be higher for the earlier tiers and lower for more recent hires. Teacher Retirement System of Texas, Actuarial Valuation Report as of August 31, 2020 (Austin, TX: Teacher Retirement System of Texas, 2019), [https://www.trs.texas.gov/TRS%20Documents/actuarial\\_valuation\\_pension\\_fund\\_2020.pdf](https://www.trs.texas.gov/TRS%20Documents/actuarial_valuation_pension_fund_2020.pdf).
- <sup>20</sup> This is the highest three years for members who were “grandfathered” as of August 31, 2005. To be considered grandfathered, members needed to be at least 50 years old, have 25 years of service, or have the sum of their age and years of service be 70 or higher.
- <sup>21</sup> Based on a 4% guarantee plus 75% of the plan’s rate of return over the previous five years. This scenario uses the 7.25% TRS assumption as the baseline for the five-year rolling return.
- <sup>22</sup> Employers have discretion over the design of the plan offered to their members.
- <sup>23</sup> This scenario uses the TRS plan’s 7.25% rate of return assumption as the baseline assumption for the five-year rolling return.
- <sup>24</sup> Under the TMRS plan, employees are guaranteed an investment return of at least 5%, and the plan itself assumes it can earn a return of 6.75% annually.
- <sup>25</sup> TCDRS employers can choose between 5-, 8-, or 10-year vesting.

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