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## **Panel 4: State and Local Labor Markets**

Retirement and Disability Research Consortium  
22<sup>nd</sup> Annual Meeting  
August 6, 2020

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# *Disability Insurance for State and Local Employees: A Lay of the Land*

Anek Belbase, **Laura D. Quinby**, and James Giles  
Center for Retirement Research at Boston College

22<sup>nd</sup> Annual Meeting of the Retirement and Disability Research Consortium  
Online Event  
August 6, 2020

# Could state and local DI programs be used to study how benefit design affects claiming and other outcomes?

- Social Security Disability Insurance (SSDI) serves as a much-needed economic safety net for workers who can no longer continue in the labor force.
- Debate is ongoing about how best to design a DI program that protects households from loss of income without discouraging work.
- State and local employees are covered by many different DI programs about which little is known.

# This potential variation in DI policy is particularly important for public employees without Social Security coverage.

- About one-quarter of state and local government employees (6.5 million workers) do not have Social Security coverage on their current job.
- Federal regulations (IRC Section 3121) ensure that *retirement* benefits for uncovered workers meet minimum generosity standards.
- But DI benefits are not similarly regulated.



# Consequently, the goals of this study are threefold:

1. Create a publicly available database of state and local DI programs.
2. Survey the state and local DI landscape, with an eye toward policy variation that could be related to substantive outcomes of interest, such as claiming.
3. Assess whether the benefits earned by uncovered workers are comparable to SSDI.

# The first step was to create a database of state and local eligibility requirements, benefit formulas, and DI rolls.

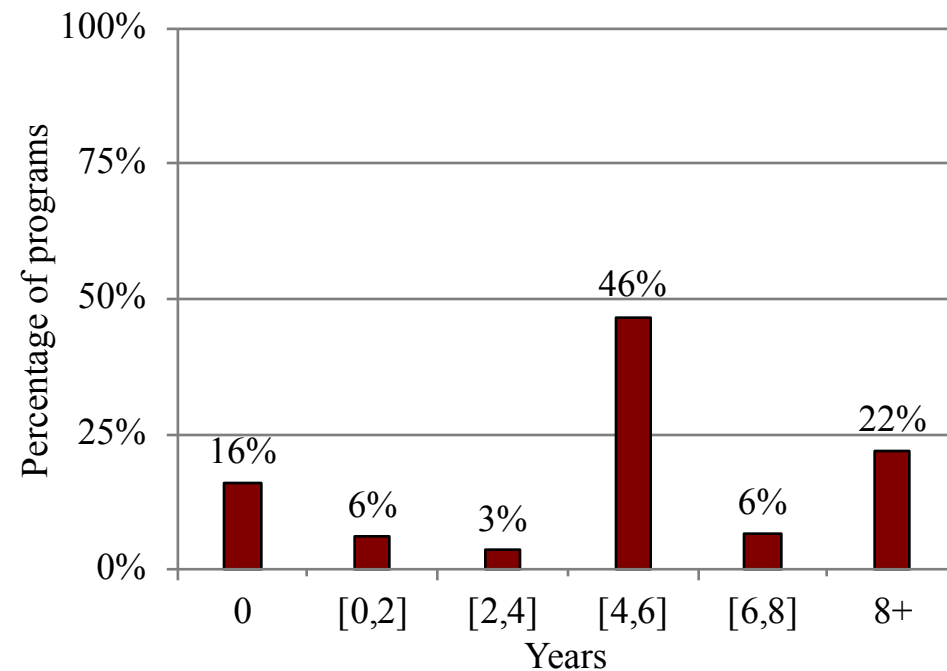
- State and local DI programs are administered by retirement systems that also provide pension benefits.
- This study focused on the 100 largest systems in the *Public Plans Database*.
- The database reflects occupational variation across general employees, teachers, and public safety personnel, but focuses on provisions only for workers hired in 2020.

# The next step was to understand how state and local governments structure their DI programs.

- Governments have two primary levers to influence DI outcomes:
  - policies that regulate who can receive benefits; and
  - policies that regulate benefit generosity.
- Who can receive benefits is determined by the vesting period, work-ability, and a medical examination.
- Benefits are set by the formula: *final average salary \* tenure \* multiplier*

# For example, most programs restrict who can receive benefits by requiring employees to vest.

Vesting Requirements for State and Local DI Programs, 2020



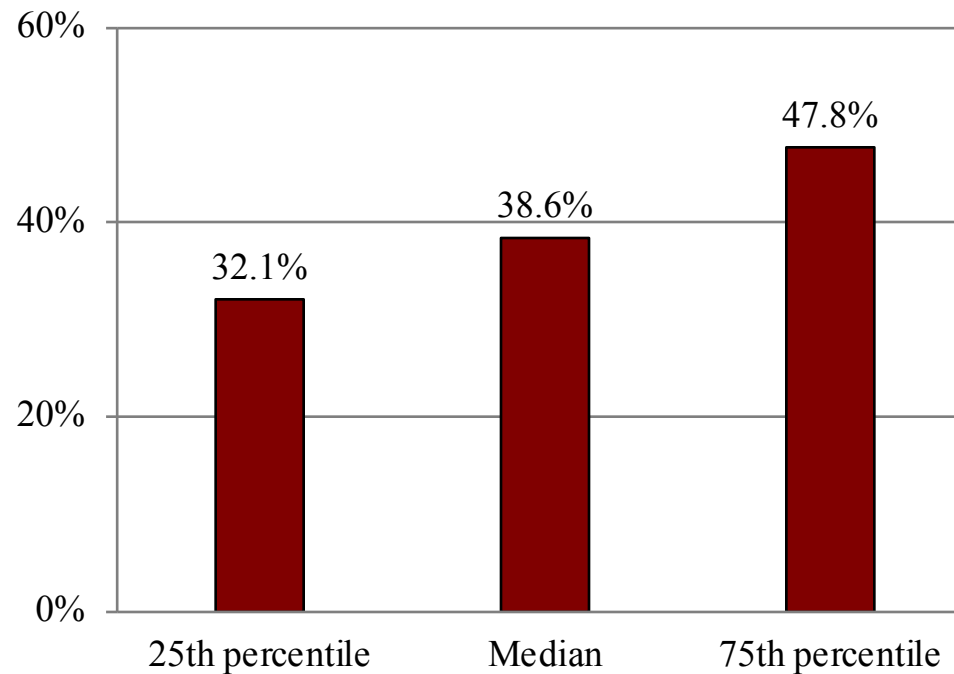
# And some further restrict access by tightening work-ability and medical evaluation requirements.

