PRRL

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The State of Public-Sector DC Plans: 2022

By Samita Thephasit, Employee Benefit Research Institute, on behalf of the Public Retirement Research Lab

SUMMARY

In this study, public-sector defined contribution (DC) plan participant savings behaviors are analyzed. Specifically, balances, contributions, loan usage, and asset allocation by participants' age and tenure are examined. Some of the key findings include:

Account Balances

- The average account balance for public-sector DC plan participants increased with age and tenure. For instance, the average account balance for participants in their 40s with zero to two years of tenure was $21,886, compared with $70,501 among those with 11 to 20 years of tenure in the same age group.
- The median account balance ranged from $3,017 for those in their 20s to $38,124 for those in their 60s.

Contributions

- The average employee contribution amount for those in their 40s was $4,453 per year, while the median contribution was $2,563.
- The average employee contribution rate (employee contributions divided by salary) was 7.6 percent. This rate increased with age, from 5.2 percent for those in their 20s to 8.4 percent for participants in their 50s, before decreasing to 8.2 percent for those in their 60s.

Loan Usage

- Among participants with access to plan loans, the percentage of those who take loans from their plans by age was hump-shaped, going from 3.9 percent of participants in their 20s to 14.6 percent of participants in their 50s, and decreasing to 10.4 percent of participants in their 60s.
- Participants in their 50s had the highest average outstanding loan balance of $9,023, but they also had the second lowest loan as a percentage of the total account balance of 16.5 percent.

Asset Allocation

- Participants in their 20s had the largest allocations to target-date funds (42.7 percent).
- Allocations to bond funds and money market/stable-value funds increased with age, reaching 7.7 percent and 20.7 percent, respectively, for participants in their 60s, compared with 4.6 percent and 5.5 percent for those in their 20s.

CONTENTS

FIGURES

INTRODUCTION

Employees working in the public sector face a complicated retirement landscape. Public-sector employees are likely to have a defined benefit (DB) pension plan and be offered multiple defined contribution (DC) plans. Some government employers offer DC plans in a "hybrid" structure, consisting of mandatory 401(a) plans and/or supplemental 457(b) plans. The Public Retirement Research Lab (PRRL) was created specifically to address the fragmented landscape and present reliable data on DC retirement plans covering public-sector employees. The data collected by PRRL are contained in the PRRL Database.

This is the third edition of the State of Public-Sector DC Plans report based on the PRRL Database.[1] The analysis reflects data for two hundred eighty-one 457(b), 401(a), 401(k), and 403(b) DC plans; over 2.4 million state, county, city, and subdivision government employees; and $166 billion in assets as of year-end 2022. This publication serves as an update, but not a comparison, to the previous edition, analyzing contributions, loan activity, asset allocation, and account balances as of year-end 2022.

The overall composition of the participating plans is illustrated in Figure 1A. Although the number of governments included in this dataset may seem small compared with the thousands of state and local government entities across the United States, it is important to recognize that many state plans act as the primary DC vehicle for lower-level governments within their states. While these state plans make up only 22 percent of all plans in the PRRL Database, a single state plan can encompass as many as 2,200 separate employers.

Furthermore, 81.5 percent of participants were involved in a state plan, while 9 to 11 percent participated in each of the remaining plan sponsor categories.[2] The "other" category, as mentioned in Figures 1A and 1B, includes various public-sector employers who do not fit into the categories of state, county, or city governments. This category includes entities such as school districts, water or power authorities, fire departments, and public hospitals.

The Public Retirement Research Lab (PRRL) Database is an opt-in collaboration among public retirement plan sponsors. Plan sponsors receive complimentary benchmarking as a participation benefit. For more information on how to participate, please contact NAGDCA Executive Director Matt Petersen at mpetersen@nagdca.org.

Figure 1A
PRRL Database Universe

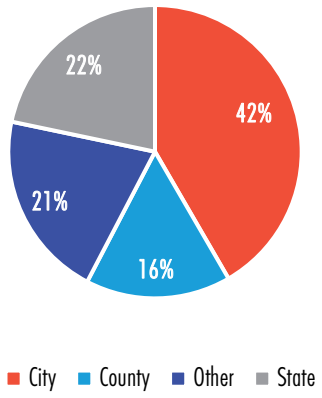
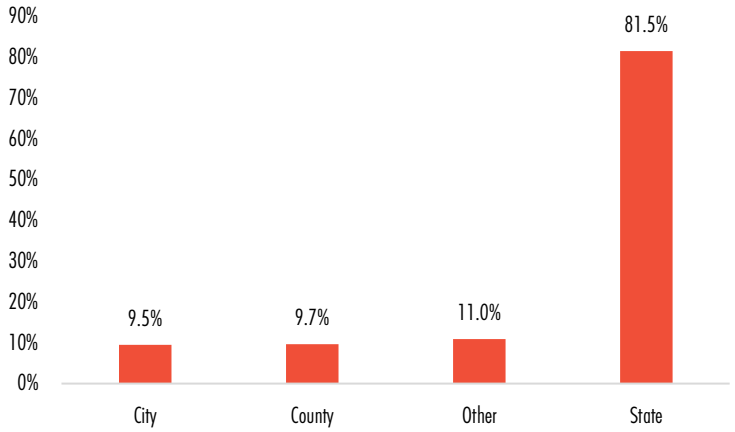


Figure 1B
Participants, by Entity Type



METHODOLOGY

To demonstrate the complexity of public-sector DC plan system structures, this study of the PRRL Database examines four distinct categories of DC plan use: account balances, contributions, loans, and asset allocation. Using these measures, the data are analyzed using two different methods.

One method of analysis, consistent with the National Association of Government Defined Contribution Administrators' (NAGDCA's) past efforts through its Annual Benchmarking Survey, is a description of the four measures by plan type. While this method provides an incomplete picture of retirement readiness at the participant level, as it does not include participant use with multiple plan types, it remains an essential contribution to administrators' understanding of public-sector DC plan use.

The second method of analysis involves aggregating each participant's plan data from various record keepers and plan types. This combined view of total DC assets at the participant level represents a significant innovation unique to the PRRL. It provides a valuable opportunity to assess the retirement readiness of public-sector employees, many of whom actively contribute to multiple plans or may still have a positive balance in plans sponsored by their previous employers. These plans can differ in characteristics (e.g., mandatory vs. voluntary contribution, available investment options), resulting in varying usage patterns. Therefore, this aggregated approach offers a more comprehensive understanding of retirement readiness than analyzing each plan type individually.

One important caveat to this edition of the State of Public-Sector DC Plans is that, although the composition of government types reported in Figure 1A is similar to the prior report, the number of plans and the specific participant population included in the PRRL Database have changed. Differences between average balances, contributions, and other metrics from this report and those previously reported are driven by changes in market conditions as well as changes in the composition of participants in the database.

