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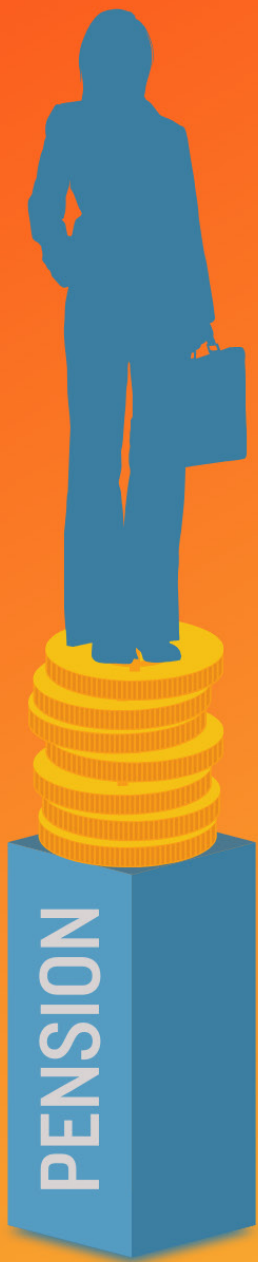
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Public Pensions Support Race, Class, and Gender Equity in California

By Nari Rhee, Ph.D.



Highlights

This report analyzes the impact of public sector employment and defined-benefit pensions—which provide secure monthly retirement income based on salary and years of service—on poverty and wealth outcomes by race, gender, and educational attainment in California. Based on data from the U.S. Census Bureau, this report complements the author’s national-level study, *Closing the Gap: The Role of Public Pensions in Reducing Retirement Inequality*, available at <https://www.nirsonline.org/reports/closingthegap/>.¹ We find that public pensions play an outsized role in the retirement security of every major demographic group in California, with the strongest impact on women and people of color. It is also a powerful tool for reducing wealth inequality. As private pension coverage declines, public pensions remain a critical bulwark of middle-class retirement security alongside Social Security, particularly for marginalized communities who have been historically shut out of other wealth-building opportunities.

Detailed findings are as follows:

1. Public sector employment plays a critical role in the retirement security of all racial groups in California, with particularly large effects on Black and Latino workers.

- Rates of public sector employment were highest for Black women (24%), white women (22%), Black men (20%), and Latina women (18%) in 2018-2021, compared to the overall rate of 15% among California wage and salary employees age 21-64.
- Public sector jobs in California provide a significantly higher rate of retirement benefit coverage than private sector jobs (74% vs. 44%), and 70% of public employees in the state are covered by a traditional defined-benefit pension.
- Latino workers in the public sector were 117% more likely to be included in a workplace retirement plan than those employed in the private sector (68% vs. 31%).
- Black public employees were 76% more likely to participate in a workplace retirement plan than Black private sector employees (72% vs. 41%). Public sector employment is a critical source of wealth-building opportunities for the Black community, accounting for 22% of Black employment and 33% of Black retirement plan participants in 2018-2021.

2. Pensions continue to be a critical source of retirement income for many California seniors, reducing retiree poverty and near-poverty across race, gender, and educational attainment. Pensions’ anti-poverty effect is the largest for Black retirees, Latino retirees, and retirees without a four-year college degree.

- Pensions are the second most important source of income for California seniors, after Social Security. In 2018-2021, 28% of individuals age 65 and older received pension income from a union, private employer, or government plan. Black seniors were most likely to have pension income (40%), followed by white seniors (33%).
- Pensions reduce economic hardship among retirees, defined for this analysis as persons age 65 and older who have at least \$5,000 in Social Security income or pension income

and less than \$5,000 in earnings annually. In 2016-2021, 91% of retirees in households with pension income lived above 200% of the Federal Poverty Level (FPL), compared to 57% of those without pension income. (A commonly-used threshold for meeting basic needs, 200% FPL in 2021 was \$25,992 for older singles and \$32,758 for older couples.)

- Black retirees with household pension income were 108% more likely to be above 200% FPL than those without pension income (85% vs. 41%). Latino retirees were 62% more likely to be above this basic income threshold if they had pension income (82% vs. 51%).
- Retired men and women were respectively 55% and 60% more likely to be above 200% FPL if they had household pension income.
- Retirees with some college education or an associate degree (but not a bachelor's degree) were 53% more likely to be above 200% FPL if they had household pension income. Those with no college education were 70% more likely to be above 200% FPL if they had pension income compared to those without.

3. Pension payments to adults age 55 and older in California represent \$569 billion in household wealth, boosting middle-class family net worth and narrowing race-, gender-, and class-based wealth gaps.

- In 2018-2021, 2.1 million Californians age 55 and older received pension income totaling \$47.2 billion annually. Nearly 1.1 million received income from public pensions, which provided \$28.4 billion, or 60% of total pension income. More than 1 million received private pension income.
- The value of this income stream over the remainder of recipients' lives is equivalent to \$568.9 billion in household wealth from pensions, including \$361.3 billion from public pensions.
- Pension wealth boosted the typical (median) net worth of older California families by 21%, with the largest impact on Black families and families headed by women and older adults without a bachelor's degree.
 - Older Black family median net worth increased 56% from pensions, with public pensions contributing more than half of this impact.
 - Pensions increased older Latino family median wealth by 18%—a significant amount, though less than the average for all older families. However, older Latino families' collective net worth increased by 10%, compared to 7% for all older families.
 - Median net worth increased 23% among female-headed families—with public pensions contributing almost two-thirds of the difference—compared to 18% among male-headed families.
 - Pensions increased the median net worth of families headed by people without a four-year college degree by more than 35%, and a majority of this growth came from public pensions.

Introduction

Public sector defined-benefit (DB) pensions—which provide secure monthly retirement income that teachers, librarians, first responders, and other essential public service workers can count on at the end of their working lives—form one of the last remaining bulwarks of middle-class retirement security. Based on an analysis of the U.S. Census Bureau’s Survey on Income and Program Participation (SIPP), 2.1 million Californians age 55 and older received pension income totaling \$47.2 billion annually in 2018-2021. Nearly 1.1 million received income from public pensions, which provided \$28.4 billion, or 60% of total pension income. More than 1 million received private pension income. In addition, 775,000 older adults benefited from pension income received by a spouse or other family member in their household.²

Public pensions not only provide critical retirement income, they also comprise a significant share of middle-class household wealth. This is because the guaranteed lifetime income stream provided by pensions is a form of savings, or wealth, for pension participants and their families. Indeed, retirement wealth makes up the largest financial asset for U.S. households, and pensions account for nearly half of the non-Social Security share of retirement wealth.³ While current debates about public pensions focus narrowly on pension benefits as financial liabilities to state and local governments, public pensions are important middle-class household assets.

Several recent studies by Federal Reserve economists have found that pensions—along with Social Security—reduce racial gaps in household wealth, and that the abandonment of pensions in favor of 401(k)s in the private sector has exacerbated wealth inequality.⁴ This is because wealth held in retirement accounts such as 401(k)s and individual retirement accounts (IRAs) (which are primarily used to roll over 401(k) balances) is significantly more concentrated by race and income than traditional pension benefits. In addition, pensions keep seniors out of economic hardship, with the largest impact on Black and Latino retirees.⁵

This report explores the race, gender, and class equity impacts of public sector pensions in California, based on analyses of data from the U.S. Census Bureau and the U.S. Bureau of Labor Statistics.⁶ We present three key findings. First, public pensions play an outsized role in overall retirement plan coverage, with the largest relative impact on Black and Latino workers and workers without a four-year college degree. This is important because workplace retirement plan participation is a critical factor in retirement wealth building. Second, pensions ensure that retirees are able to meet basic expenses and avoid falling into economic hardship. This benefit cuts across race, gender, and educational divides, with a larger relative boost for communities of color that lack access to generational wealth, older women, and retirees without four-year college degrees. Finally, pensions—especially public pensions—reduce wealth inequality among older families in California. Black families, female-headed families, and families headed by older adults without a four-year college degree see the largest relative increase in net worth when the wealth value of pension income is included. Thus, public pensions are an important tool in the fight to reduce race and gender inequality in income and wealth.

The remainder of this report is organized as follows. **Section I** examines the demographics of public sector employment in California and compares private sector versus public sector retirement benefit coverage rates by race and education. **Section II** analyzes rates of economic hardship among California retirees by pension income receipt and by race, gender, and educational attainment. **Section III** examines the distribution of pension income and estimates the impact of pension wealth on overall wealth distribution among older families in California.

Unless otherwise stated, all dollar values in this report and underlying data analyses were inflation-adjusted to 2021 values.

