CENTER for RETIREMENT RESEARCH at BOSTON COLLEGE

STATE AND LOCAL PLANS NUMBER 71, AUGUST 2020

HOW DO DI BENEFITS FOR UNCOVERED PUBLIC WORKERS COMPARE TO SSDI?

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Introduction

Roughly one in four state and local government workers are not covered by Social Security and, unless they have a sufficient work history in the private sector, will rely solely on their employer for pensions and disability insurance. An important question is how these employer-provided benefits compare to the benefits that these workers might have received through Social Security. In other words, do workers who are outside of the Social Security system receive an adequate level of protection against old-age poverty and long-term disability?

While prior work has examined the adequacy of pension benefits for workers who are not covered by Social Security, little is known about the disability insurance (DI) that these workers receive.[1] This *brief* fills the gap by analyzing the rules governing DI benefits in 67 state and local programs (referred to as "Social Security-replacement" programs), which encompass around 70 percent of all uncovered public sector workers.

The discussion proceeds as follows. The first section provides background on Social Security disability insurance (SSDI) benefits and the types of state and local workers who are not covered by the program. The second section describes a new dataset of state and local DI programs for uncovered workers that was created for this study. The third section uses this dataset to compare eligibility requirements across state and local programs with those of SSDI, while the fourth section analyzes how benefit levels may differ for eligible workers. The last section concludes that state and local DI programs provide relatively

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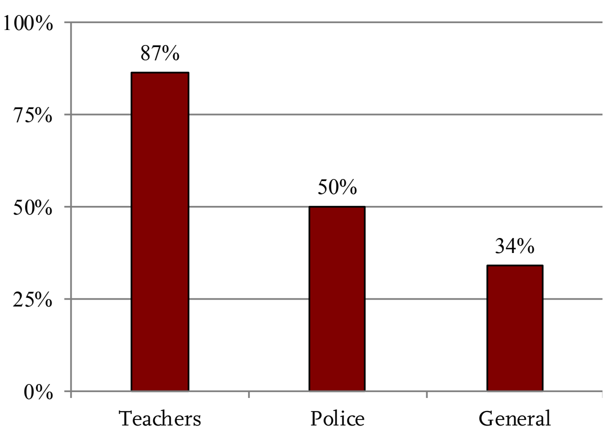
generous protection to older workers who are most at risk of experiencing a disability. Specifically, state and local eligibility requirements are less strict than SSDI, and most long-tenured employees earn higher replacement rates.

Background

Federal law allows certain state and local employees to be excluded from Social Security if they are covered by an employer pension of sufficient generosity.[2] Consequently, in 2018, roughly one-quarter of all state and local employees – about 6.5 million workers – were not covered by Social Security on their current job. These workers are concentrated along both geographic and occupational lines; 80 percent of them work in just 13 states.[3] In these states, 87 percent of teachers and 50 percent of police are exempt from Social Security, compared to only 34 percent of general public employees (e.g., lawyers, office clerks, and accountants) (see Figure 1).

Figure 1. Percentage of State and Local Employees Who Are Uncovered in 13 States, by Occupation, 2018



Note: The states included in this figure are listed in Endnote 3.
Source: Quinby, Aubry, and Munnell (2020 forthcoming).

Although standards set in the IRS Employment Tax Regulations for Social Security-replacement plans ensure that most uncovered workers will receive a pension that is at least as generous as Social Security old-age benefits, the regulations do not require employers to provide disability benefits equivalent to SSDI.[4] Most workers, especially those who are young or in white-collar occupations, might not be concerned about the risk of a disability that would prevent them from working. But the Social Security Administration estimates that one in four young workers today will develop a serious medical impairment before their mid-60s, with disability risk rising steeply as workers reach their 50s.[5]

For those with long-lasting disabilities that prevent them from holding a full-time job, SSDI can provide much needed financial support.[6] To be covered by SSDI, workers must first accumulate a minimum number of Social Security credits, which correspond to a minimum period of covered employment. For example, a worker who develops a disability at age 35 needs five years of covered employment to be eligible for SSDI, whereas a worker who experiences the same disability at age 55 needs eight years.[7] Hence, uncovered state and local workers with few previous years of covered employment are solely reliant on employer-provided DI benefits; uncovered workers with a longer history of Social Security coverage may be eligible for both SSDI benefits and their employer benefits.

