UAA Institute of Social and Economic Research
University of Alaska Anchorage

Alaska's Teacher Retirement System: Design and Workforce Outcomes

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Roadmap

Retirement Generosity
- Retention
- Recruitment

Retirement Plan Type
- Retention
- Recruitment

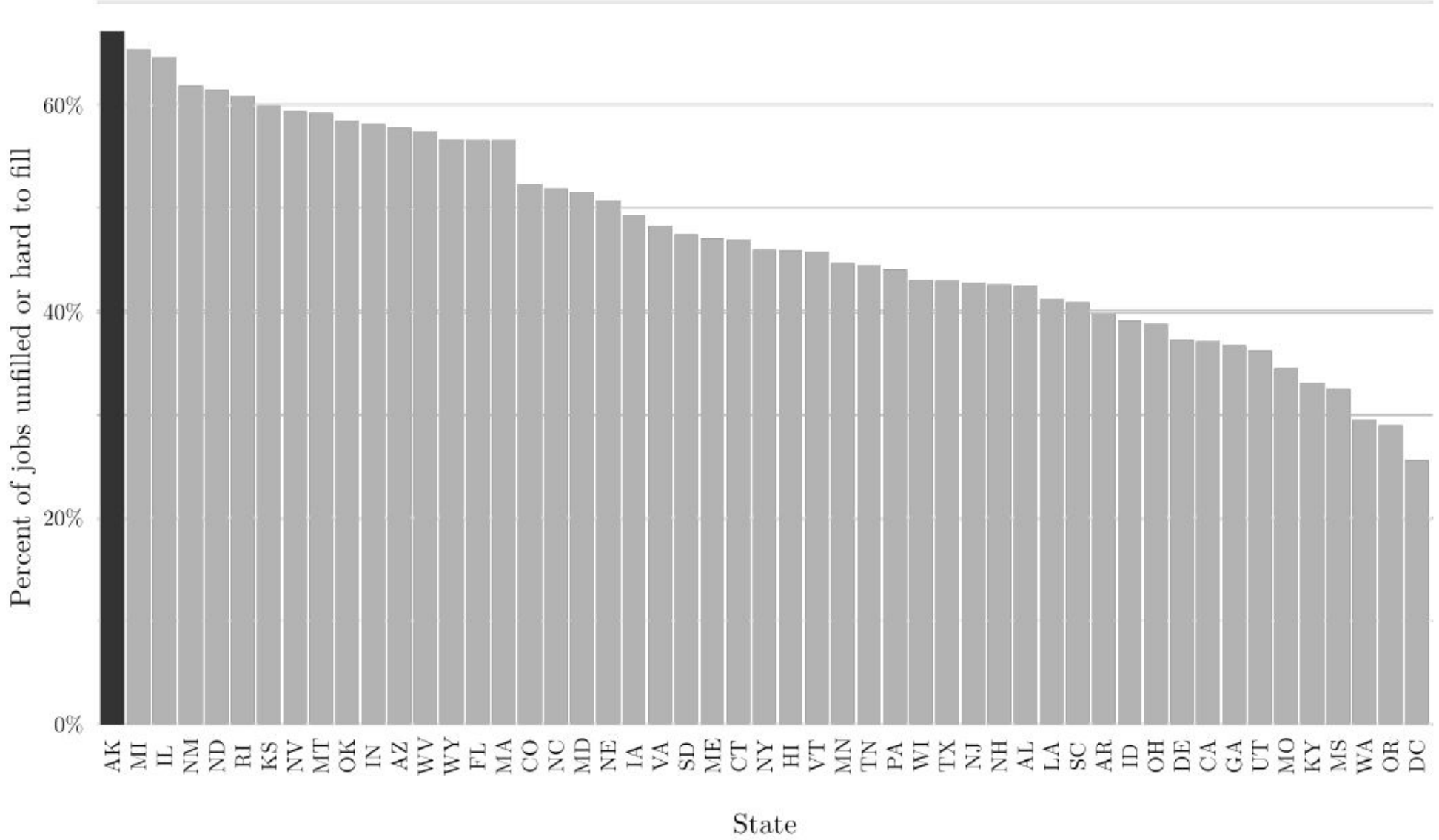
Conclusion

Disclaimer

Study Independence & Scope
This presentation reflects the work and conclusions of the author.
None of the work presented should be attributed to ISER, UAA, or research sponsors.

Interpretation
None of the research should be interpreted as ISER endorsement of any policy option.
This is intended to inform decision-making.

School Job Vacancies By State – 2024



Notes: This figure shows the percent of unfilled or hard to fill positions by state. This uses data from the Learning Policy Institute (2024). Highlighted in dark gray is Alaska, which has the highest rate of school job vacancies at 67%.

