

UC Berkeley Center for Labor Research and Education  
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## Most Kentucky Teachers Are Significantly Better Off with Pensions than 401(k)s

By Nari Rhee

The UC Berkeley Center for Labor Research and Education analyzed the career patterns of Kentucky teachers in order to estimate their retirement income from an idealized 401(k) plan, compared to the lowest-tier pension offered by the Kentucky Teacher Retirement System (TRS) for those hired since 2008. The results of our analysis indicate that the current Kentucky TRS pension is better matched to meet the retirement needs of the teaching workforce than a 401(k)-style plan.

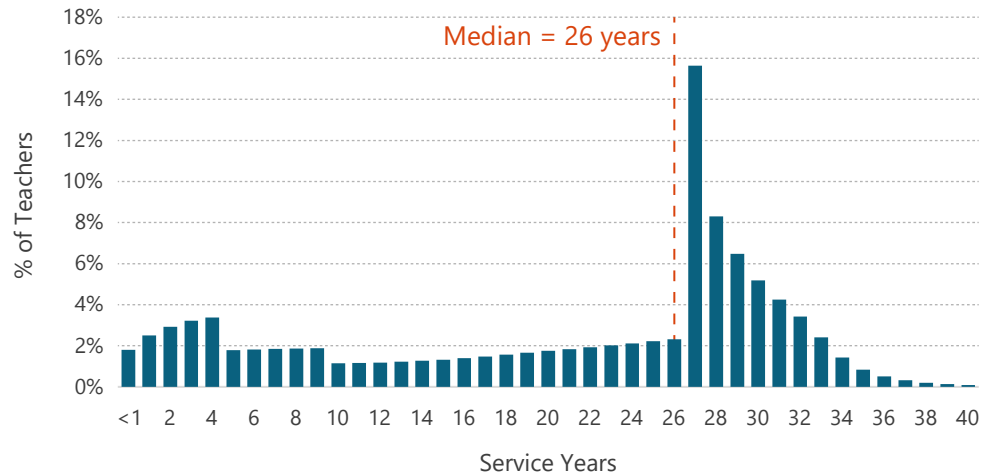
### Highlights

1. Two-thirds (64%) of Kentucky teachers will serve at least 20 years in the state. A typical classroom teacher today can be expected to separate from service at age 55, and half of teachers can be expected accumulate at least 26 years of service.
2. The TRS pension helps retain experienced teachers by encouraging them to stay until at least early retirement age, when benefits become more valuable.
3. For 76% of Kentucky teachers, the TRS pension delivers greater, more secure retirement income compared to an idealized 401(k) with equivalent cost.
4. For a typical Kentucky teacher—separating at age 55 with 26 years of service—it would cost 48% more to achieve the same retirement income through a 401(k) as they would get from their current TRS pension.

## Most Kentucky public school classrooms are filled by long-term teachers

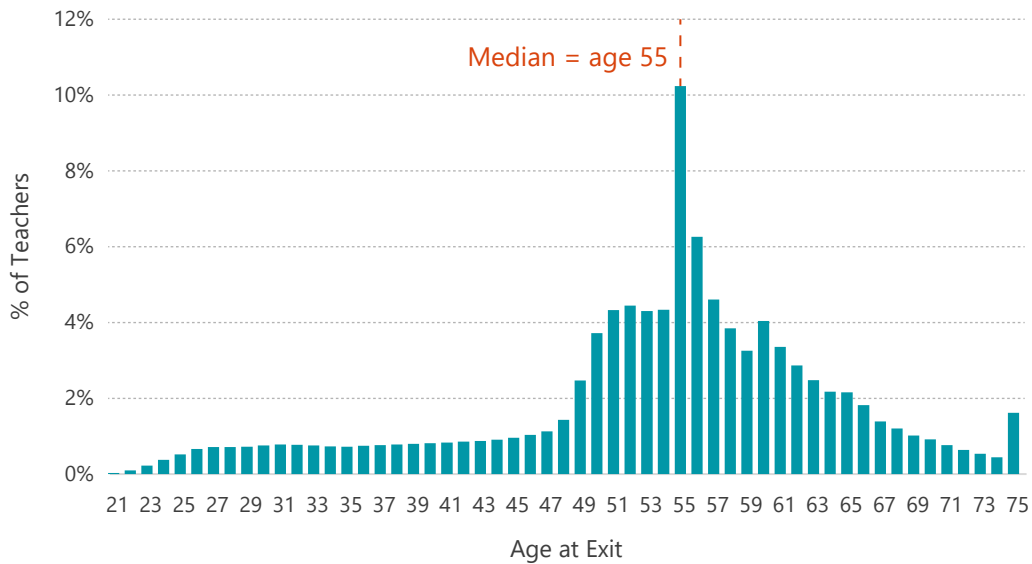
Projected Service Years	% of Teachers
0 to 4	13.8%
5 to 9	9.2%
10 to 14	6.0%
15 to 19	7.4%
20 to 24	9.6%
25 to 29	34.9%
30 to 35	16.7%
35+	2.3%
Total	100.0%