PARTICIPANT DEMOGRAPHICS AND ASSETS BY PLAN

Figure 2A displays the percentages of participants by plan type, while Figure 2B shows the percentage of assets by plan type.[3] The most common type of plan in the PRRL Database was the 457(b) plan, with 68 percent of participants participating in a 457(b) plan and 60 percent of total assets coming from 457(b) plans. 457(b) plans are typically used in the public sector as voluntary supplemental savings vehicles in conjunction with a DB pension, though this is not always the case.

One-fifth of the total assets in the PRRL Database were invested in 401(a) plans, with 41 percent of participants participating in them. Non-ERISA 401(k) plans represented around 19 percent of the total assets in the PRRL Database, with 30 percent of participants participating in them. It's worth noting that 401(k) plans in the public sector differ from their private-sector counterparts in that they are legacy accounts; only those established prior to 1986 continue to operate.

Finally, a small number of 403(b) plans were represented in the PRRL Database, making up 2 percent of total assets and having 2 percent of individuals participating in these plans. 403(b) plans are often used by public educational institutions (higher education or K–12) and hospitals. A large percentage of public-sector DC assets are held in 403(b) plans, offering a significant area for potential growth in the PRRL Database.

Figure 2A
Participants, by Plan Type

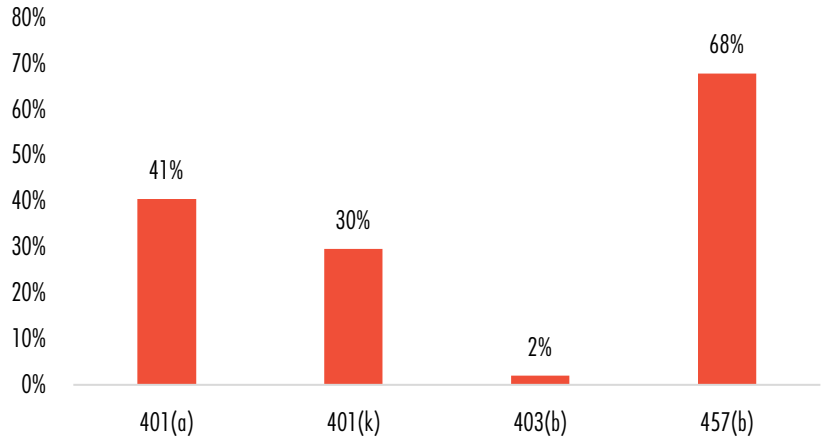
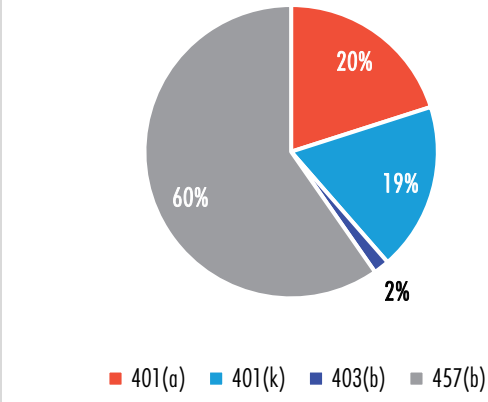
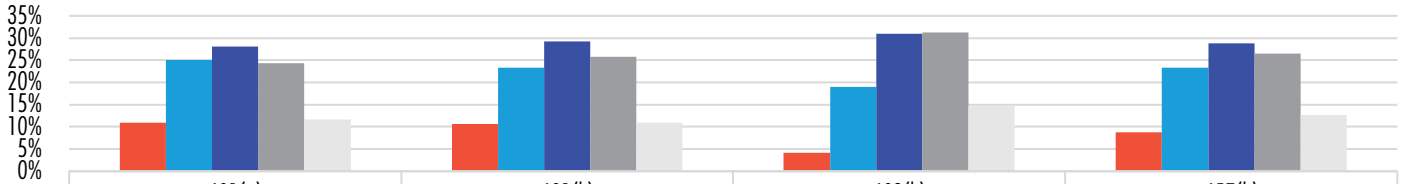


Figure 2B
Assets, by Plan Type



The age distribution of public-sector employees described in Figure 3 illuminates the underlying demographic characteristics of each plan type. The age distribution of 401(a) plans, which are increasingly used as primary plans, is the most symmetrical, centered on those in their 40s with near equal but lower amounts for those ages above and below the 40s. Conversely, plan types more historically used as supplemental plans in the public sector (e.g., 457(b), 403(b), 401(k)) are slightly skewed to the right, showing a higher concentration of older participants.

Figure 3
Participant Ages, by Plan Type

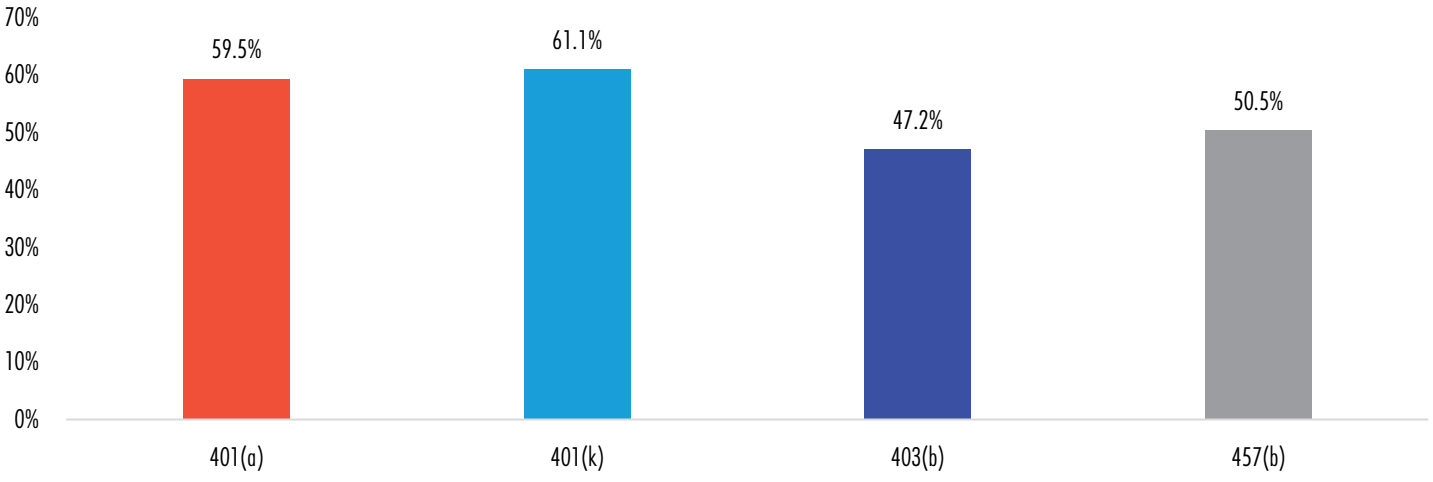


	401(a)	401(k)	403(b)	457(b)
20s	10.9%	10.7%	4.2%	8.8%
30s	25.1%	23.4%	19.0%	23.3%
40s	28.0%	29.2%	30.9%	28.8%
50s	24.3%	25.8%	31.3%	26.5%
60s	11.6%	10.9%	14.6%	12.6%

TOTAL ASSETS

While knowledge of the use of different DC plan types in the public sector is critical to plan administrators, looking at each plan separately does not show the amount that public-sector DC plan participants have in total. In the PRRL Database, 37 percent of participants had money in more than one plan type (for an average of 1.6 plans per participant). Furthermore, between 47.5 percent and 61.1 percent of participants with a specific plan type also participated in another plan type (Figure 4).