Retirement Generosity

Retirement Generosity and Retention

Retirement generosity: the overall value of retirement benefits provided through defined benefit pensions or defined contribution plans (e.g., 401(k)s).
Example: a 5 percent employer match versus a 7 percent employer match

Economic theory suggests retirement benefits can serve as strategic compensation to increase worker retention by rewarding longer tenure (Lazear, 1990).

Empirical evidence suggests more generous retirement benefits improve retention, though some subpopulations may be less responsive
(Quinby & Wettstein, 2021; Koedel & Xiang, 2017)

Retirement Generosity and Retention

NFAREEA Act: Federal workers in Alaska and other non-foreign areas historically received COLA that did not count toward pensions.

- Replaced COLA with locality pay included in retirement calculations.
- Resulted in higher pension annuity values for affected federal employees.
- Provides a policy shock to study the effects of retirement generosity on labor outcomes.

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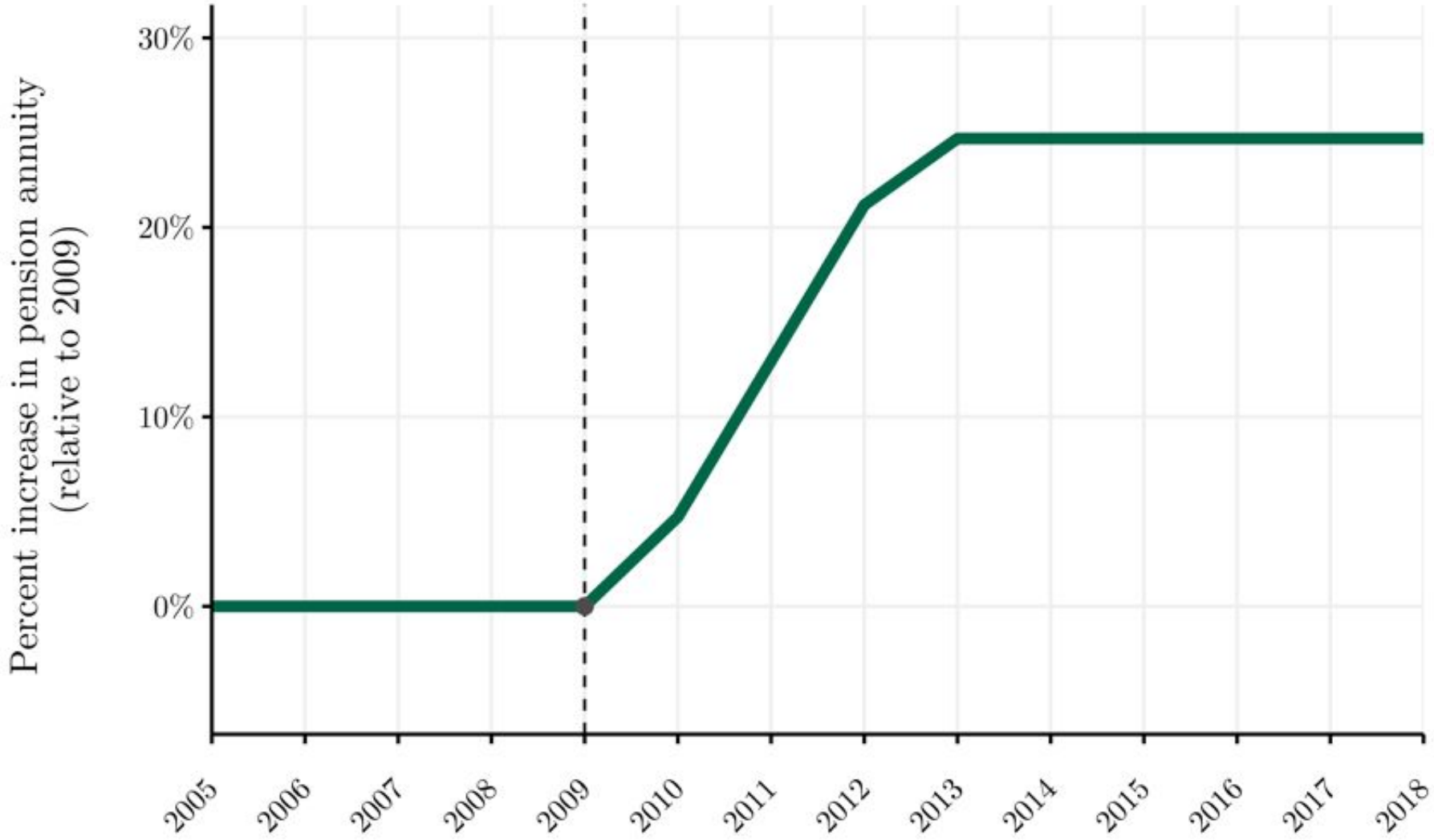
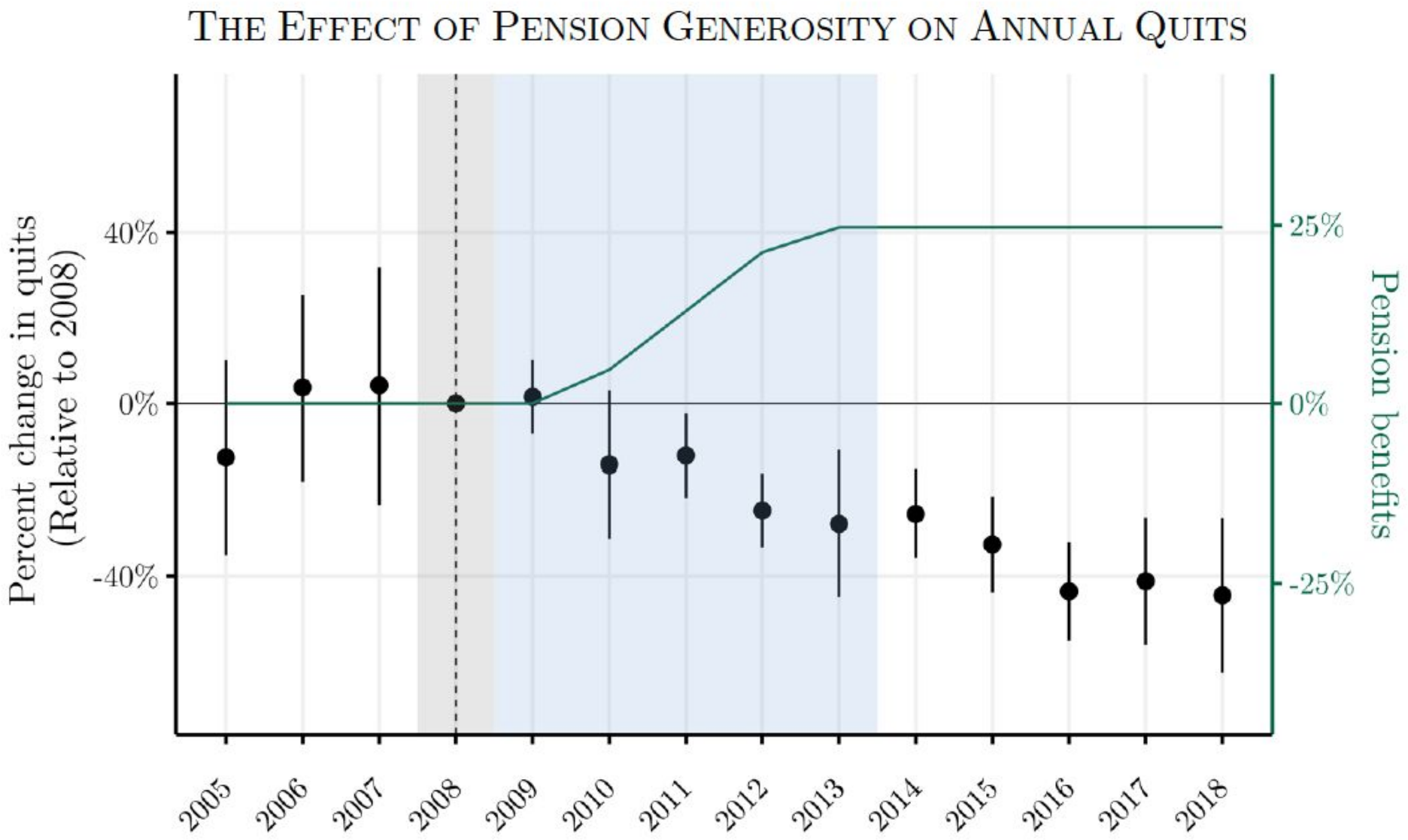
Effect of NFAREAA on Pension Benefits



Notes: This figure shows the increase in pension generosity for federal workers residing in Alaska over time. NFAREAA increased pension generosity for workers over a three-year period starting in 2010. By 2013, all Alaskan federal workers received the full increase in their pension annuity formula.



Notes: The gray shaded area represents the year prior to the policy being enacted and the reference year. The blue shaded area represents when the transition period—the years where pension generosity increased incrementally. The black points represent the difference in annual quits for Alaska and Hawaii compared to all other states. From 2014 to 2018, there was an average decrease of annual quits by 30 percent.

Retirement Generosity and Recruitment

Recruitment effects of retirement generosity are mixed

Some studies find no effect (Krueger 1988; Wilson 2025).