### Projected Years of Service at Exit, Kentucky Teachers



## The vast majority of Kentucky teachers will serve until their 50s and 60s

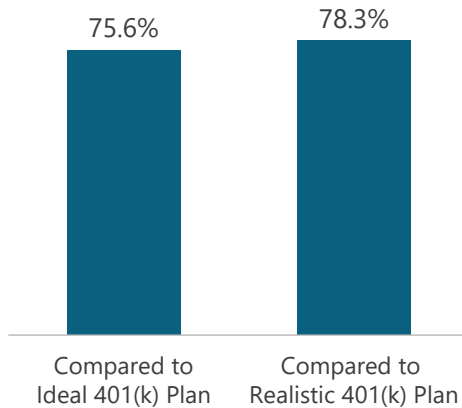
### Projected Age at Exit, Kentucky Teachers



**3 out of 4 Kentucky Teachers will receive greater, more secure retirement income from their TRS pension than an idealized 401(k) that receives the same contributions.**

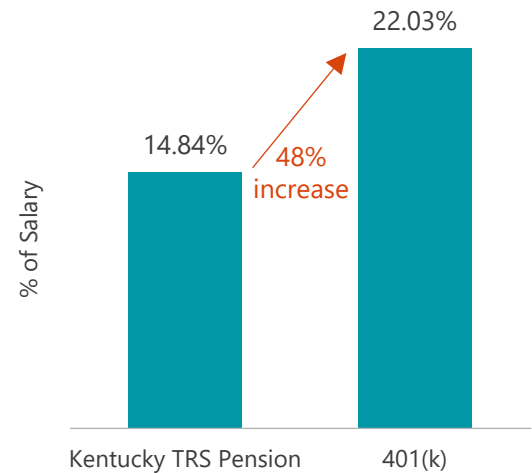
**A typical Kentucky teacher will need 48% higher retirement contributions to achieve the same retirement income through a 401(k) as they would earn through the lowest-tier TRS pension.**

Share of Kentucky Teachers Who Will Receive Higher Benefits from Pension than 401(k)



Note: Benefit model assumes .25% fee for Ideal 401(k), and an additional 1% drag on returns for Realistic 401(k) from typical individual investor behavior.

Retirement Benefit Cost for Typical Kentucky Teacher: Pension vs 401(k)



Note: Analysis is based on lowest-tier TRS pension, for those hired since 2008, for a teacher leaving at age 55 with 26 years of service.

This study was sponsored by the National Institute on Retirement Security. We projected exit ages and service years for teachers using granular age-service tables for active membership obtained from Kentucky TRS, and rates of teacher retirement/death/disability/withdrawal and salary growth from the Kentucky TRS 2017 Actuarial Valuation Report, 2017 CAFR, and 2016 Actuarial Experience Study. We estimated 401(k) benefits assuming investment of the TRS pension normal cost (the cost of the current year's benefits as percentage of payroll), 14.84%, in a typical Target Date Fund. TDF returns were calibrated to the inflation assumption used by TRS. In order to compare monthly pension benefits to 401(k) account balances on apples-to-apples terms, we calculated the lump sum necessary to purchase the same life annuity from a private insurance company based on a 5% interest rate, 0.5% load, and the same mortality assumptions used by TRS. Further details on career projection and benefit modeling methodologies can be found in Nari Rhee and William Forna, 2016, "Are California Teachers Better Off with a Pension or 401(k)?," UC Berkeley Center for Labor Research and Education, 2016.

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### About the Author

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