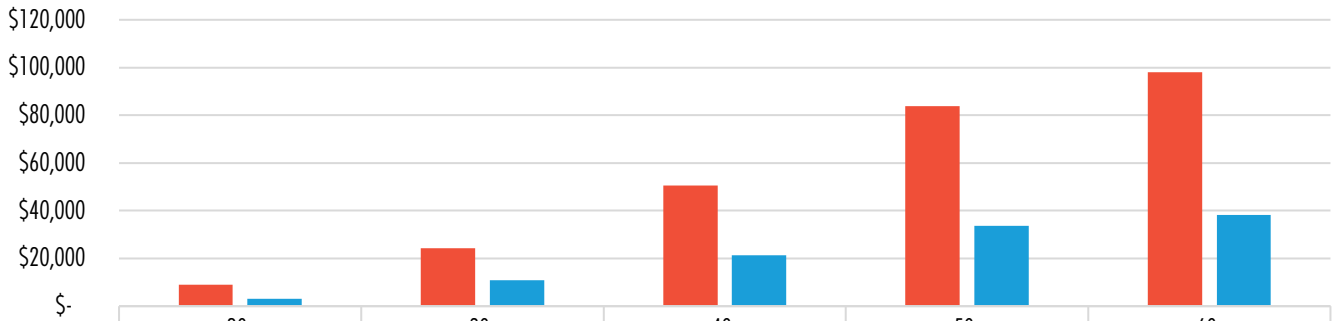
Figure 4
Percentage of Participants With Multiple Plans, by Plan Type



Looking at the combined account balances across all plan types and record keepers in the database, as would be expected, the average and median account balances increased with age (Figure 5). The average account balance for individuals in their 20s was $8,912 and increased to $83,873 and $97,973 for individuals in their 50s and 60s, respectively. However, these averages are heavily

influenced by large account balances. The median account balance of PRRL participants in their 50s and 60s were $33,757 and $38,124, respectively.

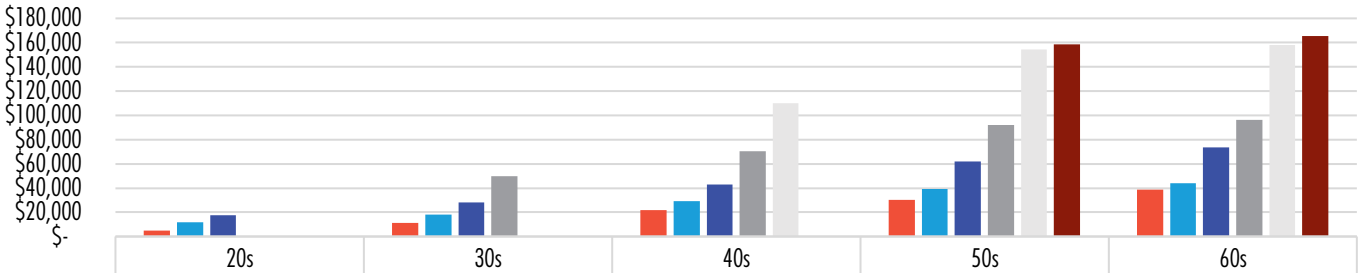
Figure 5
Mean and Median Account Balance, by Age for All Plan Types Combined



	20s	30s	40s	50s	60s
Mean Balance	$8,912	$24,294	$50,566	$83,873	$97,975
Median Balance	$3,017	$10,810	$21,304	$33,757	$38,124

The findings are further broken down in Figure 6 to show the average account balance by both age and tenure.[4] As would be expected, account balances increased with both age and tenure. For example, participants in their 40s with less than three years of tenure had an average account balance of $21,886; participants of the same ages with tenures of 11 to 20 years had an average balance of $70,501.

Figure 6
Mean Account Balance, by Age and Tenure

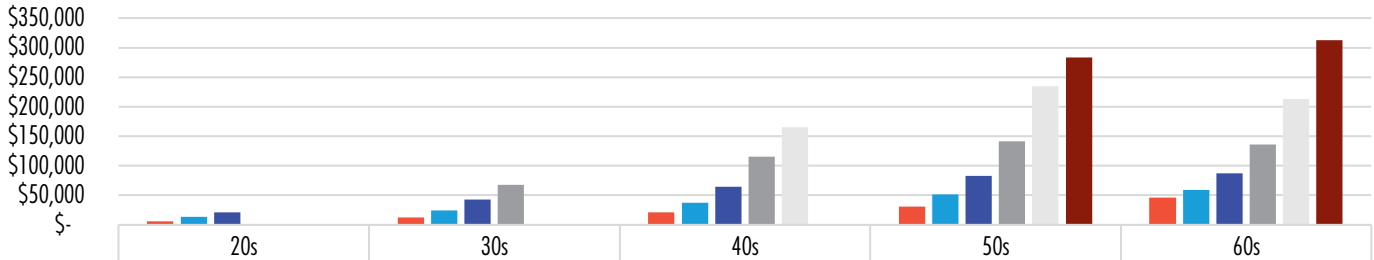


	20s	30s	40s	50s	60s
0–2 Years	$4,631	$11,467	$21,886	$30,398	$38,774
3–5 Years	$11,877	$18,354	$29,088	$39,415	$44,138
6–10 Years	$17,702	$28,226	$42,857	$61,760	$73,664
11–20 Years		$49,643	$70,501	$92,048	$96,078
21–30 Years			$109,929	$154,078	$158,218
31+ Years				$158,387	$165,273

Ultimately, the ability to aggregate public-sector DC data enables the closest comparison with the private-sector data available to date (Figure 7). The accumulated DC savings for public employees in

Figure 6 clearly lag behind the comparable data (from 2022) for private employees in Figure 7 in nearly every category of age and tenure. These results are expected for two distinct but related reasons: DB plans remain the primary retirement vehicle for most public-sector employees, and many public-sector employers do not provide matching contributions to their employees' DC accounts.