Others find improved recruiting from more generous DC plans, particularly for older and higher-income workers (Cole & Taska 2023).

Retirement Generosity and Recruitment

Potential mechanisms:

- Visibility of retirement benefits
  - DC plans: simple and visible (e.g., “4% employer match”).
  - DB pensions: complex formulas make benefits less transparent to applicants.

- Worker heterogeneity

Retirement Plan Type

Recruitment and Retirement Plan Type

Survey evidence suggests teachers may value DC plans more compared to DB:

- Fuchsman et al. (2023): value ≈ 2.5% salary increase.
  - Nationally representative sample

- Johnston (2025): Switching from a traditional pension to a DC plan is equivalent to about a $907 salary increase for teachers.
  - Large school district in Texas

Retention and Retirement Plan Type

Theory suggests defined benefit pensions increase retention by rewarding long tenure.

Evidence on the impact of switching from defined benefit to defined contribution (DC) plans is mixed:

- Ni & Podgursky (2016): higher retention under DC plans.
- Other studies suggest DC plans may increase worker mobility.

Alaska DB-DC (Burke and Wilson 2025)

In 2006 Alaska shifted teachers from a Defined Benefit (DB) to a Defined Contribution (DC) retirement system.

This creates a natural experiment to study how retirement plan design affects:

- Recruitment
- Retention

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Alaska DB-DC (Burke and Wilson 2025)

We model retirement benefits under TRS Tier II (defined benefit) and TRS Tier III (defined contribution) following Quinby (2019)

The defined contribution plan produces a slight decrease in average benefit generosity.

However, it introduces substantially greater variability in potential retirement outcomes.

In contrast, the defined benefit plan provides predictable benefits with little variation in outcomes.

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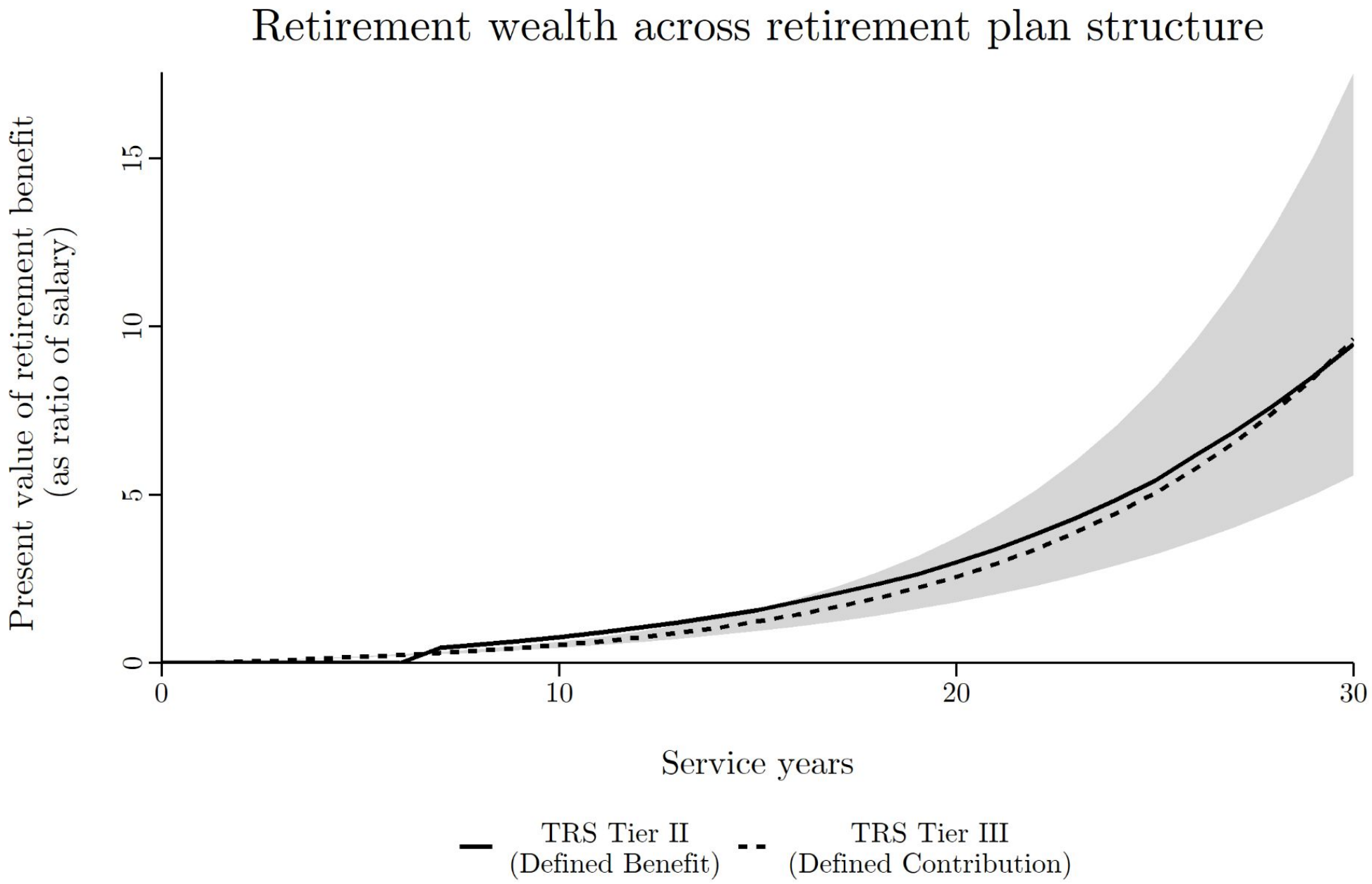