DB and DC Retirement Plans

Defined-benefit (DB) pensions provide guaranteed lifetime retirement income, usually based on the employee's final average salary and years of service. They also include disability pensions for workers who become disabled at work, and survivor pensions for the spouses of deceased retirees. Private pensions are funded by employers, while most public pensions are jointly funded by employers and employees. In either case, the employer

is responsible for promised benefits. Pension assets are pooled in a trust and invested by professionals, with oversight by a board of trustees.

Defined-contribution (DC) plans, such as 401(k)s, consist of individual investment accounts. The employer and/or employee contribute, depending on the plan. While the employer is responsible for providing low-cost investment options, the employee assumes all investment risk. Benefits take the form of a lump-sum account balance.

Relationship Between Pension Income and Pension Wealth

The monthly income provided by a pension is guaranteed to continue for as long as the recipient lives. This guaranteed income stream can be translated into a lump-sum wealth value, or net present value, based on the recipient's remaining life expectancy and a given interest rate. (The same principle is in action when

someone purchases an annuity from an insurance company, paying a large sum up-front in exchange for lifelong monthly income.) In other words, pension wealth is the total value of someone's future pension payments, expressed in today's dollars.

A detailed explanation of how pension wealth was estimated for this study can be found in the Appendix.

I. Public Sector Retirement Benefits Play an Outsized Role in the Retirement Security of California Workers

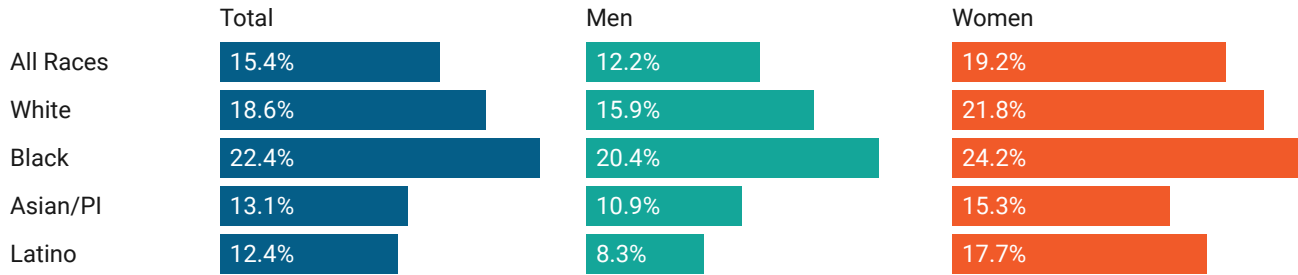
Public sector jobs provide middle-class economic opportunity—including robust retirement benefits—to the diverse California workforce, with particularly large impacts on women and Black and Latino workers. This is due to the demographics of public sector employment, as well as the fact that public employers provide more robust and more racially equitable retirement benefit coverage than private sector employers.

Women make up 57% of public employees in California, according to 2018-2021 data from the Current Population Survey/Annual Social and Economic Survey (CPS ASEC), a joint survey of the U.S. Census Bureau and the U.S. Bureau of Labor Statistics. While workers of color are a smaller percentage of public sector employees than private sector employees, they still make up 56% of the public sector workforce in the state.⁷

Figure 1 shows the percentage of workers employed in public sector jobs, by race as well as by race-gender.⁸ In 2018-2021, 15.4% of wage and salary employees worked in federal, state, and local government jobs in California. Black workers were the most likely to work in the public sector (22.4%), followed by white workers (18.6%). Both Asian/Pacific Islander (Asian/PI) workers and Latino workers were less likely to be employed in the public sector (13.1% and 12.4%, respectively).

However, when employment patterns are further disaggregated by gender, it turns out that women of all races are well-represented in the public sector, while Asian and Latino men are significantly underrepresented. Black women (24.2%), white women (21.8%), and Black men (20.4%) had the highest public sector employment rates in 2018-2021, followed by Latina women (17.7%). Meanwhile, public sector employment rates among white men and Asian women (15.9% and 15.3%, respectively) were on par with the workforce average. In contrast, Asian and Latino men were significantly less likely to work in public sector jobs (10.9% and 8.3%, respectively). (See Figure 1.)

Figure 1. Public Sector Employment Rate by Race and Gender, California, 2018-2021



Note: Author’s analysis of CPS ASEC. Universe is California wage and salary employees age 21-64.

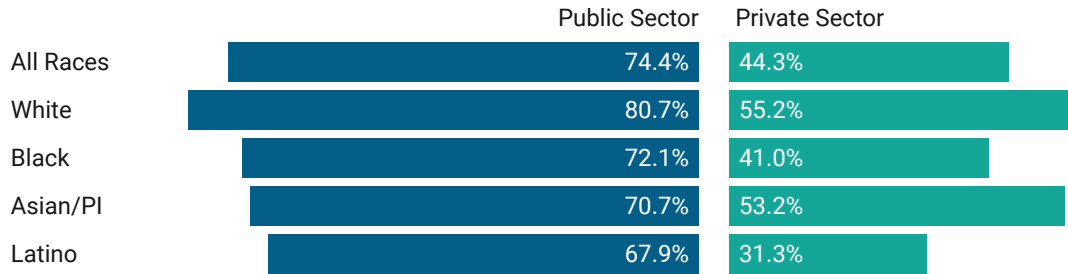
Administrative data indicate that roughly 70% of all state and local government employees in California are covered by a defined-benefit pension. Out of a total of 2.5 million state and local government employees in California in 2021, the California State Teacher’s Retirement System (CalSTRS) and California Public Employees’ Retirement System (CalPERS) pension plans covered 1.4 million workers.⁹ In addition, 22 independent retirement systems provide pensions to another 300,000 local government employees.¹⁰ Federal employees, who make up less than 3% of public employees in the state, are generally covered by the Federal Employee Retirement System pension. Most state and local government employees in California are also offered 401(k)-type plans, generally as a supplemental benefit rather than in lieu of pensions.¹¹

In contrast, many private employers do not offer a plan, and among those that do, most offer defined-contribution (DC), 401(k)-style retirement accounts that typically require employees to actively opt into participation. 401(k)s provide large up-front tax benefits for contributions from high-income workers, and only incidental tax benefits for low-income workers.¹² Thus, take-up rates are low among low-wage workers in DC plans.¹³ Furthermore, 401(k) balances tend to fall far short of what workers need to sustain meaningful retirement income throughout retirement. Nationally, the median retirement savings balance—including DC plans and IRAs—was just \$30,000 among private sector employees age 55-64 in 2021.¹⁴

These differences result in broader, more robust, and more racially equitable retirement plan coverage in the public sector than in the private sector, as **Figure 2** shows. In 2018-2021, public sector workers were 68% more likely than private sector workers to participate in a retirement plan of any kind (74.4% vs. 44.3%). While white workers enjoyed the highest coverage rate in the public sector (80.7%) during this period, workers of color were not as far behind in the public sector as in the private sector. Indeed, Black public employees were 76% more likely to be covered by a workplace retirement plan than Black private sector employees (72.1% vs. 41.0%). The difference was even larger for Latino employees: those working in the public sector were 117% more likely to participate in a retirement plan as those working in the private sector (67.9% vs. 31.3%).

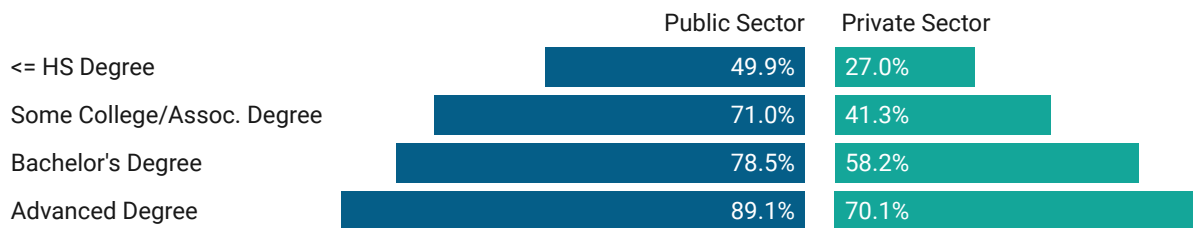
Most public employees in California have at least a bachelor’s degree.¹⁵ Nonetheless, public sector retirement benefits offer a leg up for California workers without four-year college degrees (**Figure 3**). In 2018-2021, public employees whose highest level of education was a bachelor’s degree were 35% more likely than their private sector counterparts to participate in a workplace retirement plan (78.5% vs. 58.2%). The public sector advantage was much larger for workers with less education: 72% for those with some college or an associate degree (71.0% vs. 41.3%) and 85% for those with a high school degree or less (49.9% vs. 27.0%).

Figure 2. Public vs. Private Sector Retirement Plan Participation Rates, by Race, California, 2018-2021



Note: Author's analysis of CPS ASEC. Universe is California wage and salary employees age 21-64.