Figure 7
Mean Account Balance, by Age and Tenure — Private 401(k) Plans

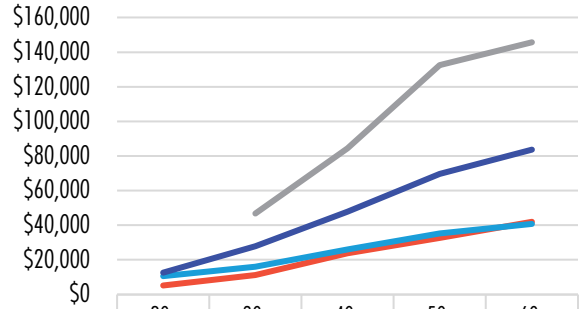


	20s	30s	40s	50s	60s
0–2 Years	$5,780	$12,633	$20,966	$30,575	$46,609
3–5 Years	$13,424	$24,921	$37,959	$51,097	$59,616
6–10 Years	$21,158	$42,907	$64,906	$82,842	$87,847
11–20 Years		$68,003	$114,961	$141,914	$135,768
21–30 Years			$164,865	$234,865	$212,690
31+ Years				$282,992	$312,092

ACCOUNT BALANCE BY PLAN TYPE

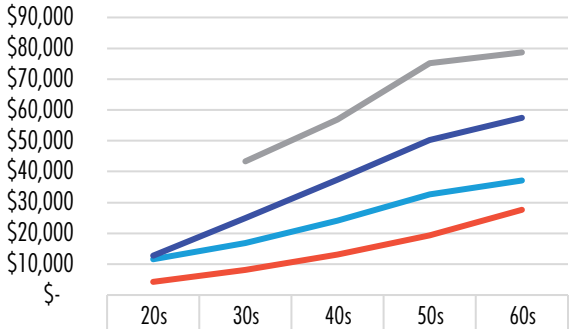
The data in Figures 8–11 show the average account balances for participants in each plan type by four groupings of tenure. To be consistent with the prior report, the same four groupings are used, with those being as follows: (1) less than three years, (2) between three and seven years, (3) greater than seven and less than or equal to 17 years, and (4) greater than 17 years. While each plan type has distinct characteristics, accumulated assets rose with age and tenure as expected. The average account balances for 401(a) plans increased with age and tenure before decreasing for participants in their 60s across all tenure groups. For instance, among participants with three to seven years of tenure, those in their 20s had an average 401(a) plan balance of $5,786. The number increased to $17,026 for those in their 50s and decreased to $14,636 for those in their 60s.

Figure 8
Mean Account Balance, by Age and Tenure — 457(b) Plans



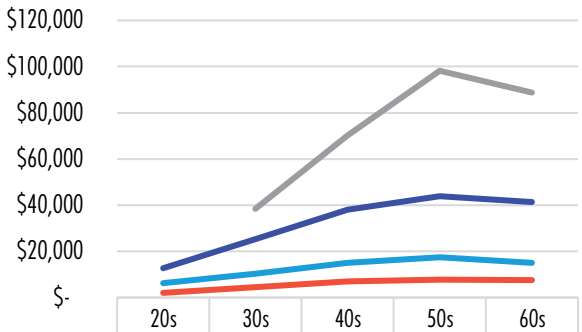
	20s	30s	40s	50s	60s
Less Than 3 Years	$5,234	$11,211	$23,868	$32,644	$42,002
3–7 Years	$10,639	$15,925	$26,179	$35,323	$40,787
7–17 Years	$12,668	$27,985	$48,005	$69,694	$83,668
17+ Years		$46,799	$84,333	$132,446	$145,672

Figure 9
Mean Account Balance, by Age and Tenure — 401(k) Plans



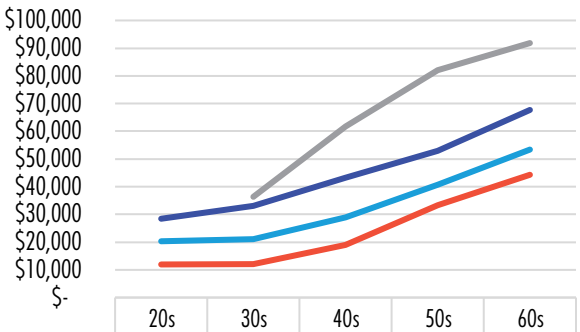
	20s	30s	40s	50s	60s
Less Than 3 Years	$4,265	$8,156	$13,018	$19,429	$27,622
3–7 Years	$11,596	$16,783	$24,023	$32,670	$37,131
7–17 Years	$12,758	$24,894	$37,331	$50,197	$57,451
17+ Years		$43,342	$56,834	$75,187	$78,672

Figure 10
Mean Account Balance, by Age and Tenure — 401(a) Plans



	20s	30s	40s	50s	60s
Less Than 3 Years	$2,042	$4,513	$6,907	$7,769	$7,546
3–7 Years	$6,248	$10,399	$15,028	$17,457	$15,167
7–17 Years	$12,711	$25,207	$37,908	$43,884	$41,303
17+ Years		$38,423	$70,096	$98,206	$88,652

Figure 11
Mean Account Balance, by Age and Tenure — 403(b) Plans



	20s	30s	40s	50s	60s
Less Than 3 Years	$11,948	$12,111	$18,912	$33,227	$44,306
3–7 Years	$20,319	$21,094	$28,908	$40,684	$53,405
7–17 Years	$28,446	$33,119	$43,224	$53,012	$67,701
17+ Years		$36,365	$61,641	$82,092	$91,839

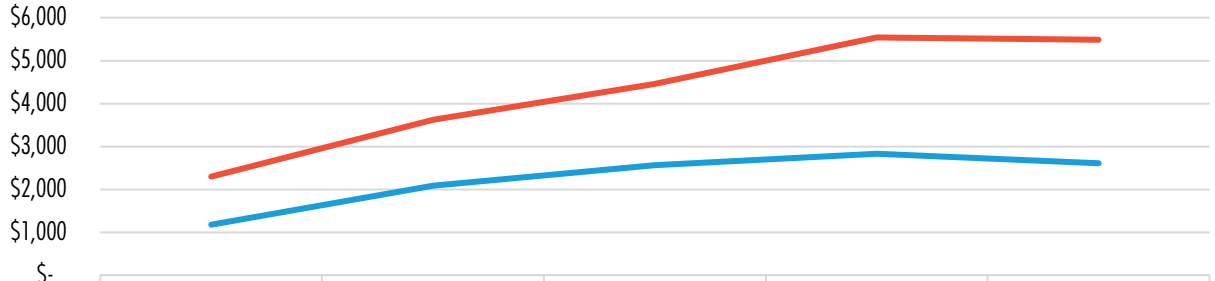
CONTRIBUTIONS BY AGE

Figures 12 and 13 show the dollar amounts contributed by employees to their plans by age. Again, these data are aggregated to show total contributions across all DC plans, per participant. As expected, contributions increased as employees approached retirement age. The data in Figure 13 represent a significantly smaller number of participants due to the limited amount of salary data shared between governments and their DC plan record keepers. Without the salary information, contribution rates cannot be calculated.[5]

The average and median employee contributions increased with age both in dollar amount and as a percentage of salary, but they showed a slight decrease among participants in their 60s. For instance,

the median employee contribution among participants in their 20s was $1,175, which increased to $2,828 among participants in their 50s before dropping to $2,600 among participants in their 60s (Figure 12).