## Eligibility Requirements in State and Local DI Programs, 2020

Requirement	Percentage of programs
Disability scope requirement	
Previous or comparable job	75%
Any job in the national economy	19
Must qualify for SSDI	6
Medical evaluation requirement	
Own doctor	77
Independent evaluation always required	13
Independent evaluation required on an ad-hoc basis	10
Periodic re-evaluation of medical status	42

# Beyond these eligibility rules, governments can also affect outcomes through the generosity of benefits.

Distribution of Replacement Rates in State and Local DI Programs for a Hypothetical Worker with 20 Years of Tenure, 2020

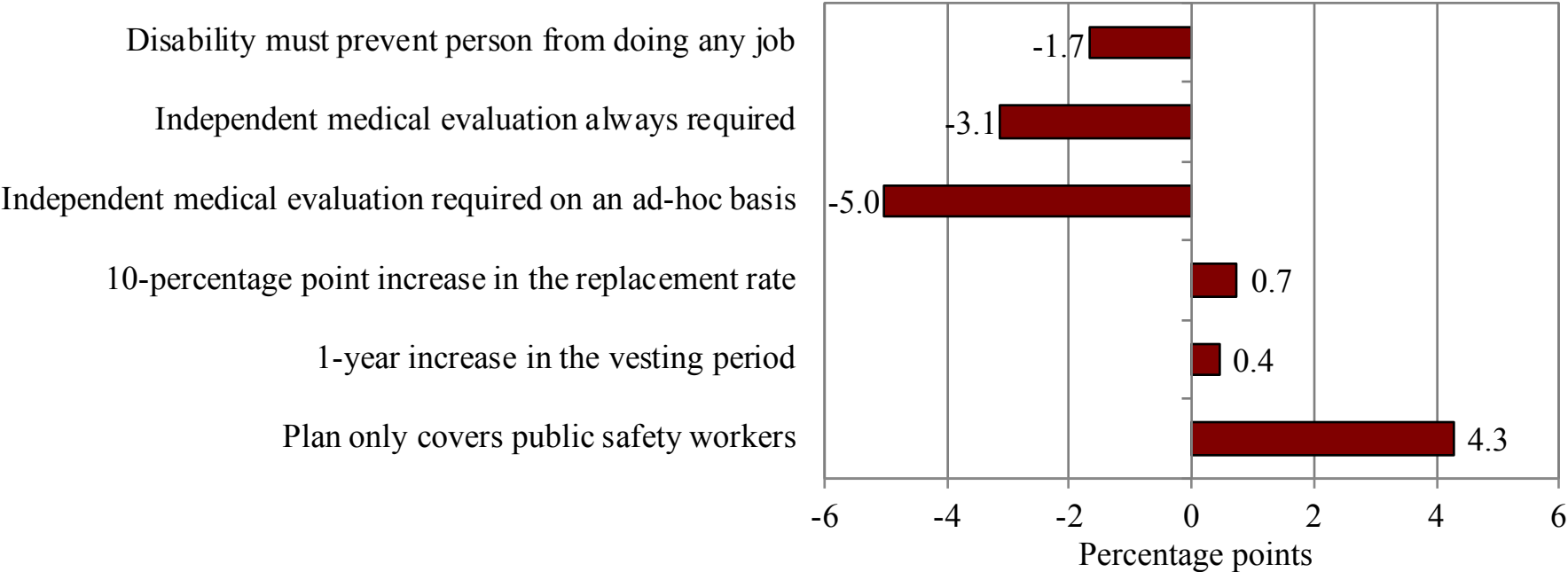


A natural question is whether this variation in program design relates to outcomes of interest, such as claiming.

- A full answer to this question is beyond the scope of this study.
- However, a simple regression illustrates how the data could be used in future research.
- This regression relates the fraction of all retirement-system beneficiaries who receive DI to various elements of program design.

# The results suggest that this new DI data could help explain how program design affects outcomes of interest.

Correlation between Program Structure and the Percentage of Beneficiaries Receiving DI, 2017



Note: All coefficients are statistically significant at least at the 5-percent level.  
Source: Authors' calculations from the *Public Disability Insurance Programs Dataset* (2020 forthcoming).

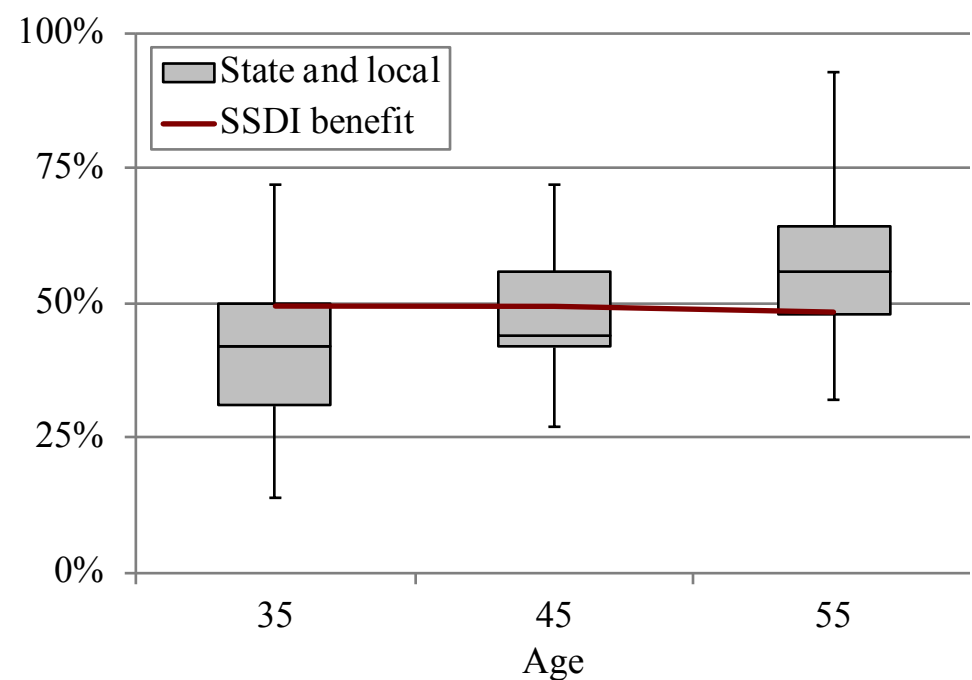


The last goal, assessing benefit adequacy for uncovered workers compared to SSDI, requires comparing eligibility rules and replacement rates.

- Eligibility criteria are less strict in state and local plans because they admit employees unable to perform their *current* or *previous* job, as opposed to SSDI's requirement that workers be unable to perform *any* job.
- Replacement rates were calculated for hypothetical workers with different lengths of government tenure.

# Results show that state and local benefits exceed SSDI for older workers, who are most at risk of needing DI.

Hypothetical Replacement Rates in State and Local DI Programs for Uncovered Workers Compared to SSDI, by Age, 2020



Source: Anek Belbase and Laura D. Quinby. 2020. “How Do DI Benefits for Uncovered Public Workers Compare to SSDI?” *State and Local Plans Issue in Brief* 71. Center for Retirement Research at Boston College.