Figure 3. Public vs. Private Sector Retirement Plan Participation Rates by Educational Attainment, California, 2018-2021



Note: Author's analysis of CPS ASEC. Universe is California wage and salary employees age 21-64.

II. Pensions Reduce Retiree Poverty Across Race, Gender, and Educational Divides

This section examines the impact of pension income—defined in this report as retirement, disability, and survivor benefits from a union, private employer, or government pension fund—on retiree poverty by race, gender, and educational attainment. Given the importance of Social Security income, this analysis focuses on adults who are at least age 65, the median claiming age for Social Security benefits.¹⁶

To provide context for the poverty analysis, **Figure 4** shows the percentage of adults age 65 and older in 2018-2021 who were direct recipients of key sources of personal income—Social Security, pensions, earnings, 401(k)/IRA income, and property income (interest, dividends, and rent) above \$1,000 a year—by race, gender, and educational attainment. (The \$1,000 threshold was applied to property income because most recipients only receive nominal interest income.) This analysis used data from the U.S. Census Bureau’s Survey of Income and Program Participation (SIPP).

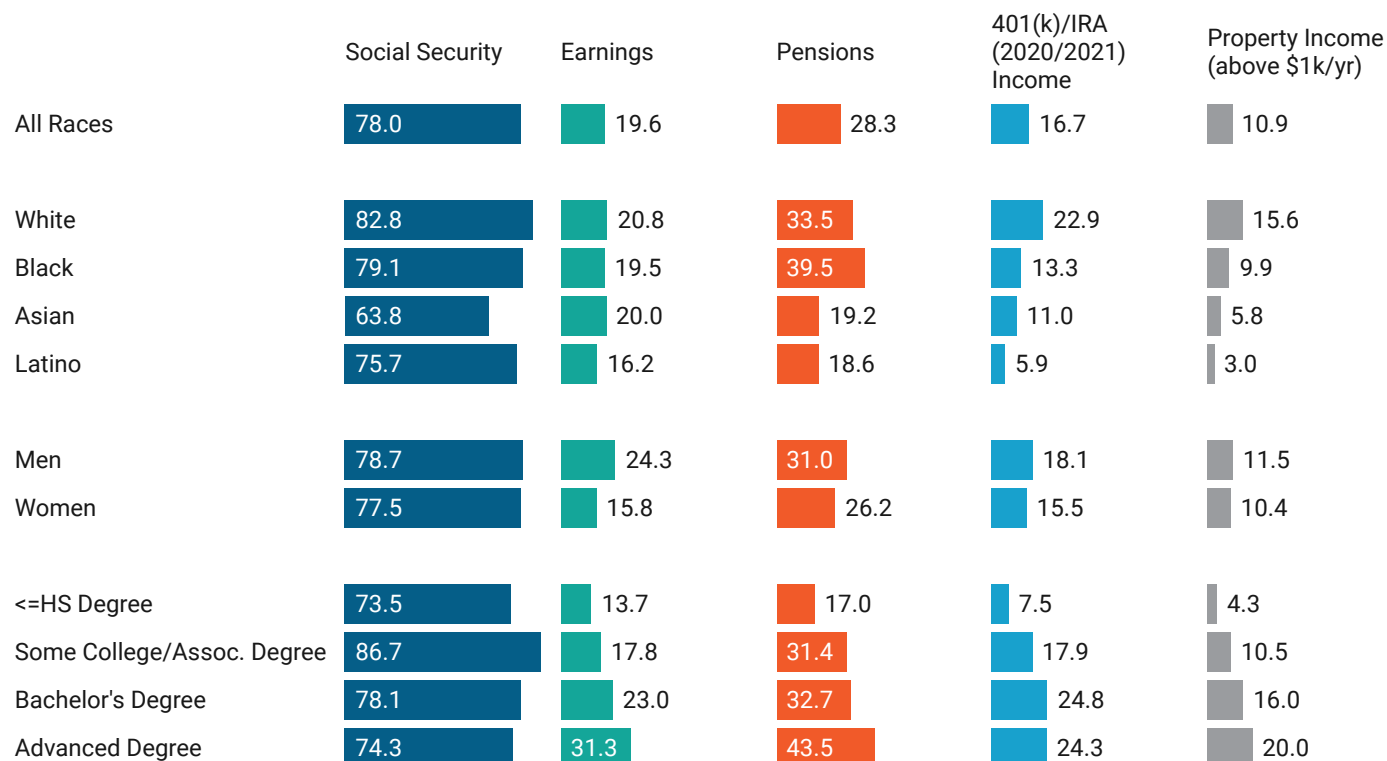
Social Security is the primary pillar of retirement income: 78% of California seniors received Social Security as part of their personal income in 2018-2021. Pension income was the second most important source of income, with 28.3% receiving retirement, disability, or survivor pensions from a private or public pension plan. One out of five seniors (19.6%) had positive earned income from a job or business. Only 16.7% of California seniors had income from 401(k) or individual retirement account (IRA) withdrawals, and 10.9% had property income above \$1,000/year. (See Figure 4.)

Black seniors were most likely to have pension income (39.5%), followed by white seniors (33.5%). Asian and Latino seniors were significantly less likely to have pension income (19.2% and 18.6%, respectively), likely due to their historical underrepresentation in public sector employment. While the rate of pension income receipt varied across demographic groups, this income source was the second most important after Social Security for all races (except Asians), both men and women, and all educational attainment groups. (SIPP does not include Pacific Islanders as a race category; thus, findings based on this data source identify Asians only rather than Asian/Pacific Islanders.)

Poverty Analysis Methodology

We examined the impact of pensions on retiree economic security by comparing the poverty status of individuals age 65 and older who had household pension income—either in their own name or via their spouse—to the poverty status of seniors who did not. In order to focus on retirees, we limited this analysis to seniors age 65 and older with less than \$5,000 in annual earnings and at least \$5,000 in annual Social Security benefits or individual pension income in 2016-2021. (In California, teachers and some other public employees are not covered by Social Security.) Due to sample size limitations in SIPP, we used CPS ASEC data for this analysis.¹⁷

Figure 4. Share of Adults Age 65+ with Personal Income Source, by Type and Demographic Characteristic, California, 2018-2021



Note: Author's analysis of SIPP. Universe is California adults age 65+. Pension income includes retirement, disability, and survivor benefits from a union, private employer, or government pension. Property income includes rental income, interest, and dividends excluding returns on assets held in retirement accounts. 401(k)/IRA income includes income from employer-sponsored retirement accounts, IRAs, or Keogh plans.

Poverty status is measured by the U.S. Census Bureau at the family level, based on the number of family members within a household and their total income. For the purposes of this study, we estimated the share of retirees with family incomes above 200% of the Federal Poverty Level (FPL), a commonly used subsistence threshold for high-cost states like California. In 2021, 200% FPL for older households was \$25,992 for singles and \$32,758 for couples.¹⁸ According to the University of Massachusetts Boston Elder Index—a more comprehensive measure of basic retirement income needs than 200% FPL—in California, a single senior renter in good health needed \$34,680 in 2022, while the average senior renter couple needed \$46,256 to avoid significant economic hardship.¹⁹

Poverty Analysis Findings

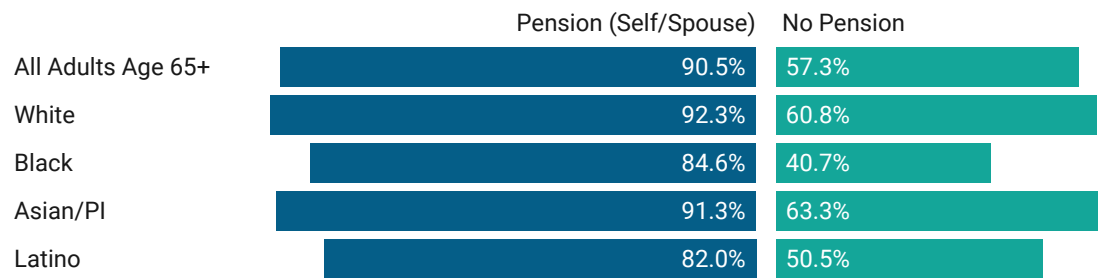
Figure 5 shows that a significantly larger share of California retirees with pension income were above 200% FPL in 2016-2021 (90.5%) compared to retirees without pension income (57.3%). There were similar increases among white and Asian retirees in the likelihood of being above 200% FPL (92.3% vs. 60.8% and 91.3% vs. 63.3%, respectively). Pension income made the largest difference for Black and Latino retirees. Among Black retirees, those with pension income were 108% more likely to live

above 200% FPL (84.6% vs. 40.7%). Latino retirees with pension income were 62% more likely than those without a pension to exceed this basic income threshold (82.0% vs. 50.5%).²⁰ (See Figure 5.)