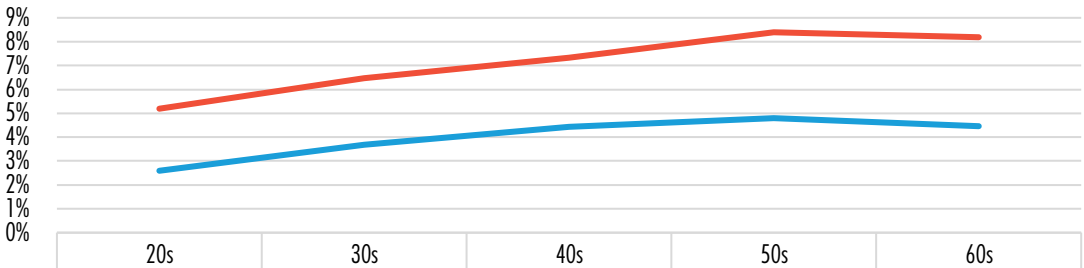
Figure 12
Mean and Median Employee Contributions, by Age



	20s	30s	40s	50s	60s
Median Employee Contribution	$2,295	$3,626	$4,453	$5,539	$5,481
Mean Employee Contribution	$1,175	$2,080	$2,563	$2,828	$2,600

Note: Excludes participants who did not make a contribution in 2022.

Figure 13
Mean and Median Employee Contributions as a Percentage of Salary, by Age



	20s	30s	40s	50s	60s
Mean Employee Contribution Percentage	5.2%	6.5%	7.3%	8.4%	8.2%
Median Employee Contribution Percentage	2.6%	3.7%	4.4%	4.8%	4.5%

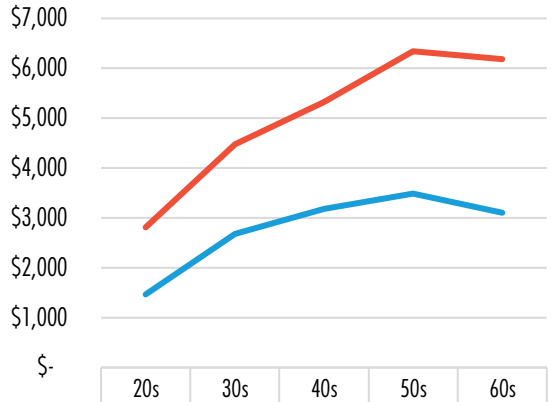
Note: Excludes participants who did not make a contribution in 2022 and those with a salary less than $10,000 or more than $500,000.

Contribution amounts and rates detailed in Figures 14 and 15 include any employer and employee contributions. Distinct to the public sector, the DC plans may have mandatory contributions, voluntary contributions, or both. In hybrid pension structures, a mandatory contribution from the employers and the employees is common, typically going into a 401(a) plan. Since employers often have mandatory contributions for a DB plan, matching employer contributions is far less common than in the private

sector. When matching contributions are offered, they are typically for either 401(k) or 457(b) plans.

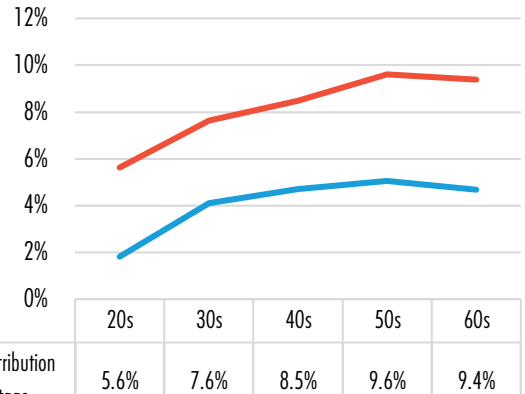
Similar to employee contributions, the average and median total contributions increased with age both in dollar amount and as a percentage of salary but showed a slight decrease among participants in their 60s. For instance, the median total contribution among participants in their 20s was $1,466, which increased to $3,487 for those in their 50s and decreased to $3,100 for those in their 60s.

Figure 14
Mean and Median Total Contributions, by Age



	20s	30s	40s	50s	60s
Mean Contribution	$2,811	$4,470	$5,321	$6,341	$6,182
Median Contribution	$1,466	$2,679	$3,179	$3,487	$3,100

Figure 15
Mean and Median Total Contribution Rate, by Age



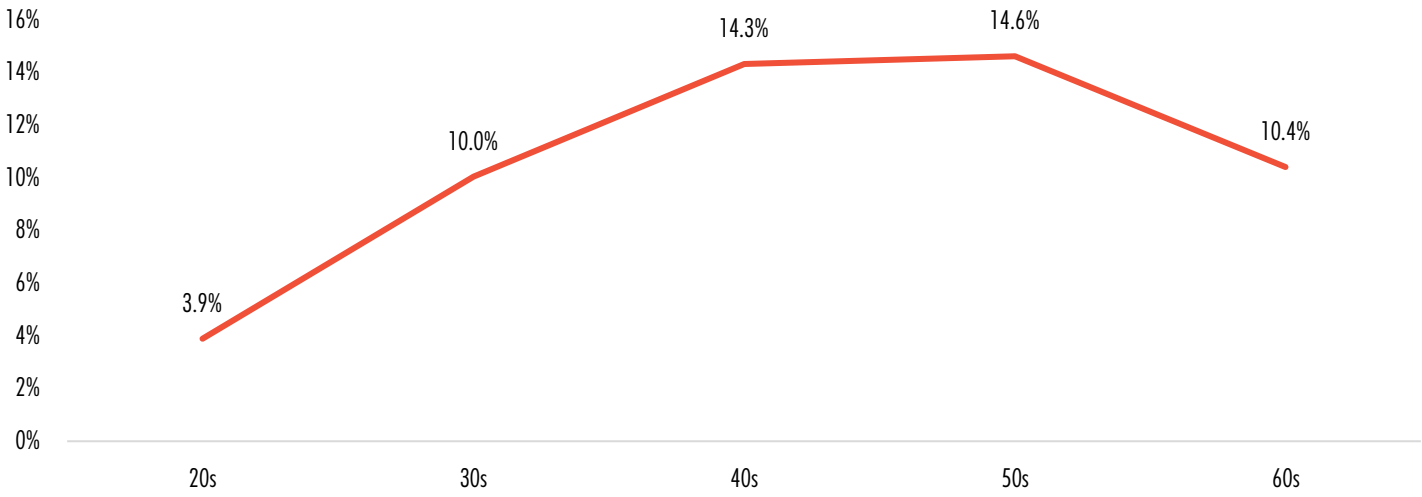
	20s	30s	40s	50s	60s
Mean Contribution Percentage	5.6%	7.6%	8.5%	9.6%	9.4%
Median Contribution Percentage	1.8%	4.1%	4.7%	5.1%	4.7%

LOAN USE

The use of loans in public-sector DC plans is shown in Figures 16–18.[6] Offering loans is optional for plan sponsors, and many are cautious about allowing their participants early access to their retirement funds. However, many also recognize that unusual circumstances arise and so offer loans as a source of emergency funds.