SSDI benefits are determined by multiplying a worker's Average Indexed Monthly Earnings by a progressive replacement rate formula.[8] Benefits are further adjusted for state and local workers such that SSDI from covered employment and the worker's state or local DI benefit from uncovered employment, combined, cannot exceed 80 percent of pre-disability earnings.[9]

The question is, how do the DI benefits for uncovered workers compare to the SSDI benefits that these workers would have received had they always been covered by Social Security?

Data

To assess the adequacy of DI benefits for uncovered state and local workers, it is necessary to know: 1) whether they are vested in their employer's DI program; 2) what disabling conditions are covered; and 3) the level of benefits that eligible workers can receive.

Because comprehensive information on state and local DI programs is not readily available, the first goal of this study was to create a new database of benefit provisions. Most state and local DI programs are administered by retirement systems that also provide pension benefits. Consequently, the new database of DI programs created for this study was developed by choosing the 100 largest retirement systems from an existing dataset, the *Public Plans Database* (PPD), and adding a few smaller systems to ensure that all of the main public sector occupations are represented in each state.[10]

Detailed information on DI program design was gathered from the benefit handbooks and actuarial valuations published by the public sector retirement systems; Table 1 lays out the key variables collected. Like public pensions, state and local DI programs sometimes provide different levels of benefits depending on a worker's occupation and hire date. Our new database of DI programs reflects the variation in benefits across occupations for workers hired in 2020.

Table 1. Key Variables Collected for State and Local DI Programs, by Type

Who is covered	Type of disabilities covered	Level of benefits
• Eligibility requirements • Vesting requirements	• Degree of disability • Duration of disability	• Benefit formula • Definition of final average salary & service

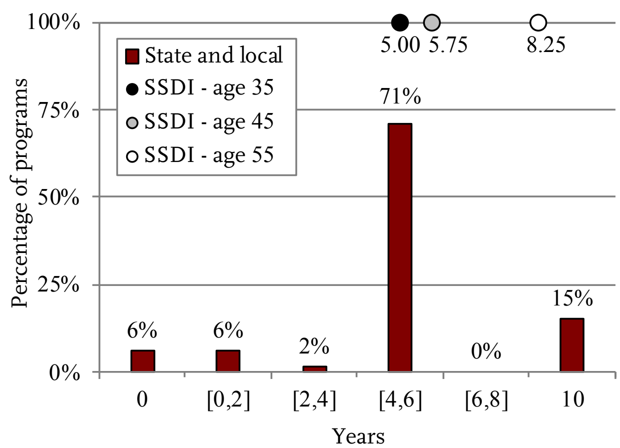
Source: Authors' illustration.

Since this *brief* addresses DI benefits for public workers not currently covered by Social Security, the analysis focuses on 67 state and local benefit programs that are intended to replace Social Security (involving 27 retirement systems).[11] Information on eligibility criteria was available for all of these programs; detailed formulas for calculating benefit levels could be obtained for 48 programs (in 25 retirement systems).[12] Overall, the sample of DI programs represents around 70 percent of uncovered public sector workers.

Comparing Eligibility Criteria

Adequate protection for a disability starts with being eligible for insurance. While all of the retirement systems in the sample offer long-term disability insurance, the years of service required to be eligible vary considerably – from no requirement to 10 years – and, unlike SSDI, none of the vesting requirements depend on age. Roughly 70 percent of the Social Security-replacement DI programs require between four and six years to vest, which is comparable to the years of employment required to be covered by SSDI for a 35-year old worker. Nevertheless, a significant minority of the programs – 15 percent – require 10 years of service (see Figure 2).

Figure 2. Vesting Requirements for State and Local DI Programs for Uncovered Workers



Source: Authors' calculations using the *Public Disability Insurance Programs Dataset* (2020 forthcoming), which draws from actuarial valuation reports and benefit guides (2020).

For vested workers, a key question is what types of disabling conditions are covered by the insurance. While SSDI covers long-term disabilities only if they prevent someone from holding a full-time job in *any* occupation, most public employees face a less strict standard in their DI programs. Specifically, 85 percent of the Social Security-replacement programs in the sample cover disabilities that prevent workers from performing their *current* job, even if the worker might be able to hold a job in a different occupation. The remaining 15 percent of programs only provide insurance in situations similar to SSDI.

Comparing Benefit Levels

The final step in assessing DI adequacy is evaluating the level of benefits that workers will receive. In other words, how much of their pre-disability wages will workers get if they can no longer work?

