



RESEARCH HIGHLIGHTS

THE THREAD WOVEN INTO THE MOST SUCCESSFUL STATE PLANS

A comprehensive TIAA Institute analysis of 85 major public retirement systems across all 50 states demonstrates how retirement plan design choices affect whether public sector employees can expect to replace an adequate proportion of their income in retirement.

The profile of public sector employees has evolved considerably in recent decades. Workers are more mobile, live longer, and can expect to encounter a broader mix of retirement plan designs.

Against this backdrop, the TIAA Institute's research seeks to help public sector retirement plan sponsors answer a central question: **Is our plan on track to deliver adequate lifetime income to retirees?**

This analysis of major retirement systems¹ benchmarked each against the recommended standard of **80%**² pre-retirement income replacement.

5 KEY RESEARCH TAKEAWAYS

1

Lifetime income access is a common thread. Across every plan design, guaranteed income—via defined benefit (DB) pensions, annuitized defined contribution (DC) balances, or Social Security—is what separates adequate plans from insufficient ones.

2

No single plan type guarantees success. DB pensions, hybrid, cash balance, and DC plans can all reach the **80%** income replacement target—but only when specific design conditions are met.

3

Social Security is the single most powerful lever. Plans without it face a steep climb; **20%** of public plans still exclude it, putting participants at real risk of outliving savings.

4

Higher earners are the most underserved. Even in Social Security-covered DB plans, only about one-third deliver **80%** income replacement for high earners.

5

Supplemental 457 plans with auto-enrollment plan features and in-plan annuities are a high-impact solution for DB systems without Social Security, and help deliver higher



WHY TARGET 80% INCOME REPLACEMENT?

Even full, comfortable retirements tend to come with some reduction in expenses.

No more FICA taxes
(7.65% of pay)

No more retirement plan contributions
(another 10-15% of pay)

Decline in commuting costs and other employment-related expenses

Potential decline in major expenses like mortgage payments, childcare, or education costs

GETTING TO 80% INCOME REPLACEMENT: WHAT IT TAKES.



After a slow shift toward states' permission to participate in the 1950s, Social Security is now a common component of public sector retirement income.

However, fully **20%** of public sector plans still don't include it.

The TIAA Institute's analysis assumes 30 years of service, and each widely used plan type demonstrates the potential to ensure adequate retirement income. No design lever approaches the scale of Social Security.

Defined benefit plans *without* Social Security don't reach the **80%** income replacement target. For these plans, a supplemental deferred compensation plan (a 457 plan) that comes with access to lifetime income is needed to bridge the gap. DB plans that *include* Social Security need a benefit multiplier of at least **1.6%**. Current plans nearly all meet (or even exceed) low earners' needs, but only a third meet the target for high earners. This population is best positioned to benefit from supplemental savings and annuitization.

Hybrid plans are triple-decker sandwiches that need all three income layers working together: Social Security, the DB component, and a DC component that includes lifetime income, with a combined employer-employee contribution rate of at least **6%**. Without Social Security, the combined contribution rate would need to be much higher—at least **14%**.

Cash balance plans need returns meaningfully above the **4%** minimum, Social Security, and a combined contribution rate of **12%**. Three of four cash balance plans meet the bar if crediting closer to **7%** than **4%**.

Defined contribution plans need Social Security, in-plan access to lifetime income, and combined contributions of **12–15%**. Without Social Security, contributions must rise to at least **22%** to hit the target.

THE LANDSCAPE

FOUR PRIMARY
PLAN DESIGNS.



In-plan annuities—especially in DC and hybrid plans—materially raise the probability of adequate income.