# Conclusion

- This study investigates whether DI for public sector employees could be used to study how program structure affects claiming and other outcomes.
- A new database shows that state and local programs vary widely in their eligibility criteria, administrative processes, and benefit levels.
- And a simple analysis linking program structure to the share of beneficiaries on DI suggests a strong relationship.
- But much work remains; this study is intended to start a conversation, rather than settle the debate.

Center for Studying Disability Policy

# Geographic Determinants of Beneficiary Work Activity

**Jody Schimmel Hyde, Mathematica**

**Dara Lee Luca, Mathematica**

**Jonathan Schwabish, Urban Institute**

**Paul O'Leary, SSA**

***RDRRC Annual Meeting***

***August 6, 2020***

# Motivation

- / **There is well-documented geographic variation in disability prevalence and disability benefit receipt:**
  - Rupp 2012; Nichols et al. 2017; Sevak and Schmidt 2018; Gettens et al. 2018
- / **Less is known about geographic variation in beneficiary work activity and its determinants.**
- / **It is important to identify potential levers that could improve return to work among beneficiaries.**

# Analysis overview

- / **Document geographic variation across the United States in beneficiary outcomes:**
  - Disability reciprocity rate
  - New benefit awards
  - Employment and suspension/termination of benefits for work
- / **Understand the correlation between local-area characteristics and beneficiary outcomes**
  - Area: Public-Use Microdata Area (PUMA), defined by U.S. Census Bureau

# Measuring beneficiary outcomes and work activity

## / **Social Security Administration (SSA)'s Disability Analysis File**

- 2001 to 2018

## / **Any employment**

- Percentage of working-age beneficiaries with any positive earnings during the year
- Based on earnings in the Master Earnings File (reported to the Internal Revenue Service)



# Demographic and socioeconomic characteristics

## / American Community Survey (PUMA level, 2005 to 2018)

- Demographics
  - age, sex, marital status, educational attainment, veteran status, foreign born, population density
- Health factors
  - share with disabling condition, share with private insurance (2008-)
- Economic and other factors
  - poverty rate, unemployment rate, employment rate among people with disabilities, industry composition, Supplemental Nutrition Assistance Program receipt, average monthly rent, average house value, percentage work from home, percentage who take public transportation to work

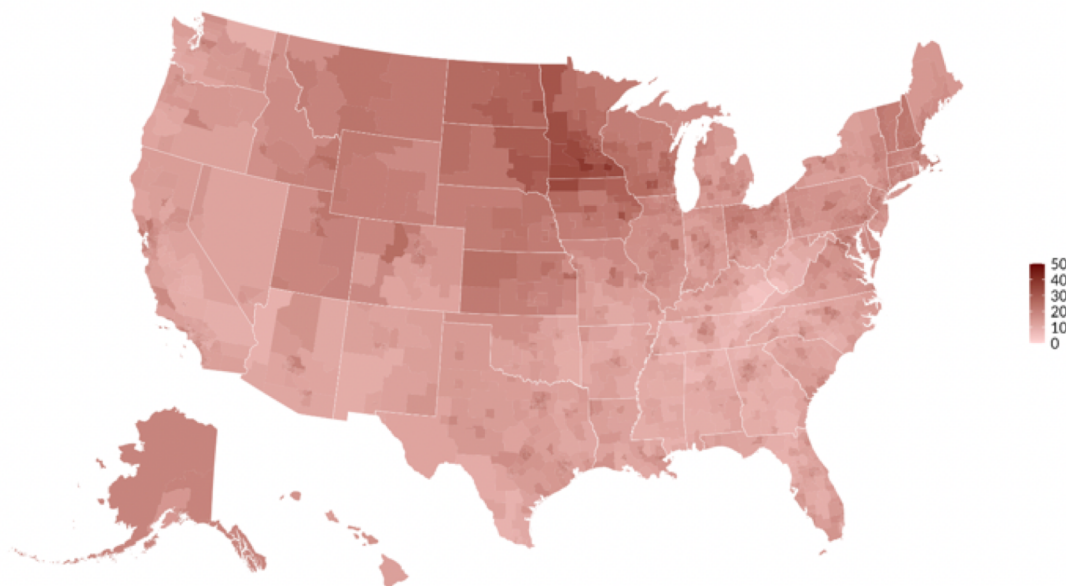
## / Behavioral Risk Factor Surveillance System (state-level, 2001 to 2018)

- Percentage current smoker
- Percentage overweight or obese

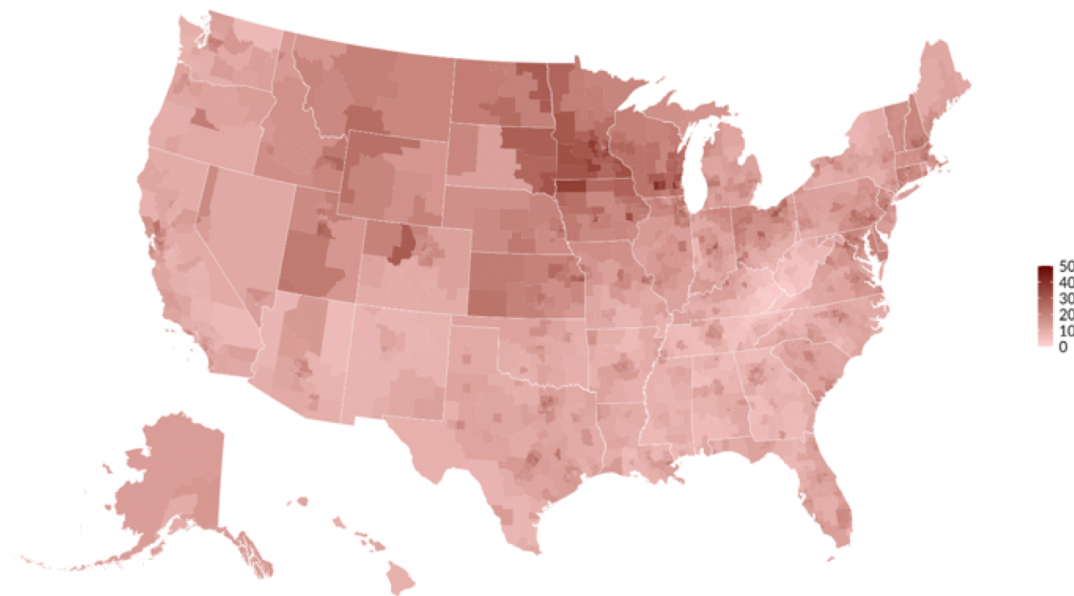


# Variation in beneficiary work activity by PUMA, 2017

Percentage of working-age DI beneficiaries who were employed at some point during the year



Percentage of working-age SSI beneficiaries who were employed at some point during the year



Source: Authors' calculations using SSA's Disability Analysis File linked to the Master Earnings File.