Notes: This figure shows the estimated retirement value as a worker progresses into their career, illustrating how benefits accumulate under each retirement plan structure. The shaded gray area represents the volatility in stock market returns.

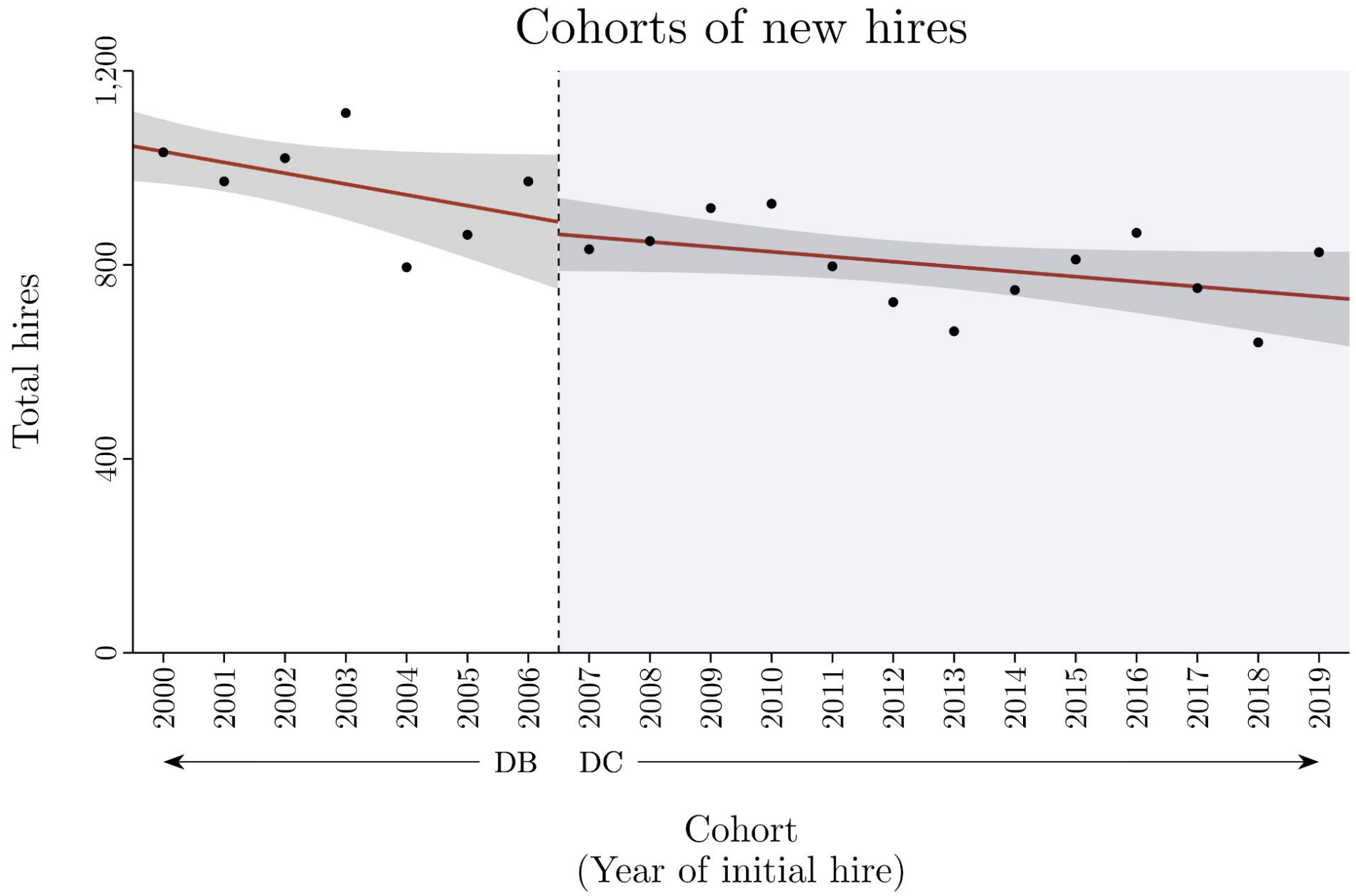
Methodology

State of Alaska changed the teacher retirement plan for new hires starting July 1, 2006:

- Teachers hired before July 1, 2006 entered the Defined Benefit plan.
- Teachers hired on/after July 1, 2006 entered the Defined Contribution plan.

