ICI RESEARCH
PERSPECTIVE

SEPTEMBER 2023 // VOL. 29, NO. 7

How 401(k) Plan Participants Use Loans over Time: An Analysis of Loan Activity of Consistent 401(k) Plan Participants, 2016–2020

KEY FINDINGS

Each year, EBRI and ICI publish statistics on 401(k) plan participants' loan activity drawn from the annual EBRI/ICI 401(k) database cross sections, which provide a snapshot of loan usage at the year-end. Whereas 401(k) plan loans tend to be a multiyear process—with some individuals taking out loans in any given year and others paying them down or paying them off—meaningful analysis of a participant's lifecycle of 401(k) plan loan usage must examine loans for a sample of consistent participants over time. This report analyzes 401(k) plan loan usage for a sample of 2.2 million *consistent loan-eligible 401(k) plan participants*—participants who maintained accounts in each year between 2016 and 2020 and were in plans offering loans.

- **While the likelihood of having a plan loan in any given year is relatively low, more participants had loans at some point between year-end 2016 and year-end 2020.** Overall, 29 percent of 401(k) participants in the sample had an outstanding loan at some point in the five years analyzed, compared with 18 percent at year-end 2016.
- **Over the five years analyzed, the increase in loan usage was largest for younger participants or those with lower job tenure as they aged into longer tenure and higher account balances available for loans.** For example, among participants in their 20s at year-end 2016, 7 percent had outstanding loans at year-end 2016. However, when the five years analyzed are considered altogether, 21 percent of participants in their 20s had taken out plan loans.

Key findings continued »

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Suggested citation: Holden, Sarah, Steven Bass, and Craig Copeland. 2023. "How 401(k) Plan Participants Use Loans over Time: An Analysis of Loan Activity of Consistent 401(k) Plan Participants, 2016–2020." *ICI Research Perspective* 29, no. 7 (September). Available at www.ici.org/files/2023/per29-07.pdf.

"401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2020" reported year-end 2020 account balance, asset allocation, and loan activity results for the EBRI/ICI 401(k) database, which consists of a large cross section of 11.5 million 401(k) plan participants. This paper presents a longitudinal analysis of 401(k) participants who maintained accounts each year from 2016 through 2020 and were in 401(k) plans offering plan loans. This longitudinal analysis tracks the account balances of 2.2 million 401(k) plan participants who had accounts in the year-end 2016 EBRI/ICI 401(k) database and each subsequent year through year-end 2020, and who were in 401(k) plans offering plan loans to participants.

The entire series of research updates is available at www.ici.org/research/investors/ebri_ici.

For all figures in this report, components may not add to the totals presented because of rounding. Figures A1 through A12 are available at www.ici.org/files/2023/per29-07-data.xlsx.

Key findings continued »

- **New loans tended to be modest relative to account balances and decreased over time.** The median new loan balance at year-end 2017 for participants with loans who did not have a loan balance at year-end 2016 was 16 percent of the total account balance. By 2020, the average loan balance for those participants had fallen to 4 percent of the total account balance. The change in the loan share reflects both changes in loan amounts (through payments or new/additional loans) as well as changes in the total account balance (through loan interest payments, contributions, withdrawals, and asset appreciation/depreciation).
- **Among 401(k) plan participants with loans, those with larger account balances tended to take smaller loans as a share of their total account balance.** At year-end 2017, 64 percent of participants with new loans and total account balances greater than $100,000 took out 10 percent or less of their account balance as a loan compared with 16 percent of those with balances of $10,000 or less. Similarly, those with smaller accounts tended to be more likely to take a larger share: 57 percent of those with new loans and balances of $10,000 or less at year-end 2017 took out more than 20 percent of their balance, compared with 14 percent of those with balances of $100,000 or more.
- **Participants who were observed taking multiple loans between year-end 2017 and year-end 2020 tended to take smaller loans.** Among participants with new loans at year-end 2017 who were observed taking an additional loan between year-end 2018 and year-end 2020, about three-fifths had an initial loan of $2,500 or less. Among participants with new loans at year-end 2017 who were not observed taking an additional loan, one-fifth had an initial loan of $2,500 or less.