Note: Beneficiaries include individuals in current payment status or suspense in the relevant program in at least one month during the year, and who were age 18-full retirement age on January 1 of the same year. Employment is defined as any positive earnings reported to the IRS in the year.

# Factors associated with beneficiary work activity

## Positive

- Percentage of people employed in manual labor
- Average housing value
- Average rent
- Average wage and salary income
- Employment rate among people with disabilities

## Negative

- Percentage obese or overweight
- Supplemental Nutrition Assistance Program receipt
- Percentage current smoker
- Unemployment rate
- Poverty rate

# Conclusion

- / **Substantial variation in beneficiary work activity across PUMAs, even within state**
- / **Key factors to explain subsequent work activity:**
  - Availability of and access to economic opportunity
  - Risky health behaviors
- / **Policy implications**
- / **Dataset will be available in public repository**
  - Includes other SSA outcomes

# Contact information and references

/ **Dara Lee Luca:** [dleeluca@mathematica-mpr.com](mailto:dleeluca@mathematica-mpr.com)

## / References

- Gettens, Jack, Pei-Pei Lei, and Alexis Henry. 2018. “Accounting for Geographic Variation in Social Security Disability Program Participation.” *Social Security Bulletin* 78(2): 29–47.
- Nichols, Austin, Lucie Schmidt, and Purvi Sevak. 2017. “Economic Conditions and Supplemental Security Income Application.” *Social Security Bulletin* 77(4): 27–44.
- Rupp, Kalman. 2012. “Factors Affecting Initial Disability Allowance Rates for the Disability Insurance and Supplemental Security Income Programs: The Role of the Demographic and Diagnostic Composition of Applicants and Local Labor Market Conditions.” *Social Security Bulletin* 72(4): 11–35.
- Schmidt, Lucy, and Purvi Sevak. 2017. “Child Participation in Supplemental Security Income: Cross- and Within-State Determinants of Caseload Growth.” *Journal of Disability Policy Studies* 28(3): 131–140.

# **The Prevalence of COLA Adjustments in Public Sector Retirement Plans**

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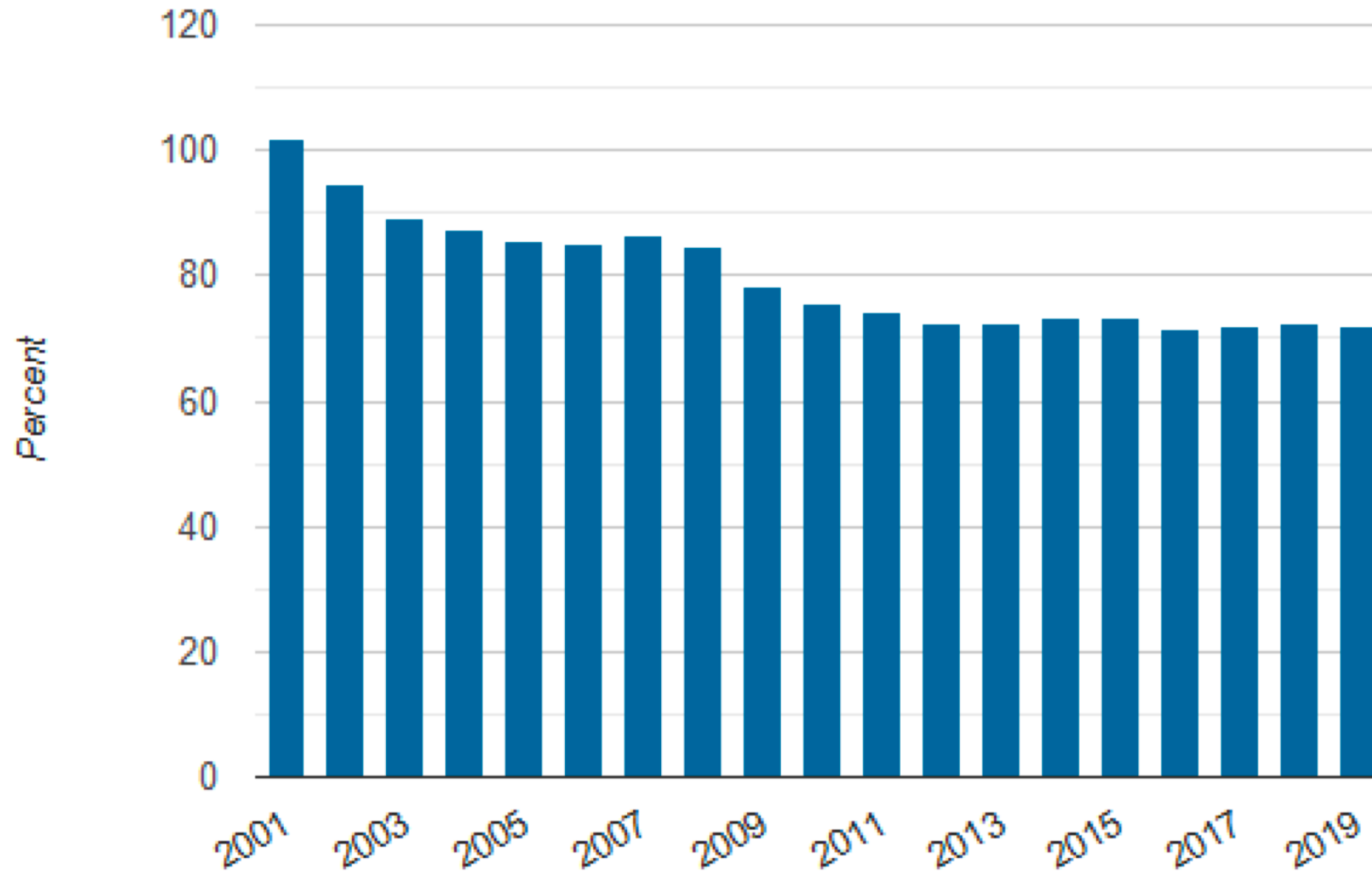
Maria D. Fitzpatrick, Cornell University & NBER  
Gopi Shah Goda, Stanford University & NBER

# Motivation

- Approx. 14% of the labor force consists of state and local employees who are eligible for retirement benefits from a state- or locally-administered retirement plan
- Many of these plans have long faced a funding gap...