This creates a sharp cutoff in time: the plan type changes based on hire date.

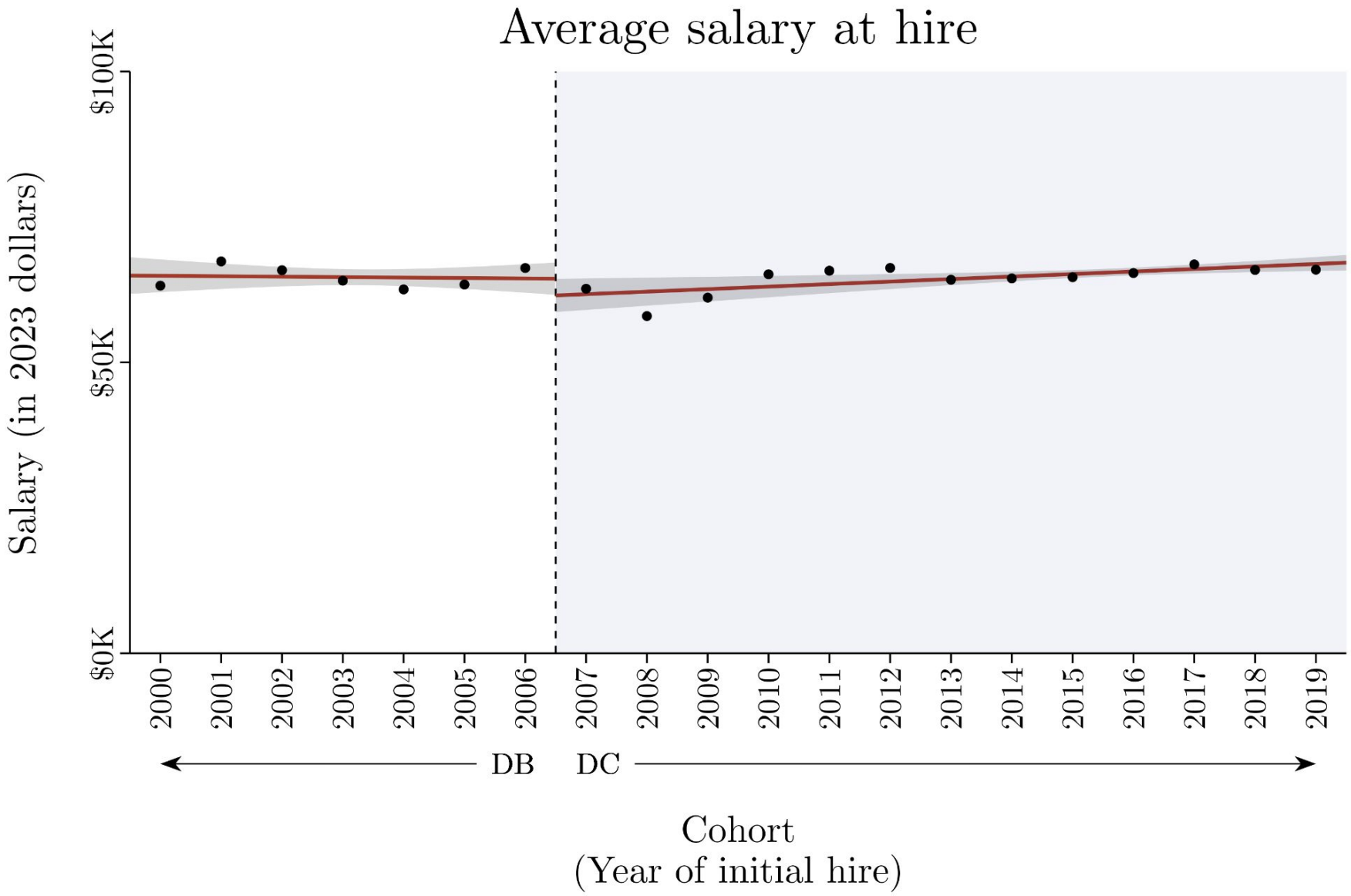
Why this is useful: Because the plan assignment is largely mechanical at the cutoff, teachers hired just before vs just after the cutoff experience different “treatments” (retirement plan structure).