Background

In the US retirement system, 401(k) plans are one component of the voluntary retirement plan offerings designed to complement Social Security. Rising to be the most popular employer-sponsored defined contribution (DC) retirement plan, 401(k) plans have close to $7 trillion in assets,[1] and employers typically design their 401(k) plans to include a range of investment options, employer contributions to promote participant saving, and flexibility of access often through plan loans.[2] In a voluntary retirement savings framework, policymakers have recognized that allowing limited access to retirement accumulations—such as through plan loans—promotes retirement saving.[3]

This report analyzes 401(k) plan loan usage for a sample of 2.2 million consistent loan-eligible 401(k) plan participants—participants who maintained accounts in each year between 2016 and 2020 and were in plans offering loans. This consistent sample is drawn from the ongoing collaborative effort, the Employee Benefit Research Institute (EBRI)[4] and the Investment Company Institute (ICI)[5] 401(k) plan database.

Prior EBRI/ICI 401(k) plan database research has found that 401(k) plan loans are widely available but typically about one in five participants have an outstanding loan in any one year.[6] Snapshots of 401(k) plan participants' loan activity find that plan loan usage has been declining in recent years (Figure 1). Among plans allowing loans, total 401(k) loan balances also have fallen over time, from a little over 2 percent of assets in 2000 to a little over 1 percent in 2020.

Two recent significant policy changes likely have influenced 401(k) plan participants' loan activity. Prior to the Bipartisan Budget Act of 2018, 401(k) plan participants were required to take any available loan from the plan before requesting a hardship withdrawal.[7] The Bipartisan Budget Act of 2018 expanded hardship withdrawal availability in several ways, including dropping the requirement that a participant first take advantage of a plan loan before taking a hardship withdrawal.[8]

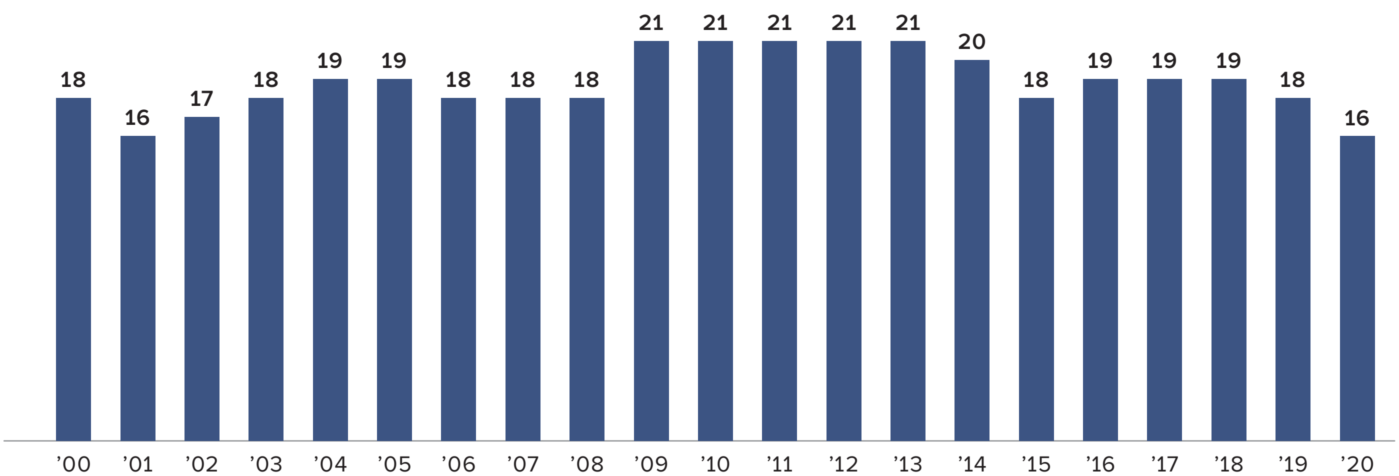
With the onset of financial stresses relating to the COVID-19 pandemic, policymakers acted to provide penalty relief and expanded access to retirement accounts under the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), enacted on March 27, 2020. For individuals affected by COVID-19, the CARES Act temporarily eliminated the 10 percent penalty on early withdrawals from retirement accounts; the act also contained optional provisions increasing repayment flexibility and expanding access to DC plan account balances for in-service withdrawals—through coronavirus-related distributions (CRDs)[9]—and loans.[10]

401(k) plan participants' loan activity edged down further in 2020, perhaps partly reflecting the use of CRDs instead of loans. At year-end 2020, 16 percent of loan-eligible 401(k) plan participants had loans outstanding, compared with 18 percent at year-end 2019 (Figure 1). CRDs, like loans, can be repaid into a retirement account; however, unlike loans, they may have current tax implications.[11]