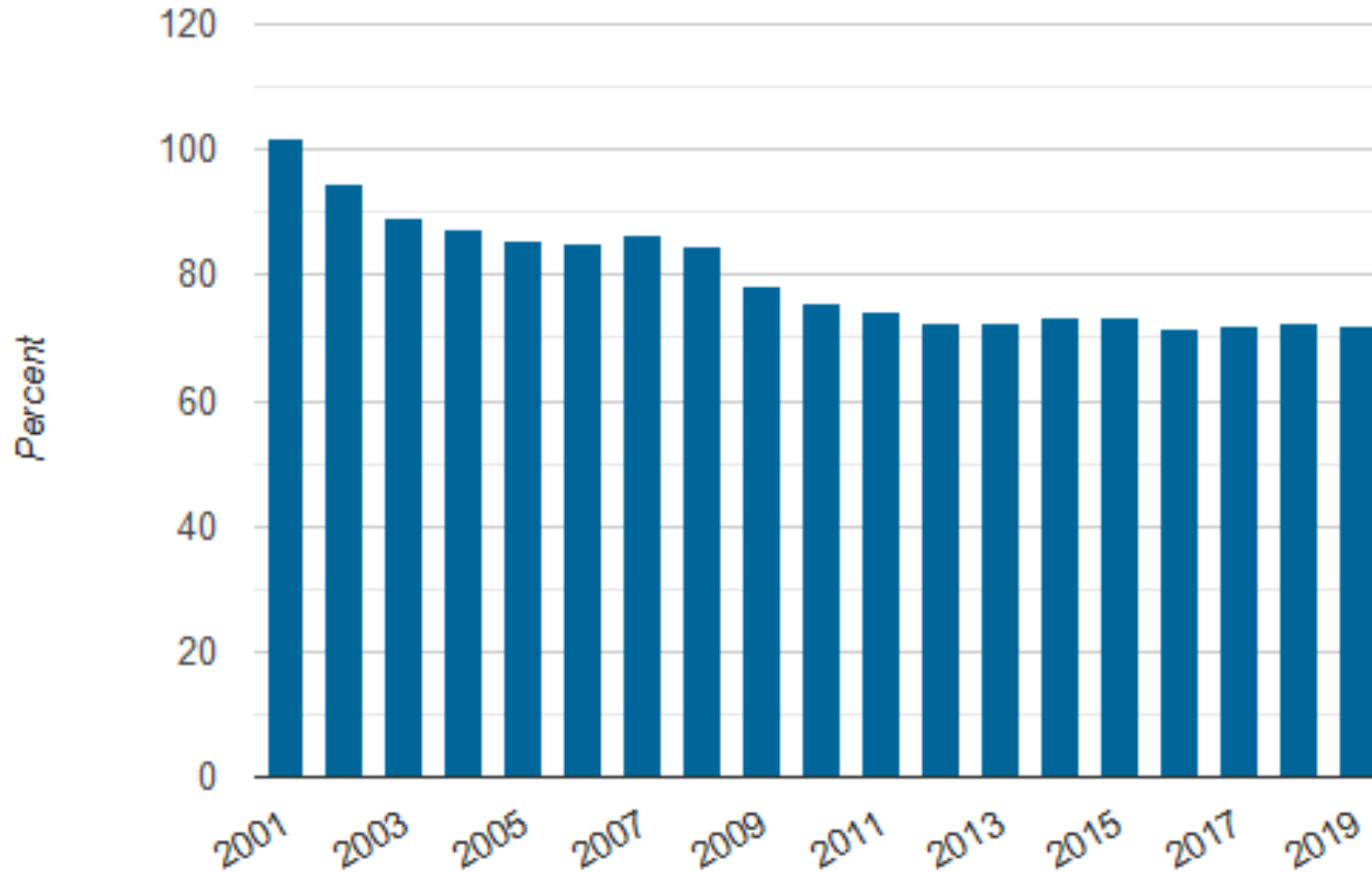


Actuarial Funded Ratio for State and Local Pensions, 2001-2019



Source: Public Plans Database Overview, Center for Retirement Research, <https://publicplansdata.org/quick-facts/national/>, Retrieved on July 22, 2020.

Actuarial Funded Ratio for State and Local Pensions, 2001-2019



2020  
???

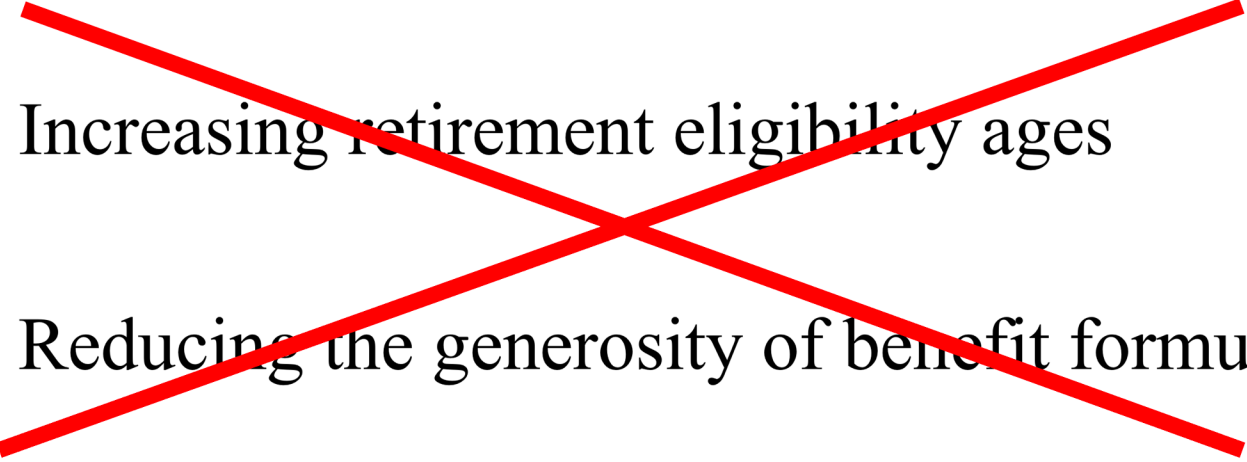
Source: Public Plans Database Overview, Center for Retirement Research, <https://publicplansdata.org/quick-facts/national/>, Retrieved on July 22, 2020.



# Ways to deal with the funding gap

- Increasing retirement eligibility ages
- Reducing the generosity of benefit formulas
- Changing cost-of-living adjustments

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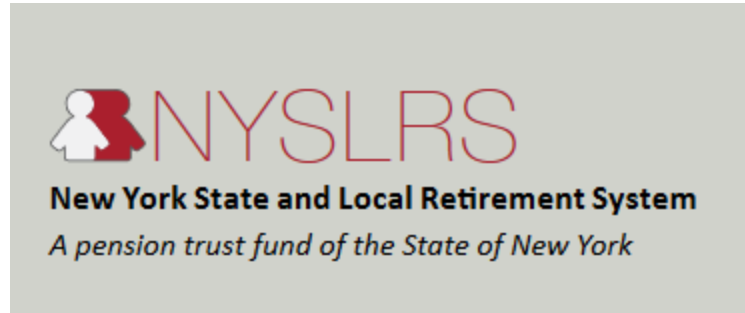
# What we do

- Build a database of COLA changes between 2005-2018
- Provide an overview of proportion of plans and state and local employees who experience COLA changes
- Estimate the potential impact of COLA changes on retirement behavior under various assumptions