Notes: This figure shows the total number of teachers hired in Alaska public schools by cohort year. The dotted line represents the year when newly hired teachers were transitioned into the defined contribution plan.

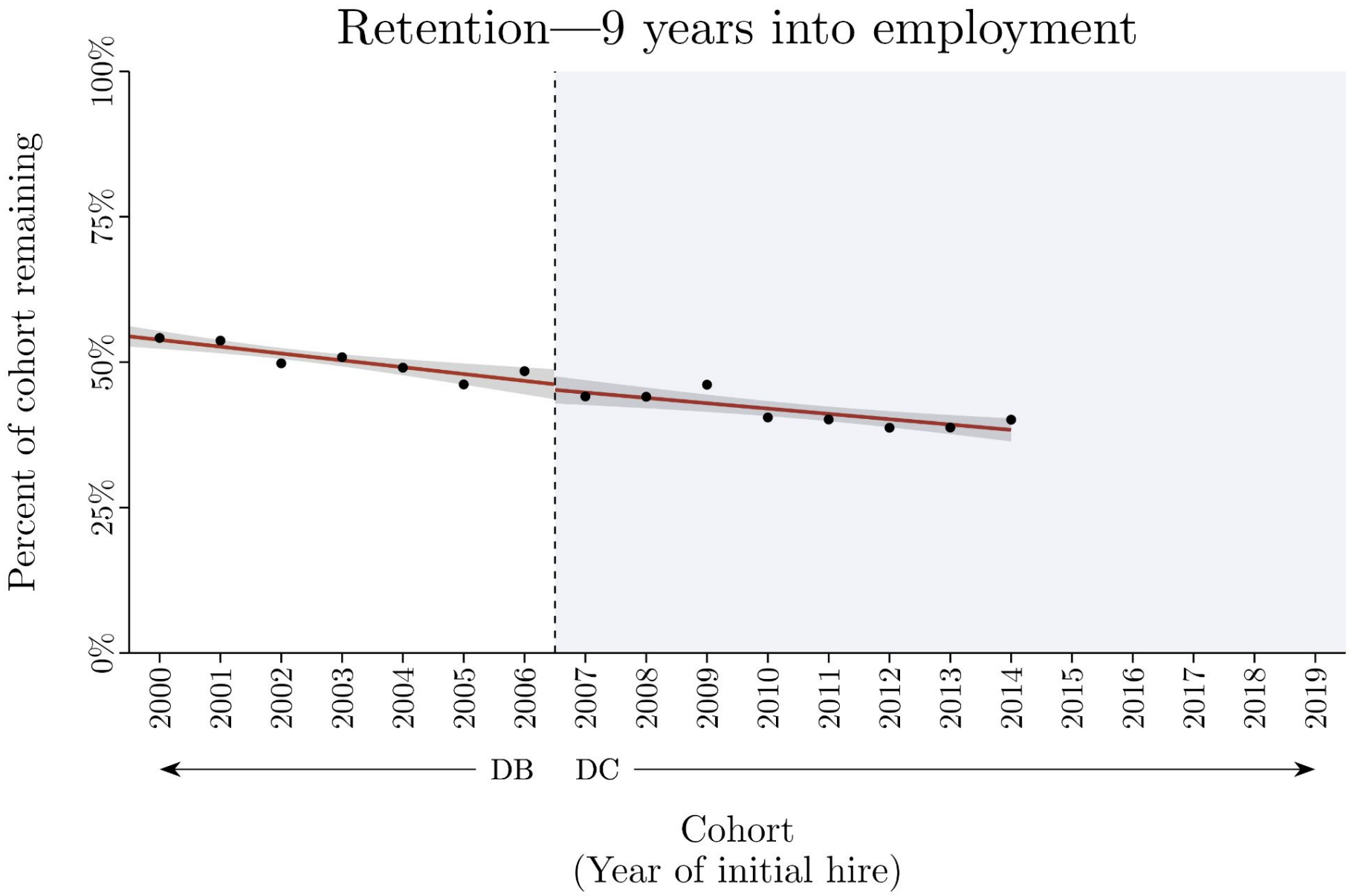
Recruitment

Notes: This figure shows the average age of newly hired teachers by cohort year. The dotted line represents the year when newly hired teachers were transitioned into the defined contribution plan.