To answer this question, it helps to first understand important differences in how public programs and SSDI calculate disability benefit levels (see Table 2). As noted above, SSDI benefits are determined by multiplying a worker's lifetime Average Indexed Monthly Earnings (AIME) by a progressive replacement rate formula. In 2020, the formula replaces 90 percent of the first $960 in AIME, 32 percent of the next $4,825 of AIME, and 15 percent of the remaining AIME, up to the maximum taxable wage base of $9,875. In contrast, state and local DI programs typically multiply a worker's final earnings (from the last few years of employment) by a constant multiplier (e.g. 1.5 percent), and then multiply the total by the worker's years of service with the non-Social Security employer.

Table 2. Benefit Formula for SSDI Compared to Most State and Local DI Programs in 2020

SSDI	State and local DI programs
90 percent of the first $960 of AIME + 32 percent of AIME between $960 and $5,785 + 15 percent of AIME between $5,785 and $9,875	Benefit multiplier (e.g. 1.5%) * Final average salary * Years of service

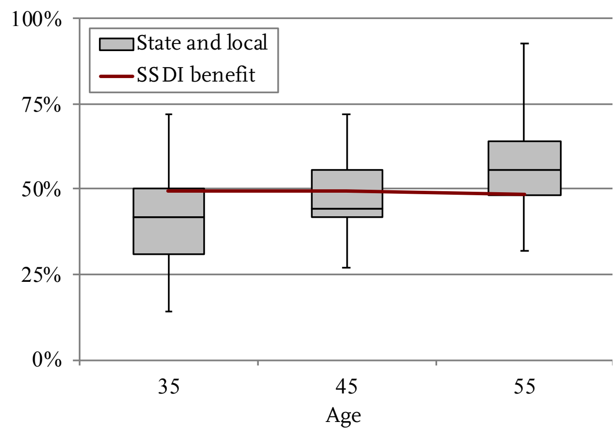
Sources: U.S. Social Security Administration (2020c); and authors' analysis of public plans.

As a result, the amount of pre-disability income replaced by SSDI depends on a worker's earnings level, with low-wage workers receiving a significantly higher portion of their pre-disability wages than high-wage workers. In contrast, replacement rates in most state and local programs depend on tenure, with high-tenure workers receiving higher replacement rates than low-tenure workers.

To explore how the two programs compare in practice, we calculate benefit levels for three hypothetical workers who vary in terms of their length of government tenure. The exercise assumes that all workers start their uncovered state or local job in 2020 at the age of 25, and remain in that job until developing a work-limiting disability. For the purpose of illustration, the hypothetical workers are assumed to have a starting salary of $36,000, which is consistent with a prior analysis of retirement benefit adequacy.[13] Benefit levels are reported as a percentage of pre-disability earnings so that the results can be easily compared across workers with different length of tenure.[14]

Figure 3 presents the results of this exercise as a "box-and-whisker" plot. The gray boxes indicate the 25th, 50th (median), and 75th percentiles of the replacement-rate distribution for workers who experience a disability at age 35 (10 years of government tenure), age 45 (20 years of tenure), and age 55 (30 years of tenure). The whiskers, or lines above and below each box, show the highest and lowest replacement rates.

Figure 3. Hypothetical Replacement Rates in State and Local DI Programs for Uncovered Medium Earners Compared to SSDI, by Age, 2020



Sources: Authors' estimates from the *Public Disability Insurance Programs Dataset* (2020 forthcoming); and U.S. Social Security Administration (2020c).

Two patterns stand out. First, the bulk of state and local DI programs for uncovered workers provide benefits within 20 percentage points of each other for a given worker, across different tenure ranges. Second, due to the way that benefits are calculated, most long-tenured workers fare better under the public-sector DI programs than under SSDI, while most short-tenured workers fare better under SSDI.[15] However, since the risk of a work-limiting disability rises with age, many short-tenure workers who end up relying on state or local DI will have spent time in Social Security-covered employment prior to working for a state or local government. Consequently, the short-tenure workers most at risk of needing DI are also likely to be eligible for a partial SSDI benefit in addition to their employer benefit.

Conclusion

Roughly one-quarter of state and local employees are not covered by Social Security on their current job and rely on their employer for pension and DI benefits. Since prior studies of old-age benefits for uncovered workers found some plans falling short, this *brief* takes the next step and compares DI benefits for uncovered workers to what workers would have earned from SSDI. The analysis involved creating a comprehensive new database of benefit provisions in state and local DI programs, which will be publicly available on the Center's website in the fall of 2020.