The economic security of both retired men and retired women is improved by pension income, with a larger relative boost for women (**Figure 6**). Male retirees with pension income were 55% more likely to be above 200% FPL than those without pension income (92.3% vs. 59.4%) in 2016-2020. Female retirees with pension income were 60% more likely to have incomes above this threshold than those without pension income (89.0% vs. 55.8%).

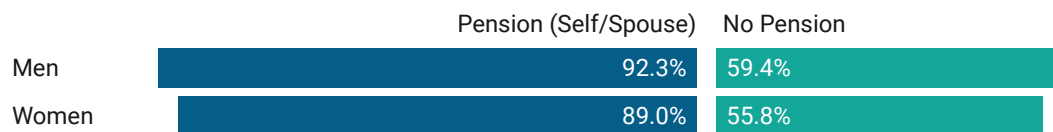
In addition, across educational attainment levels retirees fare better economically with a pension, with the largest improvement among those without a four-year college degree (**Figure 7**). Nearly all retirees with pension income who had a bachelor’s degree or higher, compared to about three out of four among those without pension income, were above the 200% FPL threshold in 2016-2021. Retirees with some college education or an associate degree were 53% more likely to be above 200% FPL if they had pension income (89.1% vs. 58.2%). Those with no college education were 70% more likely to be above 200% FPL if they had pension income than those without a pension: 82.9% of retirees with pension income exceeded 200% FPL, compared to 48.7% of those without.

Figure 5. Share of Retirees Age 65+ above 200% Federal Poverty Level, by Race. California, 2016-2021



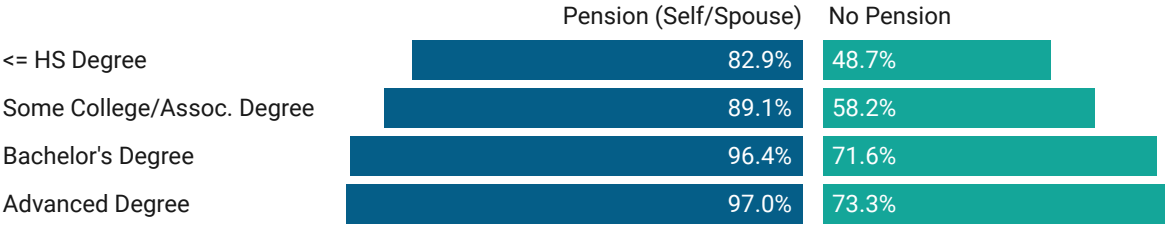
Note: Author’s analysis of CPS ASEC. Universe is adults age 65 and older with less than \$5,000 in annual earnings and at least \$5,000 in annual Social Security benefits.

Figure 6. Share of Retirees Age 65+ above 200% Federal Poverty Level, by Gender, California, 2016-2021



Note: Author’s analysis of CPS ASEC. Universe is adults age 65 and older with less than \$5,000 in annual earnings and at least \$5,000 in annual Social Security benefits.

Figure 7. Share of California Retirees Age 65+ above 200% Federal Poverty Level, by Educational Attainment, California, 2016-2021



Note: Author's analysis of CPS ASEC. Universe is adults age 65 and older with less than \$5,000 in annual earnings and at least \$5,000 in annual Social Security benefits.

III. Pensions Reduce Wealth Inequality Among Older Families

In addition to ensuring a dignified retirement for recipients and buffering vulnerable communities against economic hardship, pension income represents a significant source of household wealth for older Californians. In this section, we analyze the distribution of pension income in California, then estimate the present value of this stream of lifetime income in order to measure its impact on older family wealth. The results indicate that pensions contribute significantly to middle-class family wealth and reduce inequality, generating the largest percentage increases in median net worth for Black families, female-headed families, and families headed by people without a four-year college degree.

In 2018-2021, 2.1 million Californians age 55 and older received pension income totaling \$47.2 billion annually. Nearly 1.1 million received public pensions, which provided \$28.4 billion, or 60% of total pension income. More than 1 million received private pension income. A slight majority (51%) of pensioners are women. More than half of pensioners (53%) do not have a bachelor’s degree. People of color make up 35% of pensioners. (See **Table 1**).

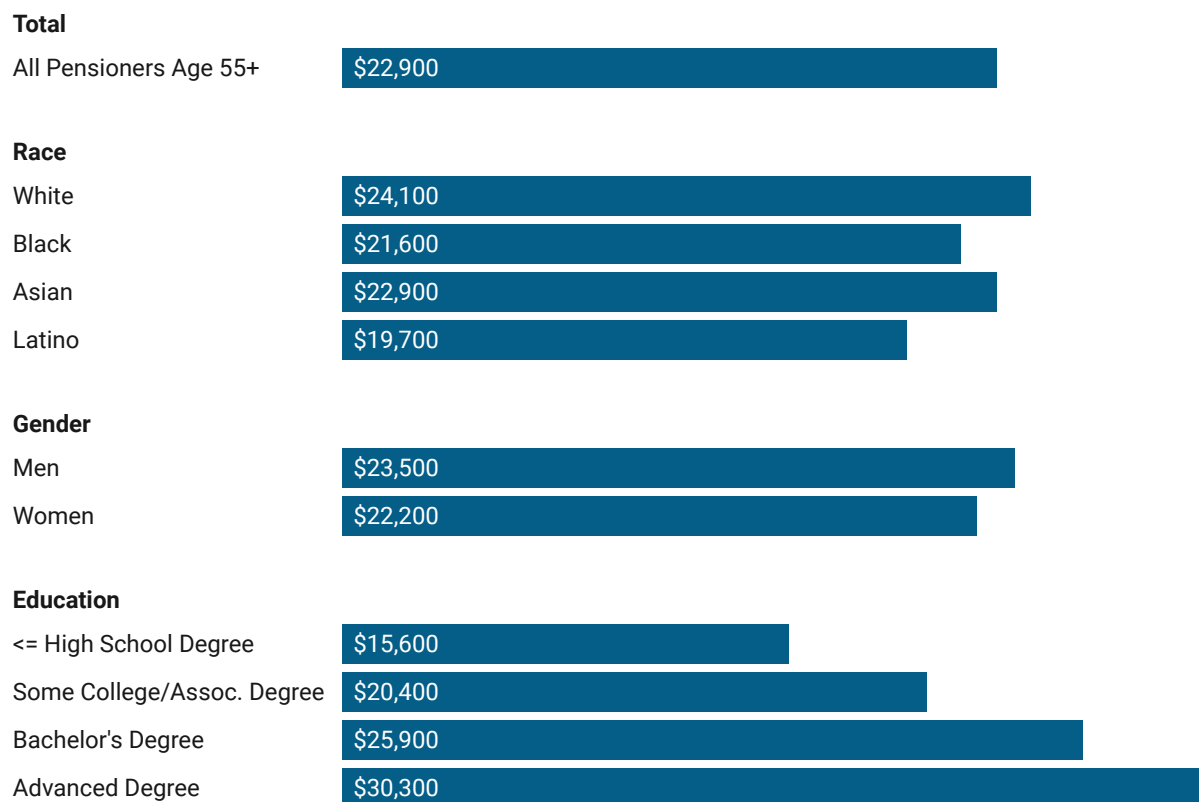
Average pension income is relatively even by race and gender among California pensioners (**Figure 8**). The mean benefit for all pensioners was \$22,900. Compared to all other forms of income (except for Social Security), there was a remarkably narrow band of variation by race, from 86% of average among Latino pensioners (\$19,700) to 105% of average among white pensioners (\$24,100). Black pensioners received 94% of average pension income (\$21,600).

Table 1. Demographics of Pension Income Recipients Age 55+, California, 2018-2021

		% of Total
Race	White	65%
	Black	7%
	Asian	11%
	Latino	14%
	Other	3%
Gender	Men	49%
	Women	51%
Marital Status	Married, Spouse Present	54%
	Single/Divorced/Widowed	46%
Education	<=HS Degree	22%
	Some College/Assoc. Degree	31%
	Bachelor’s Degree	23%
	Advanced Degree	23%
Age	55 to 64	19%
	65 to 74	44%
	75+	38%

Note: Author’s analysis of 2019-2022 SIPP. Universe is California adults age 55 and older who received a retirement, disability, or survivor pension from a union, private employer, or government plan. Distributions may not add up to 100% due to rounding.

Figure 8. Mean Pension Income Among Pensioners Age 55+, by Race, Gender, and Education, California, 2018-2021 (2021 dollars)



Note: Author's analysis of 2019-2022 SIPP. Universe is California adults age 55 and older who received a retirement, disability, or survivor pension from a union, private employer, or government plan.