The percentage of participants who had an outstanding loan balance associated with any of their plans is shown in Figure 16, which reveals a peak of 14.6 percent for the 50s age cohort, decreasing thereafter.[7]

Figure 16
Percentage of Participants With a Loan Outstanding, by Age



The average amount of the outstanding loan balances is shown in Figure 17 and exhibits an increasing pattern until age 60. For instance, the average outstanding loan amount was $4,661 among participants in their 20s, which increased to $9,023 for those in their 50s and decreased to $8,838 for those in their 60s. The average loan amount as a percentage of account balance in Figure 18 was higher for younger participants (reflecting their lower average account balances).[8] Only 3.9 percent of the 20s age cohort had a loan, but for those who did, the balance equaled 21.8 percent of their DC assets across all accounts, on average. This pattern is consistent with the idea that participants may only choose to take out loans meeting a meaningful size threshold. If this size threshold does not vary much across age groups, the observed pattern in Figure 18 is what would be expected, again due to the lower average account balances among younger participants.

Figure 17
Mean Outstanding Loan Amount, by Age

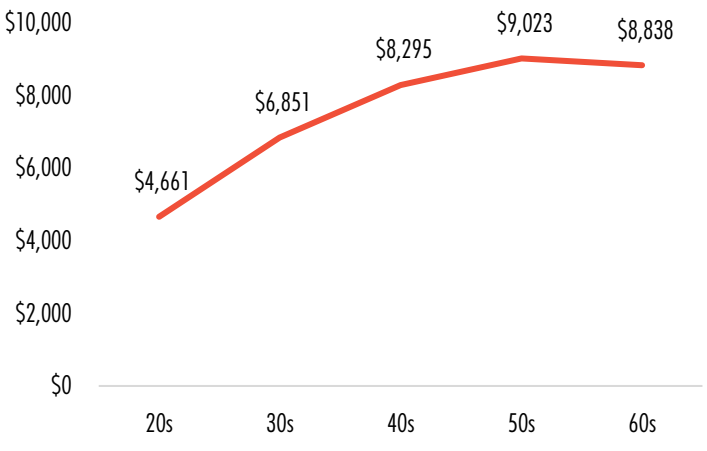
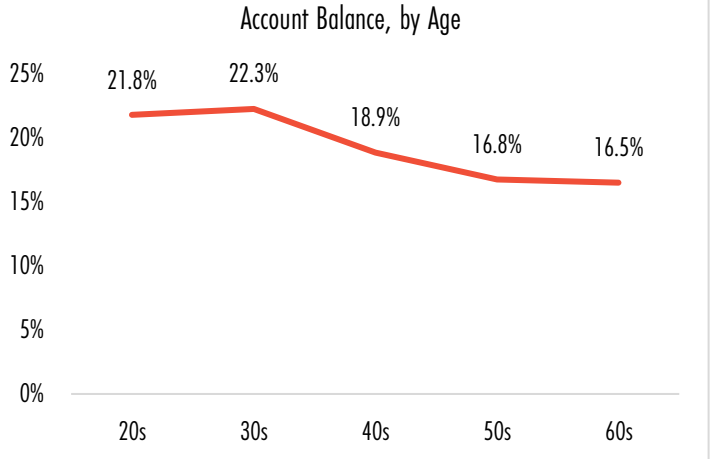


Figure 18
Mean Loan Amount as Percentage of Account Balance, by Age



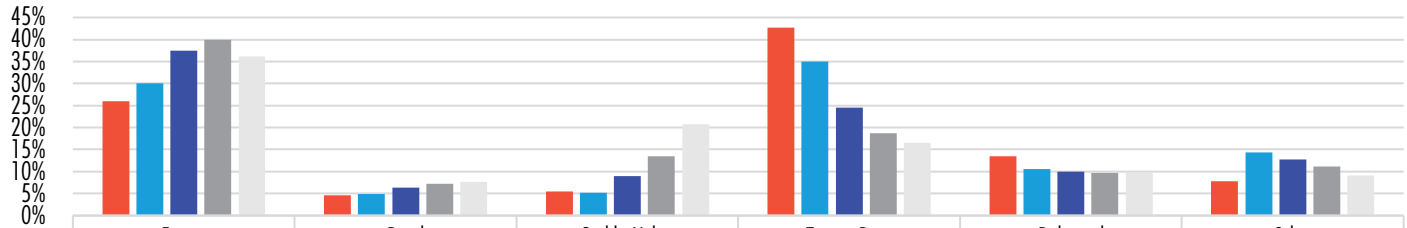
ASSET ALLOCATION

The PRRL Database categorizes each investment option into one of 27 separate categories. These granular categories include, for example, investment options focused on domestic, publicly traded small companies (i.e., "small caps") and other investment options such as real estate investment trusts (REITs) or funds invested strictly in inflation-protected treasury bonds issued by the federal government.[9] The categories are aggregated into six core asset classes: equity; bond; money market or stable-value funds; target-date funds; balanced funds (e.g., mutual funds with a fixed allocation to equities and bonds that does not change over time); and "other" investments, which refers to in-plan annuities, REITs, and investments that cannot be classified.

Figure 19 provides this aggregated view of public-sector DC data for those plans participating in the PRRL Database. Younger participants had a higher concentration of their assets allocated to target-date funds. For instance, 42.7 percent of total assets belonging to participants in their 20s were in target-date funds. That number fell to 16.5 percent among participants in their 60s.

Meanwhile, the trend reverses for assets allocated to bond funds and stable-value funds. For instance, only 5.5 percent of total assets belonging to participants in their 20s were allocated to stable-value funds, but the number increases to 20.7 percent among participants in their 60s. Assets allocation to equity funds increased with age but decreased among participants in their 60s.