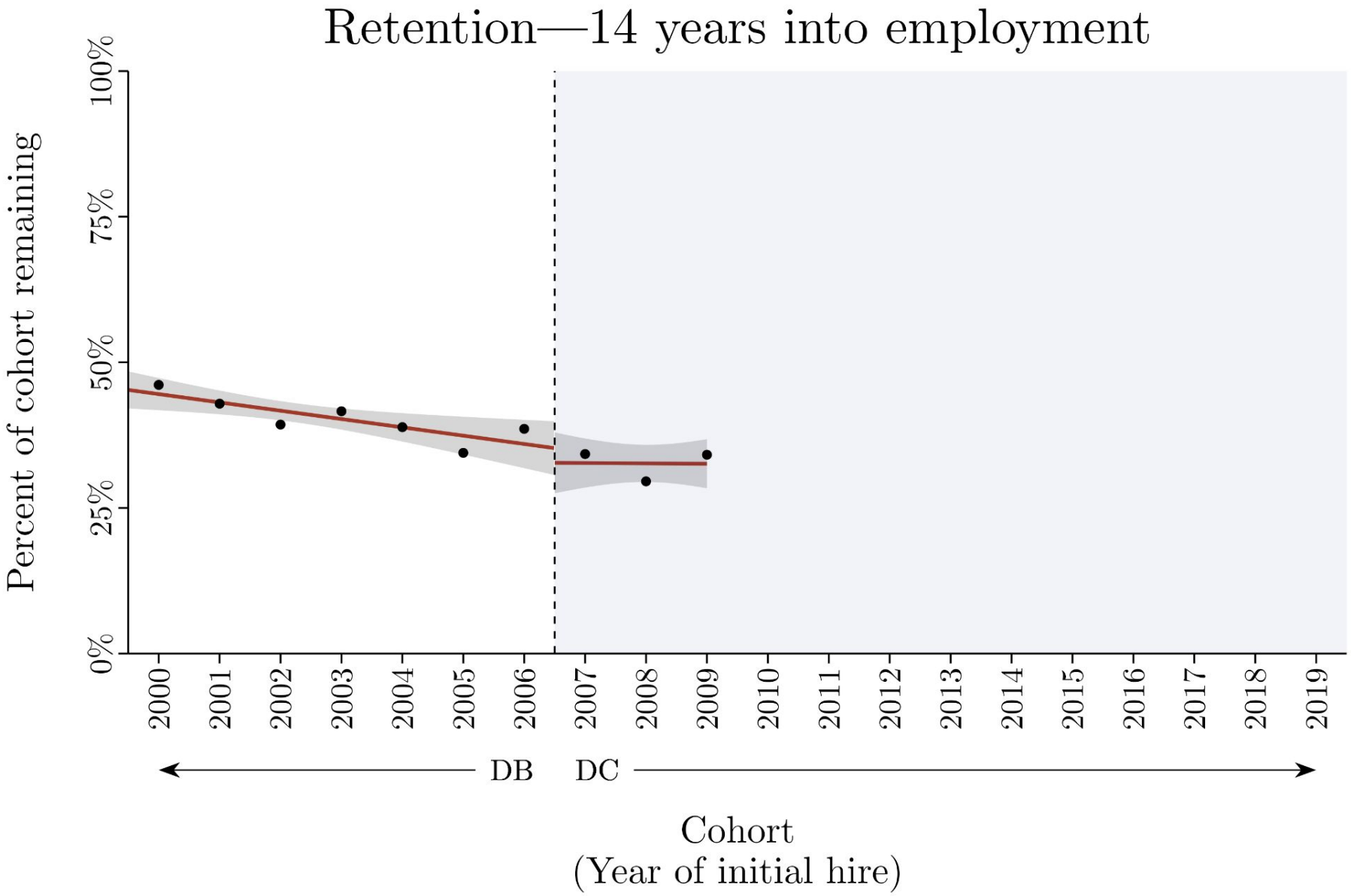


Notes: This figure shows the average starting salary of teachers by cohort year. The dotted line represents the year when newly hired teachers were transitioned into the defined contribution plan.

Retention



Notes: This figure shows the percent of teachers remaining in Alaska public schools after nine years of employment by cohort year. The dotted line represents the year when newly hired teachers were transitioned into the defined contribution plan.



Notes: This figure shows the percent of teachers remaining in Alaska public schools after 14 years of employment by cohort year. The dotted line represents the year when newly hired teachers were transitioned into the defined contribution plan.

Limitations

- Current data allow us to observe teachers for up to 14 years after hiring.
- Retirement plan differences may have stronger effects later in a career, particularly near retirement eligibility.
- Some subpopulations may be more or less responsive; however statistical power is limited due to sample size.

Conclusions

- Retirement plan design plays an important role in shaping workforce recruitment and retention.

- Existing body of economic evidence suggests that the type of retirement plan (holding constant overall generosity) has limited effects on recruitment and retention.

- Generosity of retirement benefits (e.g., more generous pensions or 401(k)-style plans) has strong theoretical and empirical support for influencing workforce recruitment and retention.

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