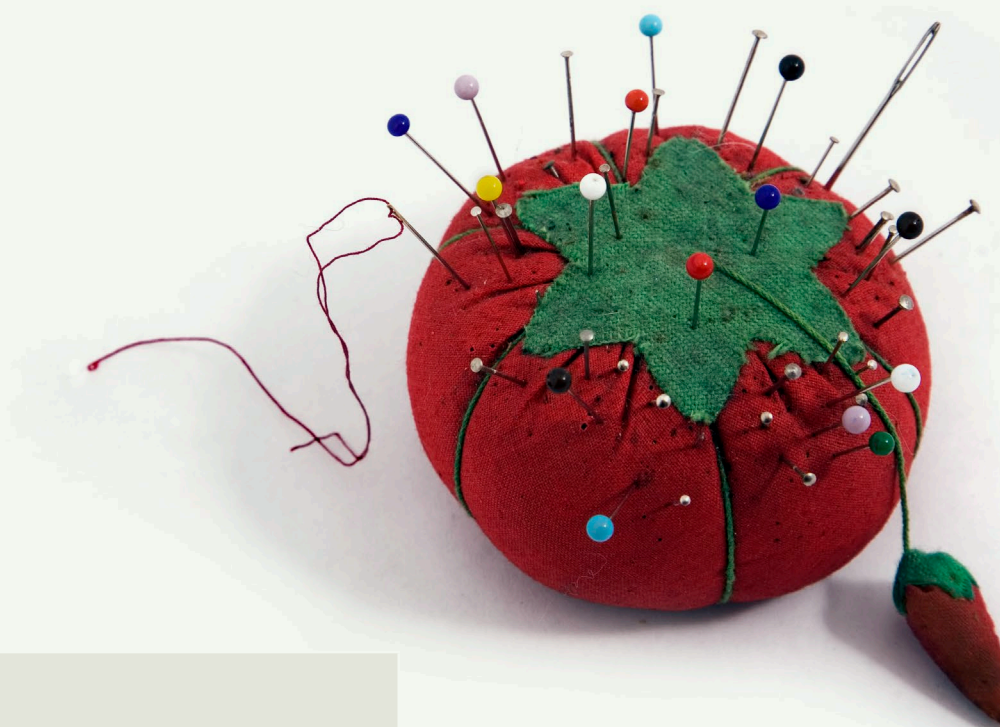
Plan type	Prevalence	Core strength	Core risk
Defined benefit (DB)	Primary in 35+ states	Guaranteed lifetime income	Small changes in years of service, final salary, and the benefit multiplier can drive large income differences; A single percentage point drop in the benefit multiplier can reduce the replaced income from 75% to 48% .
Hybrid (DB + DC)	12 states	Diversifies income sources	Works only when all three layers—Social Security and the DB and DC components—deliver lifetime income.
Cash balance	4 states	Employer-funded floor	4% minimum credit alone is insufficient to replace income, even with Social Security.
Defined contribution (DC)	Offered in 13 states, primary in 4	Portability, budget predictability for employers	Income adequacy depends on contributions + in-plan annuity access; The common 4% withdrawal approach does not deliver 80% replacement on its own.

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**Across every plan design,
guaranteed income—via DB
pensions, annuitized DC balances,
or Social Security—is what
separates adequate plans from
insufficient ones.**

80% income replacement cheat sheet.

Defined benefit (DB)	Don't include Social Security	+	Include access to lifetime income in supplemental DC savings plans ; use a benefit multiplier of at least 2.7%		
	Include Social Security	+	Use a benefit multiplier of at least 1.6%		
Hybrid (DB + DC)	Include Social Security	+	Include access to lifetime income in the DC portion of the plan	+	Have a combined employee-employer contribution rate of at least 6%
Cash balance		+	Provide returns above the required minimum	+	Have a combined employee-employer contribution rate of 12%
Defined contribution (DC)		+	Include access to lifetime income	+	Have a combined employee-employer contribution rate of 12–15%
	Don't include Social Security	+	Include access to lifetime income	+	Have a combined employee-employer contribution rate of 22%



TAILORING PLANS

ACTIONS PLAN SPONSORS CAN TAKE.

Audit against the 80% benchmark. Model replacement rates for low, median, and high earners separately, because averages can mask high-earner shortfalls.

Treat lifetime income as a plan-design requirement, not an option. In-plan annuities—especially in DC and hybrid plans—materially raise the probability of adequate income.

Auto-enroll employees into supplemental 457 plans, particularly in systems without Social Security or with lower benefit multipliers.

Stress-test the multipliers and salary-averaging formulas. Small changes have outsized impacts.

Offer a Social Security bridge strategy in supplemental plans so participants can delay claiming Social Security until benefits peak at or near 70, for higher monthly payouts.

Confirm contribution adequacy. DC-only plans without Social Security need **22%+** combined contributions to succeed.





LOOKING AHEAD

WEAVING LIFETIME INCOME INTO EVERY PLAN.

Between rapid technological change and ongoing political, cultural, and market uncertainty, plan sponsors can't assume that what worked yesterday will work tomorrow. As hybrid and DC-only options continue to expand across the states, the need for dependable lifetime income access only grows.

The common thread running through every successful plan is guaranteed income in some form. The task ahead for sponsors is to ensure that thread is woven into every plan across all states, so that those who devote their careers to public service can retire with the dignity and security they deserve.

DIVE DEEPER



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1. TIAA Institute, "[The common thread: What's woven into the most successful state retirement plans](#)," 2025.
2. National Council of Insurance Legislators (NCOIL), April 2025.

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