Figure 19
Asset-Weighted Allocations, by Age

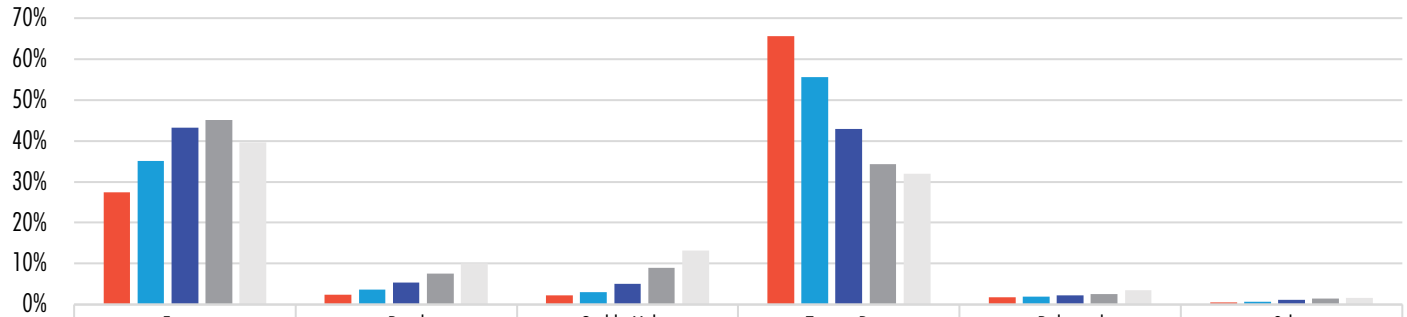


	Equity	Bond	Stable Value	Target Date	Balanced	Other
20s	26.0%	4.6%	5.5%	42.7%	13.5%	7.8%
30s	30.0%	4.8%	5.2%	35.0%	10.6%	14.4%
40s	37.5%	6.4%	9.0%	24.5%	10.0%	12.7%
50s	39.9%	7.2%	13.5%	18.7%	9.6%	11.1%
60s	36.2%	7.7%	20.7%	16.5%	9.9%	9.1%

Figure 19 also reveals allocations in line with behaviors demonstrated by private-sector plan participants shown in Figure 20. Equity assets increased until the 50s age cohort. The use of target-date funds was concentrated in younger cohorts, not because the products are not used by older employees but because younger cohorts have a higher concentration of new employees, and target-

date funds are the default investment for many plans.

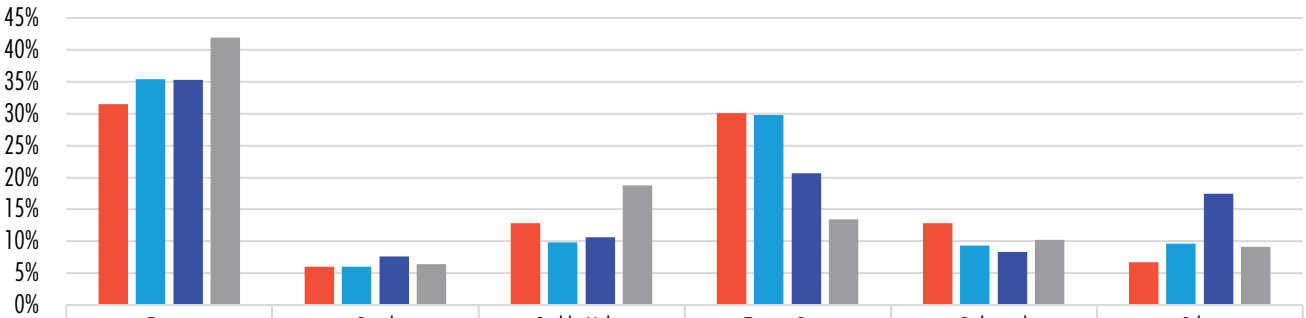
Figure 20
Asset-Weighted Allocations, by Age — Private 401(k) Plans



	Equity	Bond	Stable Value	Target Date	Balanced	Other
20s	27.5%	2.4%	2.2%	65.6%	1.7%	0.5%
30s	35.1%	3.6%	3.1%	55.6%	1.9%	0.7%
40s	43.2%	5.4%	5.1%	42.9%	2.3%	1.1%
50s	45.1%	7.6%	8.9%	34.3%	2.6%	1.4%
60s	39.6%	10.1%	13.2%	32.0%	3.5%	1.6%

The results in Figure 21, which are organized by tenure, provide similar insights. Participants with fewer years of tenure allocated a higher concentration of their assets into target-date funds, while participants with more years of tenure allocated more of their assets into stable-value, bond, and equity funds.

Figure 21
Asset-Weighted Allocations, by Tenure



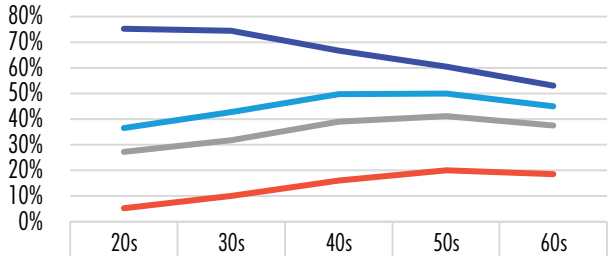
	Equity	Bond	Stable Value	Target Date	Balanced	Other
0–5 Years	31.5%	6.1%	12.8%	30.1%	12.8%	6.7%
6–10 Years	35.5%	6.0%	9.8%	29.8%	9.4%	9.6%
11–20 Years	35.3%	7.6%	10.6%	20.7%	8.3%	17.5%
20+ Years	42.0%	6.4%	18.8%	13.4%	10.3%	9.1%

ASSET ALLOCATION BY PLAN TYPE

The four major asset categories in the dataset (equities, bonds, money market/stable-value funds, and target-date funds) are broken out by plan type in Figures 22–26. Participants in 401(a) plans allocated significantly fewer assets to stocks and bonds than participants in other plan types and allocated more to balanced and target-date funds overall.

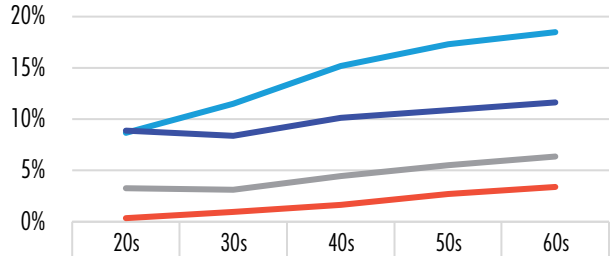
Similar to what can be observed in Figure 19, allocation to equity funds increased with age across all plan types except for 403(b), among which 75.3 percent was allocated to equity funds among participants in their 20s, decreasing to 53.1 percent among participants in their 60s. This could be due to the small amount of 403(b) plans presented in the data.