# Data collection (so far!)

- Start with roster of plans from the State and Local Public Plans Database from Boston College's Center for Retirement Research (118 state and 82 local plans)
- Collect COLA rates from the following sources:
  - Legislative records of bills passed in state legislatures
  - Pension plan websites, Comprehensive Financial Reports and other plan documents, and by contacting plan administrators
  - Harmonized data when appropriate
- COLAs across 43 plans in 25 states between 2005 and 2018

# Data collection (examples)



## Post-Retirement Benefit Increases

A cost-of-living adjustment is provided annually to: (i) all retirees who have attained age 62 and have been retired for five years; (ii) all retirees who have attained age 55 and have been retired for ten years; (iii) all disability retirees, regardless of age, who have been retired for five years; (iv) ERS recipients of an accidental death benefit, regardless of age, who have been receiving such benefit for five years; and (v) the spouse of a deceased retiree receiving a lifetime benefit under an option elected by the retiree at retirement. An eligible spouse is entitled to one-half the cost-of-living adjustment amount that would have been paid to the retiree when the retiree would have met the eligibility criteria. This cost-of-living adjustment is a percentage of the annual retirement benefit of the eligible retiree as computed on a base benefit amount not to exceed \$18,000 of the annual retirement benefit. The cost-of-living percentage shall be 50 percent of the annual Consumer Price Index as published by the U.S. Bureau of Labor, but cannot be less than 1 percent or exceed 3 percent.

# Data collection (examples)

**State of Alaska**  
**Public Employees' Retirement System**  
**Defined Benefit Retirement Plan**  
**Summary of Plan Provisions and Changes in Plan Provisions**

## **15. Alaska Cost of Living Allowance**

Eligible benefit recipients who reside in Alaska receive an Alaska cost of living allowance (COLA) equal to 10% of their base benefits or \$50, whichever is more. The following benefit recipients are eligible:

- a. members who first entered PERS before July 1, 1986 (Tier 1) and their survivors;
- b. members who first entered PERS after June 30, 1986 (Tiers 2 & 3) and their survivors if they are at least age 65; and
- c. all disabled members.

# Population-level analysis

- Merge plan-level data with American Community Survey (ACS) for individuals aged 25-80 surveyed from 2005-2018 using sector of employment, location and occupation
- Match from most specific possibility (plan for certain occupation in a particular city) to most general (plan for state worker of any occupation)
  - Example: Chicago teachers pension plan → Illinois teachers → Illinois state employees



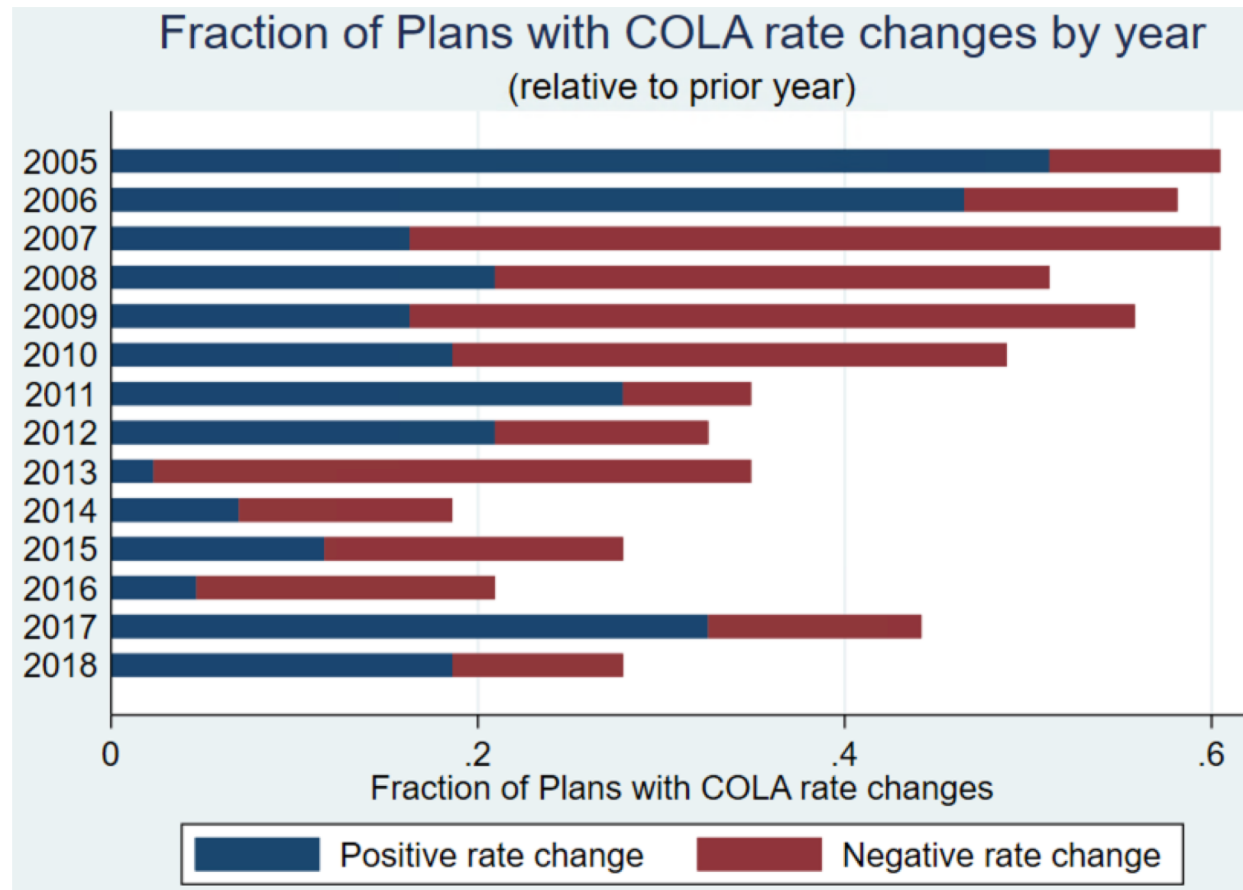
# Representativeness of sample

Table 1. Demographic Characteristics State and Local Public Sector  
Workers in the ACS and in the COLA Analysis Sample in 2018