The data show that most state and local programs for uncovered workers provide adequate protection along two important dimensions: DI eligibility and benefit levels for eligible workers. On the eligibility front, state and local DI programs are less strict than SSDI, requiring only that the worker be unable to perform their previous job, rather than any job in the national economy. And replacement rates for older workers, who are most likely to experience a disability, are often comparable to those generated by SSDI. In particular, older workers who spend their full careers in government earn benefits that are more generous than SSDI. Their short-tenured colleagues fare better under SSDI, but older short-tenured workers who are most at risk of needing DI are also likely to be eligible for a partial SSDI benefit earned through previous covered employment.

Endnotes

1 Quinby, Aubry, and Munnell (2020 forthcoming).

2 The legal requirements for benefit generosity are specified in regulations issued pursuant to Internal Revenue Code Section 3121.

3 These states are California, Colorado, Connecticut, Georgia, Illinois, Kentucky, Louisiana, Massachusetts, Missouri, Nevada, New Jersey, Ohio, and Texas.

4 Although state and local plans adhere to the requirements for pension benefits, these requirements ignore key plan design parameters that often differ between public pensions and Social Security. Due to these omissions, Quinby, Aubry, and Munnell (2020 forthcoming) suggest that a significant minority of uncovered new hires may not receive Social Security-equivalent benefits. With respect to DI programs, while the IRS regulations do not apply, we use the term “Social Security-replacement programs” as shorthand given that the DI programs are sponsored and administered by the same entities that run the pension programs.

5 U.S. Social Security Administration (2020a).

6 In 2018, 10 million Americans (or roughly half of the workers with disabilities) were receiving SSDI payments. The average monthly benefit for male workers with disabilities was $1,360. See U.S. Social Security Administration (2019a) for details.

7 For more information on Social Security credits, see U.S. Social Security Administration (2020b).

8 The U.S. Social Security Administration calculates the Average Indexed Monthly Earnings (AIME) for SSDI benefits using a worker’s pre-disability wages. Like the AIME used in retirement benefit calculations, past earnings are indexed to adjust for wage inflation, and earnings from an uncovered state or local job appear as zeros in the worker’s Social Security earnings record. Unlike retirement benefit calculations, SSDI calculations do not use the average of the highest 35 years of a worker’s earnings; instead, they take the average of a subset of years between age 22 and the age at which the disability occurred.

9 U.S. Social Security Administration (2017).

10 The *Public Plans Database* is maintained by the Center for Retirement Research at Boston College.

11 Coverage status is determined by retirement system and occupation based on information in the *Public Plans Database* and Quinby, Aubry, and Munnell (2020 forthcoming).

12 Small locally administered programs are more likely to be missing data on detailed benefit formulas.

13 Quinby, Aubry, and Munnell (2020 forthcoming) examine membership data published in the actuarial valuation reports of Social Security-replacement state and local retirement systems to determine the average starting salary of a worker joining the uncovered public sector in 2028 at age 35. This study adjusts the starting salary using assumptions about inflation and real wage growth to reflect a 25-year-old entering the uncovered public sector in 2020. The calculation assumes 2.6 percent inflation and 1.2 percent real wage growth based on the intermediate assumptions of U.S. Social Security Administration (2019b).

14 Economic assumptions needed to project key parameters in SSDI are drawn from U.S. Social Security Administration (2019b).

15 The advantage of SSDI for short-tenured workers is compounded when cost-of-living adjustments (COLAs) are taken into account. Similar to the Social Security program, most state and local retirement systems grant DI benefits the same annual COLAs that they provide for pension benefits. Yet, whereas the Social Security program ensures that benefits keep pace with inflation each year, many Social Security-replacement retirement systems do not grant full COLAs. For example, around 20 percent of systems provide COLAs that are non-compounding, and 15 percent only award COLAs on an ad-hoc basis depending on the investment performance of the system’s trust fund. See Quinby, Aubry, and Munnell (2020 forthcoming) for a detailed examination of COLA provisions in Social Security-replacement plans.

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The research reported herein was derived in whole or in part from research activities performed pursuant to a grant from the U.S. Social Security Administration (SSA) funded as part of the Retirement and Disability Research Consortium. The opinions and conclusions expressed are solely those of the authors and do not represent the opinions or policy of SSA, any agency of the federal government, or Boston College. Neither the United States Government nor any agency thereof, nor any of their employees, make any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of the contents of this report. Reference herein to any specific commercial product, process or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply endorsement, recommendation or favoring by the United States Government or any agency thereof.