Figure 22
Asset-Weighted Allocations to Equity, by Age and Plan Type



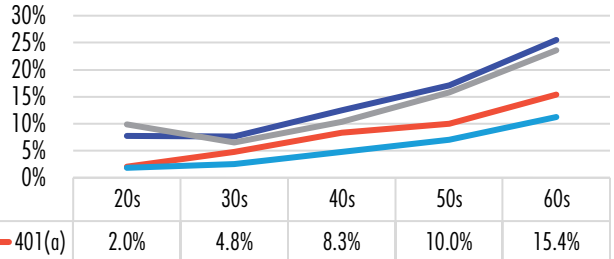
	20s	30s	40s	50s	60s
401(a)	5.3%	10.0%	16.0%	20.1%	18.5%
401(k)	36.6%	42.8%	49.7%	50.0%	45.0%
403(b)	75.3%	74.4%	66.7%	60.5%	53.1%
457(b)	27.2%	31.8%	39.1%	41.2%	37.4%

Figure 23
Asset-Weighted Allocations to Bonds, by Age and Plan Type



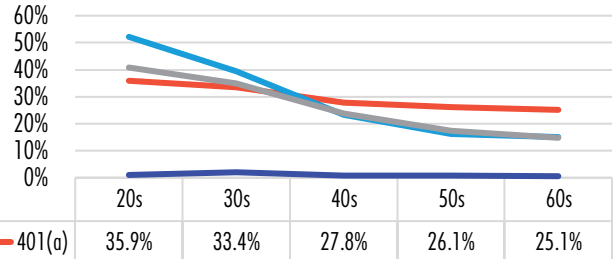
	20s	30s	40s	50s	60s
401(a)	0.4%	0.9%	1.6%	2.7%	3.4%
401(k)	8.7%	11.5%	15.2%	17.3%	18.5%
403(b)	8.9%	8.4%	10.1%	10.9%	11.6%
457(b)	3.2%	3.1%	4.4%	5.5%	6.4%

Figure 24
Asset-Weighted Allocations to Money and Stable Value, by Age and Plan Type



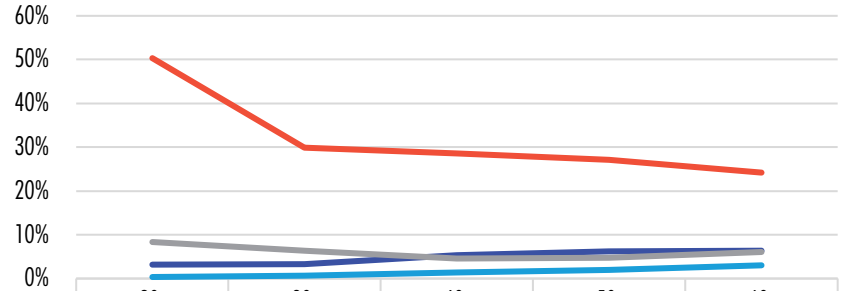
	20s	30s	40s	50s	60s
401(a)	2.0%	4.8%	8.3%	10.0%	15.4%
401(k)	1.8%	2.5%	4.8%	7.1%	11.2%
403(b)	7.7%	7.6%	12.5%	17.1%	25.5%
457(b)	9.8%	6.5%	10.4%	15.8%	23.6%

Figure 25
Asset-Weighted Allocations to Target-Date Funds, by Age and Plan Type



	20s	30s	40s	50s	60s
401(a)	35.9%	33.4%	27.8%	26.1%	25.1%
401(k)	52.2%	39.4%	23.2%	16.2%	15.1%
403(b)	1.0%	2.0%	0.8%	0.8%	0.6%
457(b)	40.8%	34.8%	23.9%	17.4%	14.8%

Figure 26
Asset-Weighted Allocations to Balanced Funds, by Age and Plan Type



	20s	30s	40s	50s	60s
401(a)	50.3%	29.9%	28.6%	27.2%	24.2%
401(k)	0.4%	0.6%	1.4%	2.0%	3.0%
403(b)	3.2%	3.3%	5.3%	6.2%	6.4%
457(b)	8.3%	6.4%	4.6%	4.8%	6.1%

CONCLUSION

This edition of the State of Public-Sector DC Plans provides a better understanding of what public-sector DC plan participants have in their current employer's plans, since account balances are aggregated across participants' multiple plans, as over one in three participate in more than one DC plan. The research also reveals that half of the participants in their 60s, the ages at which most typically retire, had a median account balance of less than $39,000 in their current plans as of year-end 2022. Loan usage peaked for those in their 50s at 14.6 percent with a loan outstanding, and their average outstanding balance was $9,023.

While public-sector workers are more likely to have a defined benefit pension plan relative to their private-sector peers, DB reform often involves reducing benefits to newly hired workers. As DC retirement plans play an increasingly larger role for individuals entering public-sector employment, understanding participant behavior in public-sector DC plans is critical to ensuring retirement security for participants.

ABOUT PRRL

The Public Retirement Research Lab is a retirement-industry-sponsored collaborative effort of the Employee Benefit Research Institute (EBRI) and the National Association of Government Defined Contribution Administrators (NAGDCA). The PRRL analyzes data from its Public Retirement Research Database, the first-ever database specific to public-sector defined contribution data, to produce unbiased, actionable research aimed at enhancing understanding of the design and utilization of public-sector defined contribution retirement plans to better inform public plan design, management, innovation, and legislation. To learn more, visit www.prrl.org.

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ENDNOTES

[1] The prior reports, "*The State of Public Sector DC Plans: A First Look at the PRRL Database*" and "*The State of Public Sector DC Plans: 2021,*" can be found at http://www.prrl.org/research.

[2] The combined percentage of participants by entity type exceeded 100 percent, as many individuals participated in multiple plans that belong to different entity types. For instance, an employee may participate in a primary plan offered by a state while also participating in a supplemental plan provided by their municipality.

[3] Figures 2A and 2B and other figures that break down statistics by plan type exclude a small number of plans and participants who have public-sector, employer-provided IRAs. The combined percentage of participants by plan type exceeds 100 percent, as many individuals participated in more than one plan type.

[4] In this study, tenure information is defined as both the number of years an employee has worked at their current job (tenure with an employer) and the number of years an employee has participated in the plan (tenure with the plan). If information on tenure with an employer was missing, tenure with the plan was used. Tenure information under either definition was only available for 68 percent of participants.

[5] Salary information was available for 41 percent of participants in this study. Accordingly, Figures 13 and 15 are limited to this subsample of participants.

[6] Loan information was available for 67 percent of participants in the database.

[7] The calculation for percentages of participants with outstanding loans by age excluded all participants who do not have access to plan loans.

[8] To clarify, the vertical axis of Figure 18 is defined as the outstanding loan balance (in dollars), divided by the total balance (in dollars) in the participant's account. Individuals without any outstanding loan balance were excluded from the calculation.

[9] The 27 investment option categories are as follows: (1) balanced; (2) balanced and sector/specialty; (3) broad international equity; (4) brokerage windows; (5) cash equivalents; (6) core fixed income; (7) international developed markets equity; (8) international emerging markets equity; (9) global equity; (10) global tactical asset allocation; (11) global/international fixed income; (12) inflation-linked bonds; (13) large-cap domestic equity; (14) mid-cap domestic equity; (15) real estate investment trusts (REITs); (16) risk-based funds; (17) sector/specialty equity; (18) sector specialty fixed income; (19) short-term fixed income; (20) small-cap domestic equity; (21) small/mid (SMID) cap domestic equity; (22) specialty/high-yield fixed income; (23) stable-value funds/fixed accounts; (24) customized target-date funds; (25) non-customized target-date funds; (26) in-plan annuities; and (27) other. The "other" category refers to investment options that do not specifically fit in any of the other 26 categories. Meanwhile, investment options that cannot be classified are categorized as "unknown".