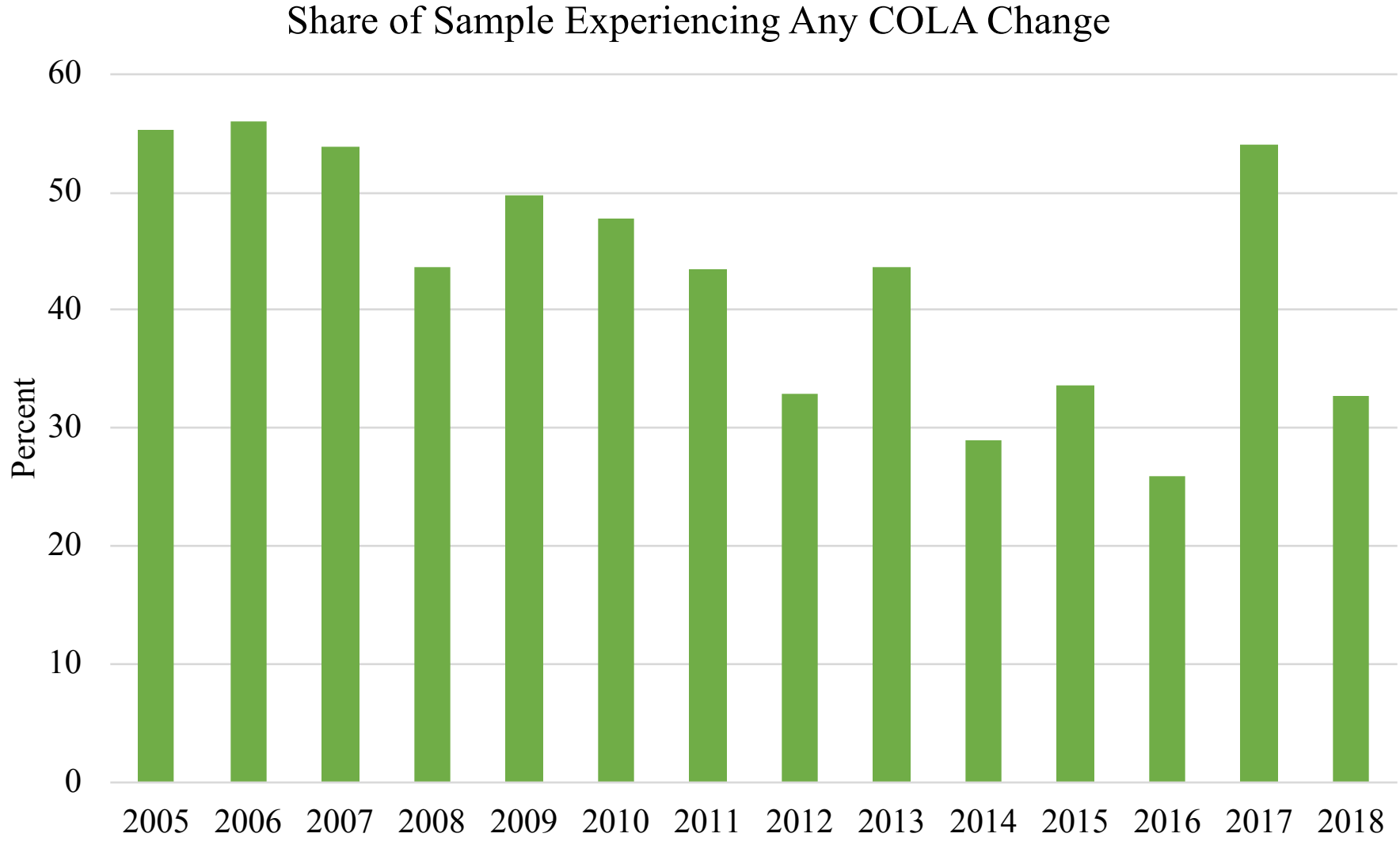
	ACS Public Employees	ACS Public Employees (final 25 states)	ACS Public Employees in (final 43 plans with COLA info)
Percent Black	14.1	14.7	11.7
Percent Hispanic	12.2	13.2	9.3
Percent White	66.5	63.8	72.3
Percent Female	59.5	59.2	59.8
Average Age	48.12	48.12	49.69
Average Income Wage	45,690	46,807	44,345
Percent in labor force	84.4	84.5	81.7
Number of People in the ACS	19,238,167	11,792,594	8,717,534

# Prevalence of COLA changes (plan level)

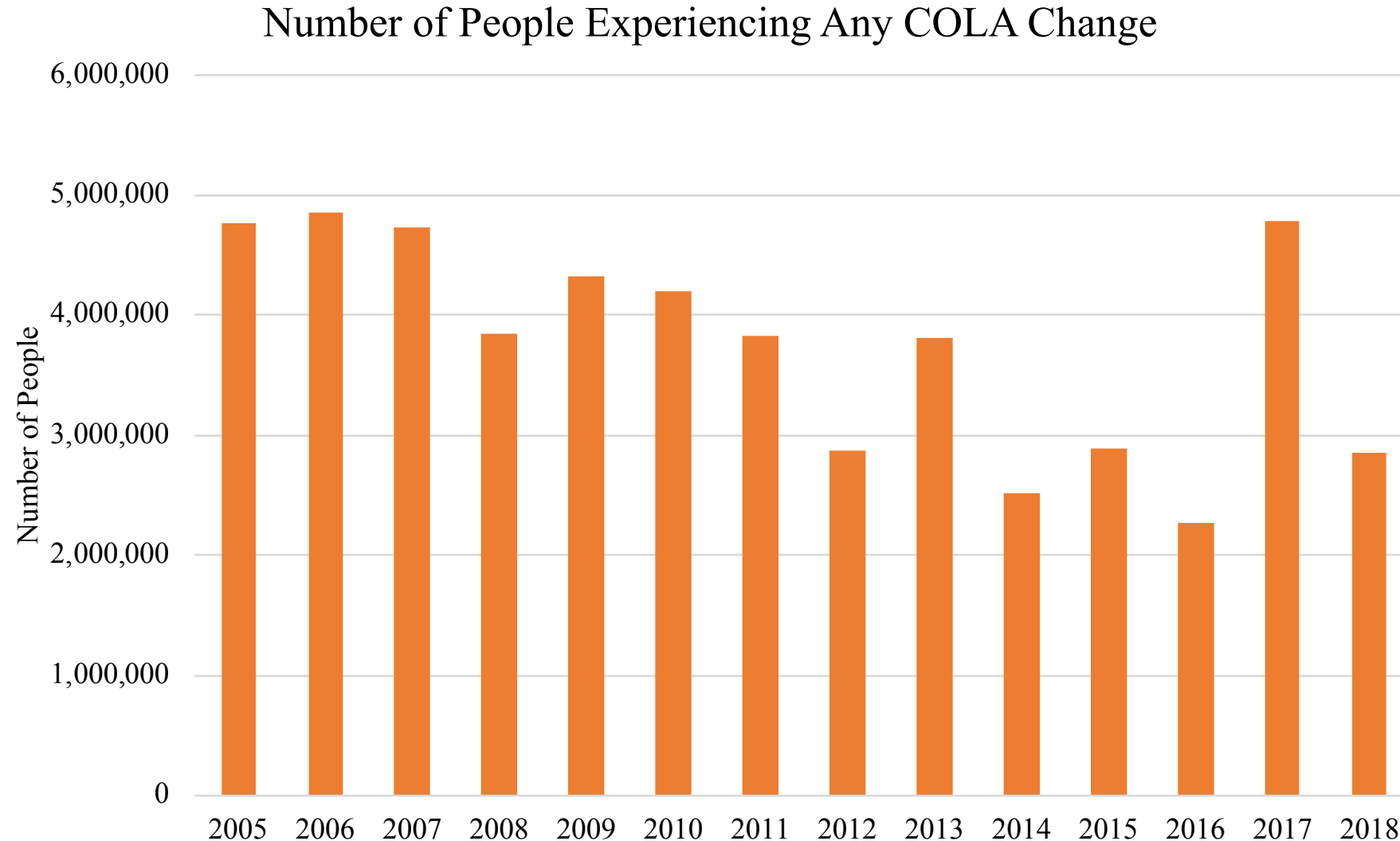
Figure 1. Fraction of Public Sector Pension Plans with COLA Rate Changes, 2005 to 2018