Pension Wealth Imputation Methodology

To analyze the impact of pensions on the overall distribution of wealth, we drew on SIPP data. SIPP, like other surveys of household wealth, does not include the value of pensions. However, a stream of regular pension income can be translated into lump-sum wealth (or “present value”) based on the recipient’s life expectancy. To measure the wealth distribution impacts of pensions, we calculated the present value of pension benefits over the remainder of each pensioner’s life expectancy. For public pension benefits, we applied a 2% annual increase in benefits to account for the fact that nearly all state and local government pension plans in California provide automatic annual inflation adjustments, usually capped at 2%.²¹ To convert the resulting flow of payments into a net present value (i.e., lump-sum amount in 2021 dollars), we used a 5.5% discount rate that represents the liability-weighted average of actuarial discount rates across the entire universe of pension plans. Actual pension fund discount rates vary by sector. Thus, the main goal of using this method was to produce consistent estimates of pension wealth across public and private sources.

We analyzed the pension income of people age 55 and older to capture a larger share of pension benefits. While most workers with pensions retire in their 60s, police and firefighter pensions typically have a normal retirement age of 55. In addition, pension plans offer disability pensions for workers who become permanently disabled on the job but are not yet eligible for regular retirement pensions.

The results presented below include only the wealth value of pensions currently in payment, which represent approximately half of pension obligations for both public and private plans.²² It was not practical within the scope of this study to estimate the wealth value of pension benefits not yet in payment.²³

Details about mortality assumptions and the rate weighting method are provided in the Appendix.

Pension Wealth Model Results

Pension payments to adults age 55 and older in California translate into \$568.9 billion in household wealth. Public pensions account for 64%, or \$361.3 billion.

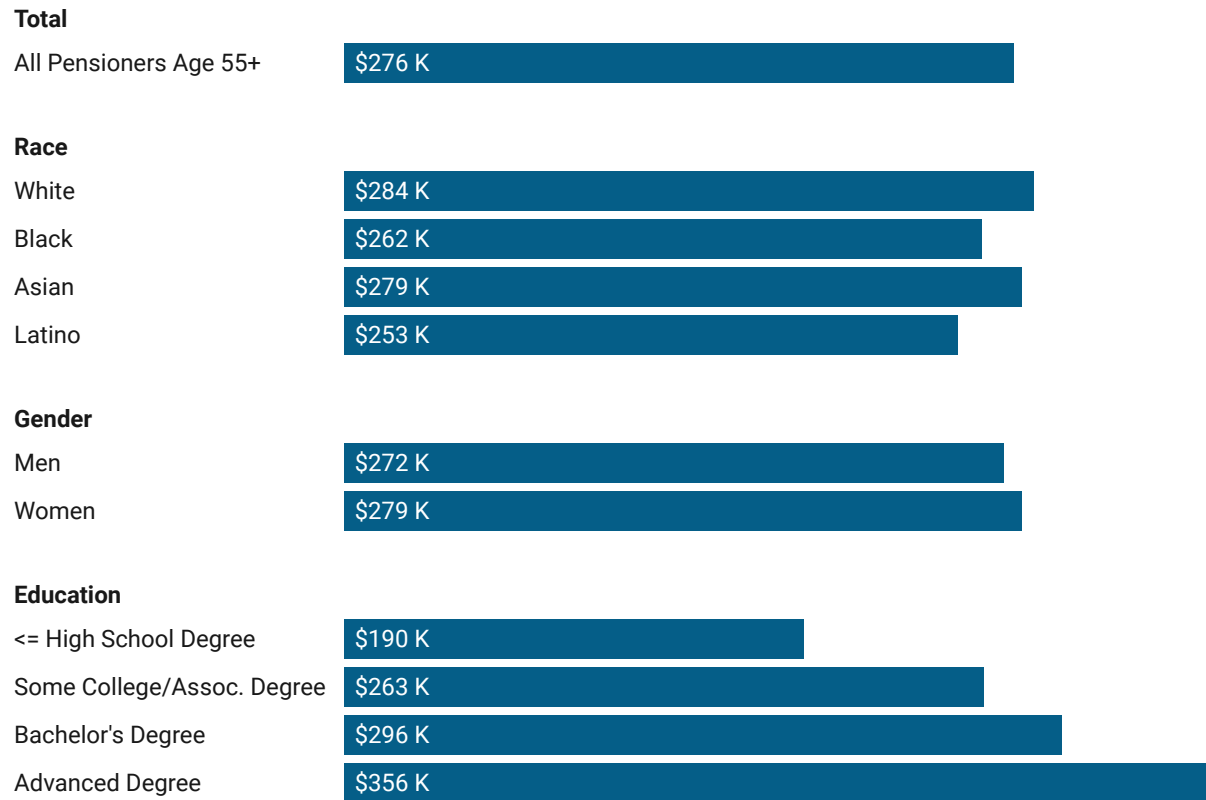
Figure 9 presents the estimated average (mean) wealth value of pensions in payment by race, gender, and educational attainment. California pensioners age 55 and older averaged \$276,000 in pension wealth in 2018-2021.²⁴ The distribution of pension wealth by race is markedly even among pension income recipients. Average pension wealth by race ranged from \$253,000 for Latino pensioners to \$284,000 for white pensioners. Black pensioners held an average of \$262,000 in pension wealth, and Asian pensioners had an average of \$279,000. In terms of gender, men and women had virtually the same level of pension wealth (\$272,000 and \$279,000, respectively). Pension payments over women's longer life expectancy offset part of the pension benefit gap created by lower lifetime earnings among women.

Unsurprisingly, mean pension wealth varies significantly by educational attainment, from \$190,000 for non-college-educated pensioners to \$356,000 for those with advanced degrees (Figure 9). At the same time, as we show below, pensions have a disproportionately large impact on the overall wealth profile of the former group.

The relatively even distribution of pension wealth among pension recipients exerts a positive impact on the overall distribution of wealth among older families by race, gender, and educational attainment. **Figure 10** illustrates the percentage increase in typical (median) family net worth resulting from the addition of pension wealth, identifying the separate and combined effects of private and public pensions. California families with reference persons age 55 and older in the SIPP dataset were selected for this analysis. Findings are broken out by race, gender, and educational attainment of the family reference person (typically the first person listed as the owner or renter of the housing unit).²⁵

Pension wealth increased the median net worth of older Black families in California by 55.7%, and public pensions accounted for most of this difference (28.9%) (Figure 10). The increase in median net worth from pension wealth among older Latino families (17.8%) was substantial, but lower than

Figure 9. Mean Wealth Value of Pension Income Among Pensioners Age 55+, by Race, Gender, and Education, California, 2018-2021 (2021 dollars)

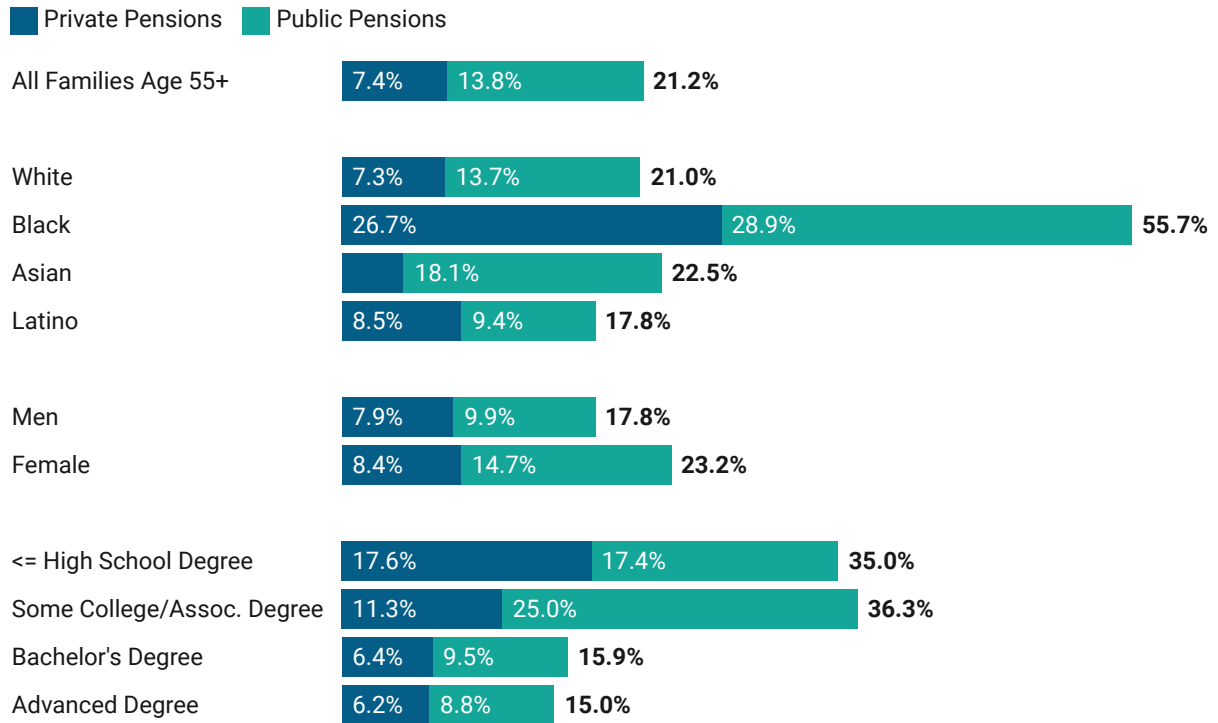


Note: Author's analysis of SIPP, 2019-2022 appended sample. Universe is California adults age 55 and older who received a retirement, disability, or survivor pension from a union, private employer, or government plan. See Appendix for pension wealth imputation methodology.

for other racial groups due Latinos' low rate of pension income receipt and lower pension benefits. Pension wealth increased the typical net worth of older white families by 21.0%, and that of older Asian families by 22.5%.

Figure 11 shows the increase in aggregate family net worth due to pension wealth, by race. Based on baseline wealth data in SIPP, pension wealth increased the aggregate net worth of older families in California by 6.9%, and that of older white families by 6.6%. The collective wealth of older Black families increased 10.5% after accounting for pension wealth, and public pensions alone accounted for an increase of 7.8%. Latinos' collective wealth increased by 9.9%. The relative increase in aggregate net worth resulting from pensions is higher for female-headed families than for male-headed families (7.7% vs. 6.2%). Similarly, the inclusion of pension wealth increased the collective net worth of families headed by people without a four-year college degree to a greater extent than that of those with a bachelor's or advanced degree (approximately 8% vs. 6%).

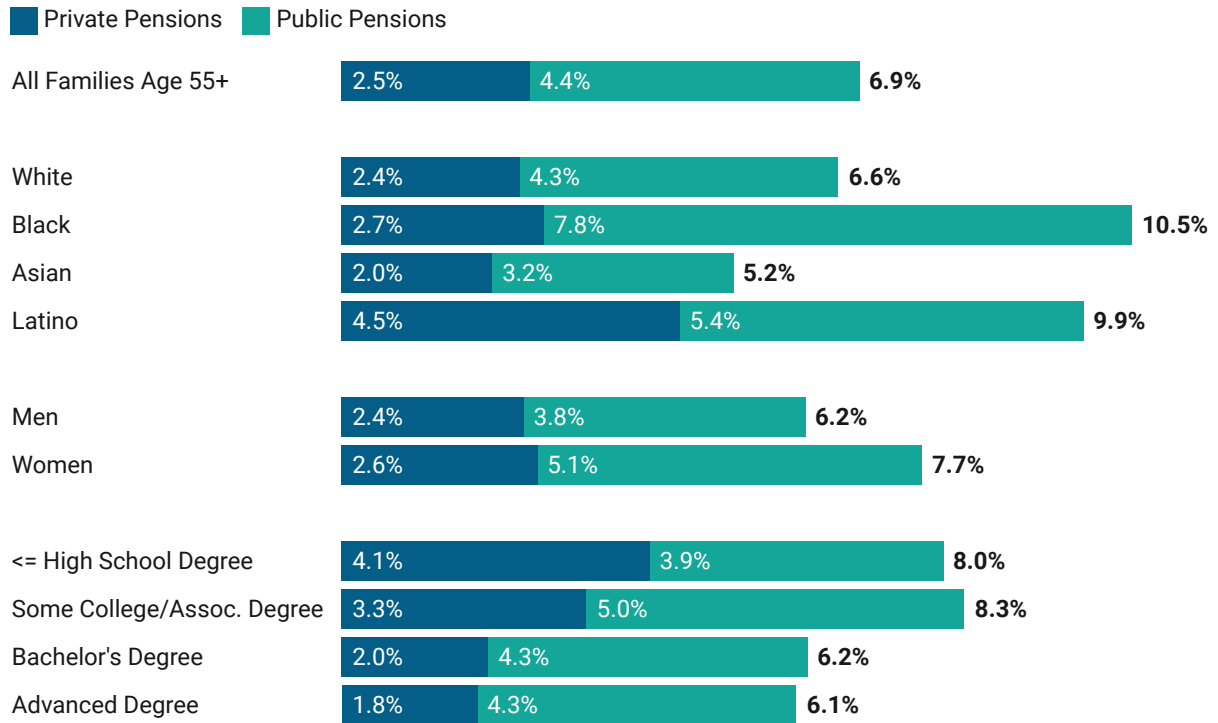
Figure 10. Increase in Median Net Worth of California Families Age 55+ from Wealth Value of Pension Income, by Race, Gender, and Education



Note: Author's analysis of 2019-20212 SIPP, covering calendar years 2018-2021. Universe is California families with reference persons age 55 and older. Race, gender, and education categories are attributes of the family reference person. Totals may not add up due to rounding. See Appendix for pension wealth imputation methodology.

However, the impact of pension wealth on the aggregate net worth of older families is probably even more skewed towards marginalized groups than Figure 11 suggests. Due to its methodology and data disclosure practices, the SIPP public dataset significantly undercounts the wealth of the richest households, which are overwhelmingly white, male-headed, and college educated. Thus, the SIPP yields 14% lower total U.S. older family net worth and 17% lower white older family net worth for 2019 compared to the Survey of Consumer Finances (SCF), which was designed to better capture the assets of the richest households. In addition, the SIPP seems to overestimate the aggregate net worth of Black and Latino families compared to SCF. While the median wealth estimates in Figure 10 are not significantly affected, Figure 11 likely overestimates the impact of pensions on total older family wealth and the collective wealth of white families and male-headed families, and possibly underestimates the impact on Black and Latino families.

Figure 11. Increase in Aggregate Net Worth of California Families Age 55+ from Wealth Value of Pension Income, by Race, Gender, and Education

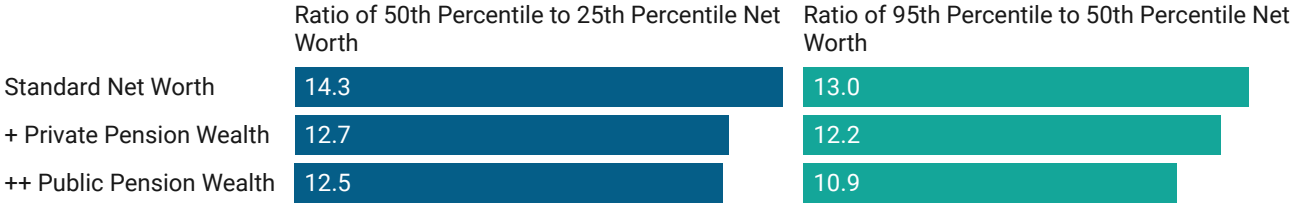


Note: Author's analysis of 2019-20212 SIPP, covering calendar years 2018-2021. Universe is California families with reference persons age 55 and older. Race, gender, and education categories are attributes of the family reference person. Totals may not add up due to rounding. See Appendix for pension wealth imputation methodology.

Pension wealth measurably reduces overall wealth inequality among older families in California. We calculated the impact of pension wealth on two metrics of wealth inequality: 1) the ratio of 50th percentile family net worth to 25th percentile family net worth and 2) the ratio of 95th percentile family net worth to 50th percentile family net worth. The first ratio represents the wealth gap between middle- and low-asset families, while the second represents the wealth gap between middle-asset and highly affluent families.²⁶ Higher ratios indicate higher inequality.

The results are shown in **Figure 12**. First, private pension wealth significantly reduced inequality within the bottom half of the wealth distribution in 2018-2021, lowering the 50th to 25th percentile wealth ratio from 14.3 to 12.7. Adding the public pension wealth decreased this ratio slightly further, to 12.5. Second, both private and public pensions significantly reduce wealth inequality between the top (95th percentile) and middle (50th percentile) of the wealth distribution, with public pensions playing a larger role. Adding private pension wealth to the standard measure of net worth decreased the 95th to 50th percentile wealth ratio from 13.0 to 12.2, and public pension wealth further reduced this ratio to 10.9.

Figure 12. Impact of Pensions on Wealth Inequality Among California Families Age 55+



Note: Author’s analysis of 2019-2021 SIPP, covering calendar years 2018-2021. Universe is California families with reference persons age 55 and older. Race, gender, and education categories are attributes of the family reference person. Totals may not add up due to rounding. See Appendix for pension wealth imputation methodology.

Conclusion

Public pension benefits are vital community assets and an important policy tool in the fight against race, gender, and class inequality in California. Pensions ensure adequate retirement income, providing a critical buffer against economic hardship in old age for all groups, with the greatest effects on retired women, Black and Latino retirees, and retirees without a four-year college degree. Pensions also represent a significant form of household wealth that boosts middle-class net worth and yields particularly large impacts on the wealth of older Black families, women, and people without a four-year college degree.