# Prevalence of COLA changes (population-level)

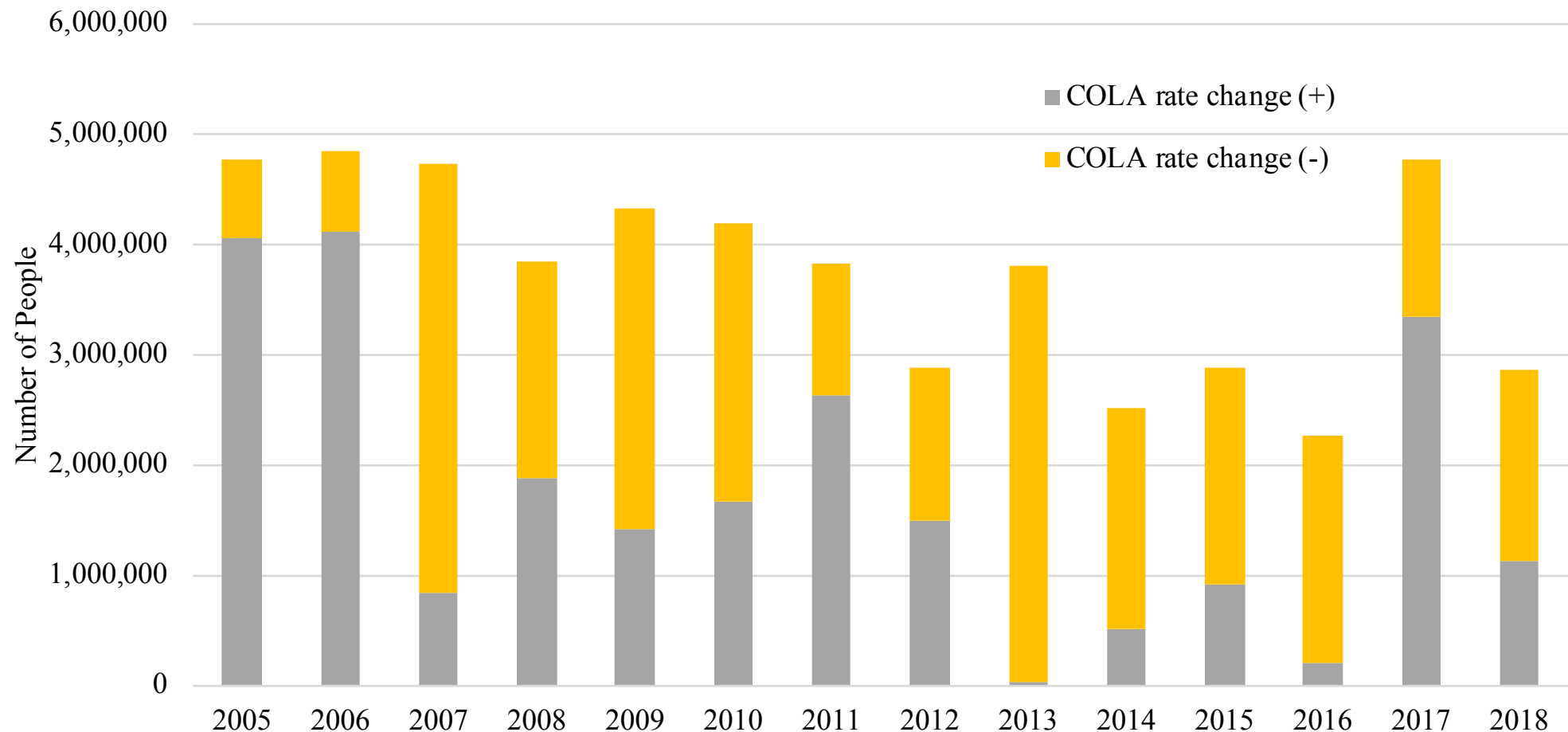


# Prevalence of COLA changes (population-level)



# Direction of COLA changes (population-level)

Number of People Experiencing Positive and Negative COLA Changes



# What may we expect?

- COLA changes affect the present value of retirement benefits
- This could impact:
  - Labor supply in the public and private sector
  - Social Security claiming (when applicable)

# Effects on retirement: stylized examples

- Determine baseline and counterfactual pension wealth for a public employee with 30 years of service who starts working at 22
  - Baseline COLA  $\rightarrow$  3%
  - Counterfactual COLA  $\rightarrow$  0%
- Other assumptions: Alternative II SSA Mortality for 1950 Cohort, 3% discount rate
- Use change in pension wealth and elasticity of retirement with respect to retirement wealth to estimate baseline and counterfactual retirement hazards and change in expected retirement age

# Effects on retirement: stylized examples

Table 4: Stylized examples of changes in the present value of retirement benefits and the retirement age from COLA changes

	$\Delta$ PV of Ret Benefits	$\Delta$ Ret Age (months)
Base Case	-35.7%	4.66



# Effects on retirement: stylized examples

Table 4: Stylized examples of changes in the present value of retirement benefits and the retirement age from COLA changes

		$\Delta$ PV of Ret Benefits	$\Delta$ Ret Age (months)
	Base Case	-35.7%	4.66
Mortality	Low Mortality	-40.0%	5.23
	High Mortality	-32.8%	4.26
Discount Rate	1.50%	-39.0%	5.10
	4.50%	-32.6%	4.24
Years of Service	25	-38.9%	5.09
	35	-32.3%	4.20
Elasticity	0.05	-35.7%	1.42
	0.25	-35.7%	7.41
COLA	5% --> 0%	-54.5%	7.23
	1.5% --> 0%	-18.9%	2.43

# Conclusions and future work

- COLA adjustments are prevalent in state and local retirement plans
- Direction of COLA changes lag market conditions
- Changes in COLAs could substantially affect retirement behavior
- Next steps
  - Continue data collection efforts
  - Investigate changes in labor supply using ACS under strong assumptions
  - Analyze changes in labor supply using administrative panel data