Given the decline of corporate pensions and the rise of highly unequal 401(k) benefits in the private sector, public pensions serve as a critical bulwark for middle-class retirement security alongside Social Security. As state and local policymakers in California continue to grapple with an aging society, persistent race and gender disparities in economic outcomes, and rising class inequality, public pensions should be viewed as a powerful means to promote economic security and wealth equity across race, gender, and educational divides.

Methodology Appendix

Employment and Workplace Retirement Plan Participation

We estimated public sector employment and workplace retirement coverage based on IPUMS CPS ASEC data. Employment sector (public vs. private) was based on each respondent's longest-held job during the calendar year. In addition, to compensate for known problems with underreporting in response to the CPS ASEC survey question about workplace retirement benefit coverage since the survey's redesign in 2014/2015, we also included workers who reported receiving dividend or interest income from a qualified retirement plan. This method is less precise than the one developed by Sabelhaus (2022) using CPS and IRS Statistics of Income, but we deem it sufficient for the purposes of this study.²⁷

Applied nationally, the above method matched the private sector benchmark (51% private sector participation rate in 2019 per the U.S. Bureau of Labor Statistics' National Compensation Survey), but fell significantly short of the 83% state and local government benchmark. This is likely because most public employees are covered by a DB pension as the sole or primary retirement plan, while the retirement plan coverage estimation method described above uses supplemental variables related to DC and IRA accounts and none related specifically to DB pensions. To partially offset this bias, private sector employees who reported receiving interest income from a plan consistent with their sector, and public employees who reported interest income from any kind of qualified retirement plan, were added to the retirement plan participant count. The results were still skewed against the public sector, so we applied a small upward adjustment factor to public sector participation rates so that the two sectors had the same relative magnitude of difference when compared to the NCS.

Retiree Poverty Analysis

For retiree poverty analysis, we used CPS ASEC data for calendar years 2016-2021 (2017-2022 surveys). The universe was defined as adults age 65 and older with the following personal income profile: less than \$5,000 in annual earnings and at least \$5,000 in Social Security or pension income. CPS ASEC includes a variable on the ratio between each person's family annual income and the Federal Poverty Level, which we used to determine which retirees were above 200% FPL. For the purpose of comparing poverty outcomes, individuals were counted as having pension income if they reported having retirement, disability, or survivor income from a union or corporate pension; a state or local government pension; a federal civilian pension; a military pension; or U.S. Railroad Retirement pension—or if any of these income sources were reported by their spouse.

For the poverty analysis, we used alternative weights developed by the Census Bureau to compensate for higher non-response rates among lower-income households during the pandemic for the 2019, 2020, and 2021 survey years (ASECWTCVD in IPUMS). All dollar amounts were adjusted to 2021 values using the CPI99 variable and associated annual deflators provided by IPUMS.

Survey on Income and Program Participation

The U.S. Census Bureau's Survey of Income and Program Participation (SIPP) is a nationally representative panel survey. Its latest iteration consists of overlapping four-year panels, with a new panel launched every year. The 2018 panel launched in 2018, with the first wave covering the 2017 calendar year. However, due to the COVID-19 pandemic, the 2019 panel was discontinued after the first year. For this report, we combined the 2019, 2020, 2021, and 2022 releases of SIPP data in order to increase the unweighted sample size for this study. The Census Bureau weights the SIPP dataset so that the combined panels in a given year add up to the population for that year. SIPP data is generally not useful for state-level estimates, but large states, especially California have the advantage of a larger sample within SIPP, especially when samples are combined across multiple years.

The pandemic created difficulties with under-response rates for all household surveys including SIPP, with lower-income households and communities of color disproportionately impacted. We checked estimates for individual years in order to guard against potential idiosyncratic distortions of findings.

In addition, we found approximately 5,400 families in the national SIPP dataset with more than one family reference person in the same month. In those cases, we used age and income tiebreakers to create a clean set of family reference persons in the December monthly records (which we used for asset distribution analysis), first selecting the oldest person family reference persons status, and then the person with higher annual personal income.

SIPP data consists of person-month records. For analyzing income, we aggregated pensions and other monthly personal income variables into annual totals at the individual level, and then aggregated the results at the family level.

SIPP includes detailed variables on the source and amount of income. We considered someone to have pension income if they reported receiving retirement, disability, or survivor income from a union or corporate pension; a state or local government pension; a federal civilian pension; a military pension (not counting Veterans Administration benefits) or U.S. Railroad Retirement pension. However, income amount variables for some of the least common pension income sources were redacted from the public dataset, so not all sources were counted for pension income estimates.

Imputation of Pension Wealth

The SIPP includes estimates of pension income, but not the wealth value of pensions. We imputed pension wealth among pension recipients as the net present value of pensioners' annual pension income benefit. The imputation model for estimating the wealth value of pensions builds on the author's previous work in partnership with professional actuaries comparing the value of pensions with hypothetical 401(k)s for public school teachers.²⁸ It is generally similar to the methodology in Sabelhaus & Volz (2019) for imputing the wealth value of pension income, except for different assumptions and methods regarding the discount rate and the fact our study uses more finely grained mortality assumptions.

For this study, we first calculated full-year benefit amounts by multiplying the pension income reported for December of the SIPP survey reference year by 12. (This is because some pensioners began to receive their pension after January of the reference year, so their annual total would not represent a full year of pension income.) Then we multiplied the annualized benefit for each recipient by an annuity factor, calculated as the cost or present value of \$1 of annual income for the remainder of someone's life, given key demographic and economic factors. For example, if the annuity factor is 15, the present value of a \$10,000 annual pension is \$150,000. Annuity factors are calculated from three key inputs: mortality rates, assumptions about Cost of Living Adjustments (COLAs), and an interest rate. For this study, we used Society of Actuaries (SOA) RP-2014 mortality rates projected forward with SOA generational mortality improvement scale MP-2018;²⁹ a 2% COLA for public pensions and none for private pensions; and a 5.5% discount rate that reflects the actuarial liability weighted average across private, state/local, and federal pension plans, explained at length in the section that follows.

RP-2014 mortality rates are differentiated by blue collar/white collar, male/female, and disabled/healthy annuitant, resulting in 8 sets of rates. We checked a sampling of our annuity factor results against the SOA's online annuity factor calculator using the same mortality table and projection scale, and found that the results closely matched. In addition, RP-2014 is based on private pension mortality experience, and public pension participants have longer life expectancy. Thus, public pensions either use their own base mortality tables or apply adjustment factors to RP-2014 rates. Based on a sample of several state pension plans that do the former, we applied an adjustment factor of .78 through age 79 and 1.13 for age 80 and older. The results were found to be similar to published sample mortality rates from a small sampling of large public pension plans.

Each pensioner in the SIPP sample was matched with an annuity factor specific to their gender, age, education, whether or not their pension was a disability pension, and whether their pension came from a public or private sector plan. Given the lack of past occupation data in the 2018-2021 SIPP, we used education as a proxy: white collar mortality rates for those with a Bachelor's Degree or higher, and blue-collar mortality rates for all others.

To keep computational load manageable, we assumed that each pensioner chose a single life annuity, i.e., that the monthly pension benefit they received during the SIPP survey reference period will stop when the pensioner dies. However, most married people receive pension benefits as a joint-and-survivor annuity that continues in full or in part to a spouse or named survivor when the original recipient dies. Joint-and-survivor benefit options reduce the monthly benefit compared to a single life annuity because it covers a longer, joint life expectancy. In order to choose a single life annuity instead, the retiree must obtain a signed release from their spouse per federal regulations for private pensions and state policy for state and local pensions. This means that this report underestimates the value of pension income among most married people receiving retirement pensions, because the pension benefit payments are only projected over the retiree's life expectancy rather than the longer, joint life expectancy of retiree and spouse.

Discount Rate

We applied a uniform discount rate of 5.5% in order to have apples-to-apples valuation of pension wealth across the entire universe of pensions, private, state/local, and federal. This is the average actuarial discount rate across all private and public pensions, weighted by (normalized) actuarial liabilities, calculated as follows:

- First, we gathered data on pension fund actuarial liabilities and discount rates for public and private pensions. For state/local pensions, we used the national total actuarial liability estimate from the Annual Survey of Public Pensions and calculated a liability-weighted mean discount rate from the Public Funds Survey dataset for 2020. For private pensions we used the national aggregate private pension liability estimate from Federal Reserve series Z.1 and a liability-weighted mean discount rate derived from Form 5500 data. For each federally managed pension system (CSRS, FERS, military, and Railroad Retirement Fund), we used data from their actuarial reports.
- Next, we normalized pension liabilities using a single arbitrary discount rate of 5% using the method developed by actuary Doug Chandler for adjusting pension liabilities for different discount rates.³⁰ In addition to reported actuarial liabilities and discount rates, a key input into this method is the share of pension liabilities associated with pensions already in payment. To calculate this share for private pensions, we used Form 5500 data. For state and local pensions, we calculated the average share from actuarial valuations for the 10 largest pension plans in the Public Plans Database maintained by the Center for Retirement Research at Boston College.³¹ For each federal pension system, we used data from their actuarial report.
- Finally, we calculated the mean actuarial discount rate for all pensions, weighted by the normalized liability estimates.

The resulting 5.5% discount rate is lower than the current average of 6.8% for state and local pensions, and higher than the current AAA corporate bond yield of approximately 4.5%. A lower discount rate would increase the estimated value of pensions. The discount rate matters little in a comparison of the distribution pension wealth among recipients, or across the whole population. However, to the extent that this report uses a higher discount rate than the corporate bond rate, it understates the impact of pensions on the overall distribution of household wealth compared to studies that use a lower discount rate.³²

Finally, while it might have been preferable to include estimates of pension wealth for workers covered by DB pensions who are not yet retired, this was impractical given data limitations. SIPP does not provide past job tenure data that would allow reasonable estimates of future pension benefits. While the Federal Reserve's Survey of Consumer Finances does provide job tenure data for workers in DB plans, the tenure distribution in the public dataset for 2019 at the time of our study was markedly skewed in relation to the typical tenure distribution reported by pension plans. In addition, the public SCF dataset does not allow the identification of public sector employees or public pension recipients.

Endnotes

- 1 Nari Rhee, 2023, "Closing the Gap: The Role of Public Pensions in Reducing Retirement Inequality," National Institute on Retirement Security and UC Berkeley Center for Labor Education, <https://www.nirsonline.org/reports/closingthegap/>.
- 2 Author's analysis of SIPP; U.S. Census Bureau, Survey on Income and Program Participation, <https://www.census.gov/programs-surveys/sipp.html>.
- 3 According to the author's analysis of the Federal Reserve's Survey of Consumer Finances, U.S. households had \$46.1 trillion in financial assets and \$16.6 trillion in 401(k)-type retirement accounts and IRAs in 2019. Adding the Federal Reserve's estimate of \$16.1 trillion in defined-benefit pension wealth, the financial asset total is \$52 trillion and the retirement asset total is \$32.7 trillion.
- 4 Lindsay Jacobs, Elizabeth Llanes, Kevin Moore, Jeffrey Thompson, and Alice Henriques Volz, 2021, "Wealth Concentration in the United States Using an Expanded Measure of Net Worth," Federal Reserve Bank of Boston Working Paper No. 21-6, <https://doi.org/10.29412/res.wp.2021.06>; John Sabelhaus and Alice Henriques Volz, February 1, 2019, "Are Disappearing Employer Pensions Contributing to Rising Wealth Inequality?," FEDS Notes, Board of Governors of the Federal Reserve System.
- 5 Frank Porell and Beth Almeida, "The Pension Factor: Assessing the Role of Defined Benefit Plans in Reducing Elder Hardships," 2009, National Institute on Retirement Security, p. 9, <https://www.nirsonline.org/reports/the-pension-factor-assessing-the-role-of-defined-benefit-plans-in-reducing-elder-hardships/>.
- 6 U.S. Census Bureau, op cit.; Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles, J. Robert Warren and Michael Westberry, 2022, Integrated Public Use Microdata Series, Current Population Survey: Version 10.0 [dataset], IPUMS, <https://doi.org/10.18128/D030.V10.0>.
- 7 In 2018-2021, workers of color made up 64% of all wage and salary workers age 21-64 in California.
- 8 All charts and tables in this report were created with Datawrapper.
- 9 CalSTRS, "Annual Comprehensive Financial Report – For Fiscal Year Ended June 30, 2021," <https://www.calstrs.com/files/b43a53a11/acfr2021.pdf>; CalPERS, "2021 Annual Review of Funding Levels and Risks," p. 23, <https://www.calpers.ca.gov/docs/forms-publications/annual-review-funding-2020.pdf>.
- 10 State level active membership total compiled by author from State Association of County Retirement Systems (SACRS), <https://sacrs.org/Systems>.
- 11 For instance, California teachers are covered by the CalSTRS pension, but can voluntarily contribute to a 403(b) retirement account offered through CalSTRS or their school district. State of California employees have access to 401(k) and 457(b) plans through the Savings Plus Program.
- 12 For a California head of household earning \$150,000 a year, combined federal and state tax benefits provide up to a 40% subsidy for 401(k) contributions.

13 The U.S. Bureau of Labor Statistics' National Compensation Survey/Employee Benefit Survey indicates that in 2022, only 23% of the lowest-paid private sector employees (bottom quartile) were included in a workplace retirement plan.

14 Author's analysis of 2022 SIPP.

15 Author's analysis of CPS ASEC.

16 The median Social Security claiming age of 65 in 2021 can be inferred from Figure 2 on p. 8 of Congressional Research Service, 2022, "The Social Security Retirement Age," Congressional Research Service Report No. R44670, <https://crsreports.congress.gov/product/pdf/R/R44670>.

17 The estimates in this section are similar to but distinct from the ones presented in the *Closing the Gap* state fact sheet for California that accompanies the national *Closing the Gap* (Rhee, 2023, op cit.) study, which is based on 2014-2021 data rather than 2016-2021.

18 Poverty status is generally measured at the family level based on the number of members, but the vast majority of seniors in comparison universe either lived alone or in a two-person household with a spouse or partner.

19 The Elder Index™ [Public Dataset], Gerontology Institute, University of Massachusetts Boston, 2021, <https://elderindex.org/>. Actual benchmarks are by county; statewide thresholds are weighted averages.

20 All percentage improvement factors in this report were calculated using unrounded data.

21 CalSTRS provides retired teachers a 2% simple COLA, but the California state legislature voluntarily funds the Supplemental Benefit Maintenance Account to ensure that teacher pensions do not fall below 85% of original purchasing power.

22 This is based on our analysis of DOL Form 5500 data for private pensions and a sampling of actuarial reports for large public pension funds.

23 Estimating the wealth value of all accrued pension benefits was not possible due to the limitations of SIPP data related to job history. (A potential alternative data source, the Survey of Consumer Finances, includes a measure of job tenure, but the public dataset lacks detail related to public sector employment and public vs. private sources of pension income.)

24 Average pension wealth values in this report, based on pension income data from SIPP, are lower than the values in the California *Closing the Gap* fact sheet, which are based on CPS ASEC. SIPP and CPS ASEC have similar pension income totals for California. However, the latter shows a larger number of people receiving pension income and lower average benefits than CPS ASEC. The overall distribution of benefits is similar across the two analyses.

25 We first calculated median baseline net worth (a), median net worth after adding private pensions (b), and median net worth after adding both private and public pensions (c). The incremental difference (b-a) is depicted as the change in median net worth from private pension wealth, and the difference (c-b) is depicted as the change in median net worth from public pensions wealth. Results vary slightly if the order of addition is reversed, but the general magnitudes of change and the combined impact of public and private pensions remain the same.

26 The 95th percentile was chosen instead of the 99th because the SIPP does not fully capture the wealth of the richest families, which poses a particular challenge in California. The 25th percentile was chosen because of negligible or negative family net worth below this level.

27 John Sabelhaus, 2022, "The Current State of U.S. Workplace Retirement Plan Coverage," Wharton Pension Research Council Working Paper No. 2022-07, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4049143.

28 Nari Rhee and William B. Forna, 2017, "How Do California Teachers Fare under CalSTRS? Applying Workforce Tenure Analysis and Counterfactual Benefit Modeling to Retirement Benefit Evaluation," *Journal of Retirement* 5(20), pp. 42-65; Nari Rhee and Leon F. Joyner, 2018, "Teacher Pensions vs. 401(k)s in Six States," National Institute on Retirement Security and UC Berkeley Center for Labor Research and Education, <https://www.nirsonline.org/reports/teacher-pensions-vs-401k/>.

29 Society of Actuaries, 2014, "RP-2014 Mortality Tables Report," SOA, <https://www.soa.org/resources/experience-studies/2014/research-2014-rp/>; Society of Actuaries, 2018, "Mortality Improvement Scale MP-2018," SOA, <https://www.soa.org/resources/experience-studies/2018/mortality-improvement-scale-mp-2018/>.

30 Doug Chandler, March 2017, "Discount Rate Sensitivities in Pension Plans," Society of Actuaries and the Canadian Institute of Actuaries, <https://www.soa.org/globalassets/assets/Files/Research/Projects/discount-rate-sensitivity.pdf>.

31 "Public Plans Database" [Public Dataset], Center for Retirement Research at Boston College, <https://publicplansdata.org/>.

32 For instance, Sabelhaus and Volz, op cit. and Jacobs et al., op cit. use a 5% discount rate to calculate the present value of pension benefits.

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