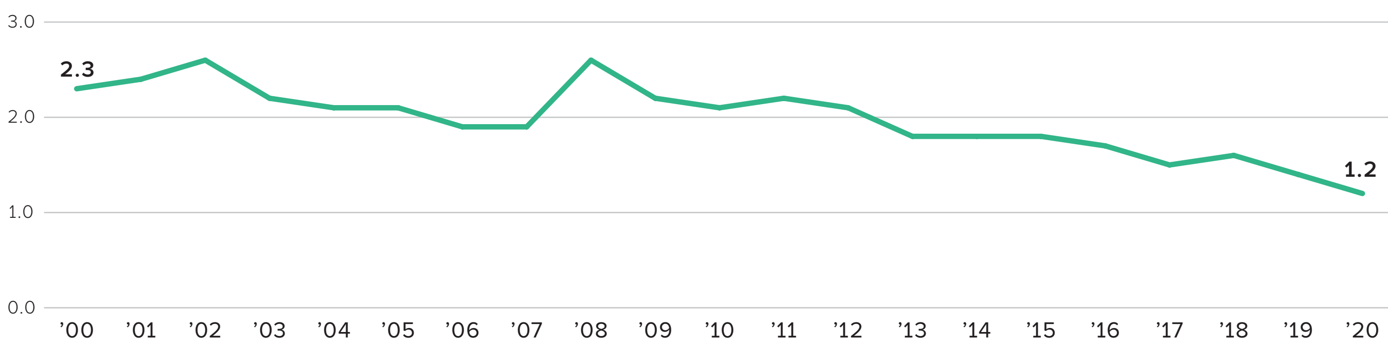
FIGURE 1

Snap Shots of 401(k) Plan Loan Activity Show Loan Usage Has Been Declining

Percentage of loan-eligible 401(k) plan participants with outstanding loans, year-end



Aggregate 401(k) participant loan amounts as a percentage of total 401(k) plan assets in plans allowing loans, plan-year



Note: Loan-eligible 401(k) plan participants are those in 401(k) plans allowing plan loans.

Sources: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project and Department of Labor Form 5500 research files

These snapshots reveal broad trends in 401(k) plan loan activity, but they do not provide insight into the lifecycle of loan activity for a given 401(k) plan participant. This report serves to explore 401(k) plan participants' management of their 401(k) plan loans, including exploring the magnitude of the loans, the paydown and payoff process, and whether they engage in multiple or repeat loan activity.

Observed Loan Activity

The EBRI/ICI 401(k) database documents loans outstanding at year-end. It is not possible to track intra-year loan activity. In this analysis, participants are observed and categorized as follows:

- ***Loan eligible*** – any participant in a plan that has been identified as having at least one participant with a loan outstanding.
- ***Outstanding loan*** – a participant with a positive loan balance at year-end.
- ***New loan*** – a participant with an outstanding loan balance at the current year-end but not at the prior year-end. The year in which the new loan is observed, is considered the *loan initiation*.
- ***Multiple loans*** – a participant who paid off and initiated subsequent new loans or was observed to have an increasing loan balance, indicating additional borrowing.
- ***Loan paydown*** – a participant with an outstanding loan balance at the current year-end that is lower than their outstanding loan balance at the prior year-end. It is possible that participants may have paid down the prior loan and taken out a new lower loan within the year, but it is not possible to distinguish between this activity and ongoing paydown of an existing loan.
- ***Loan payoff*** – a participant with no loan balance at the current year-end but a positive outstanding loan balance at the prior year-end.
- ***Initial loan balance*** – the outstanding balance of a new loan. It is possible that this is not the actual initial loan balance, as an individual may have initiated the loan during the year and started to pay down the loan. It is the first observation of the new outstanding loan, at year-end.
- ***Loan balance*** – the dollar amount of the outstanding loan at year-end. The relative magnitude of the loan outstanding is calculated as the loan balance as a share of the total account balance.
- ***Total account balance*** – the sum of the current year-end 401(k) plan account balance and the current year-end loan balance.

Loan Usage Among Consistent Loan-Eligible 401(k) Participants, 2016–2020

Because loans tend to be paid down over multiple years, a snapshot of loan usage at year end does not provide a complete picture of the lifecycle of 401(k) plan participants' loan activity. In any given year, some individuals are paying down loans, others are paying them off entirely, and others are taking out new loans. This paper analyzes an extended time period to better understand how consistent 401(k) participants are managing their 401(k) plan loans over time.

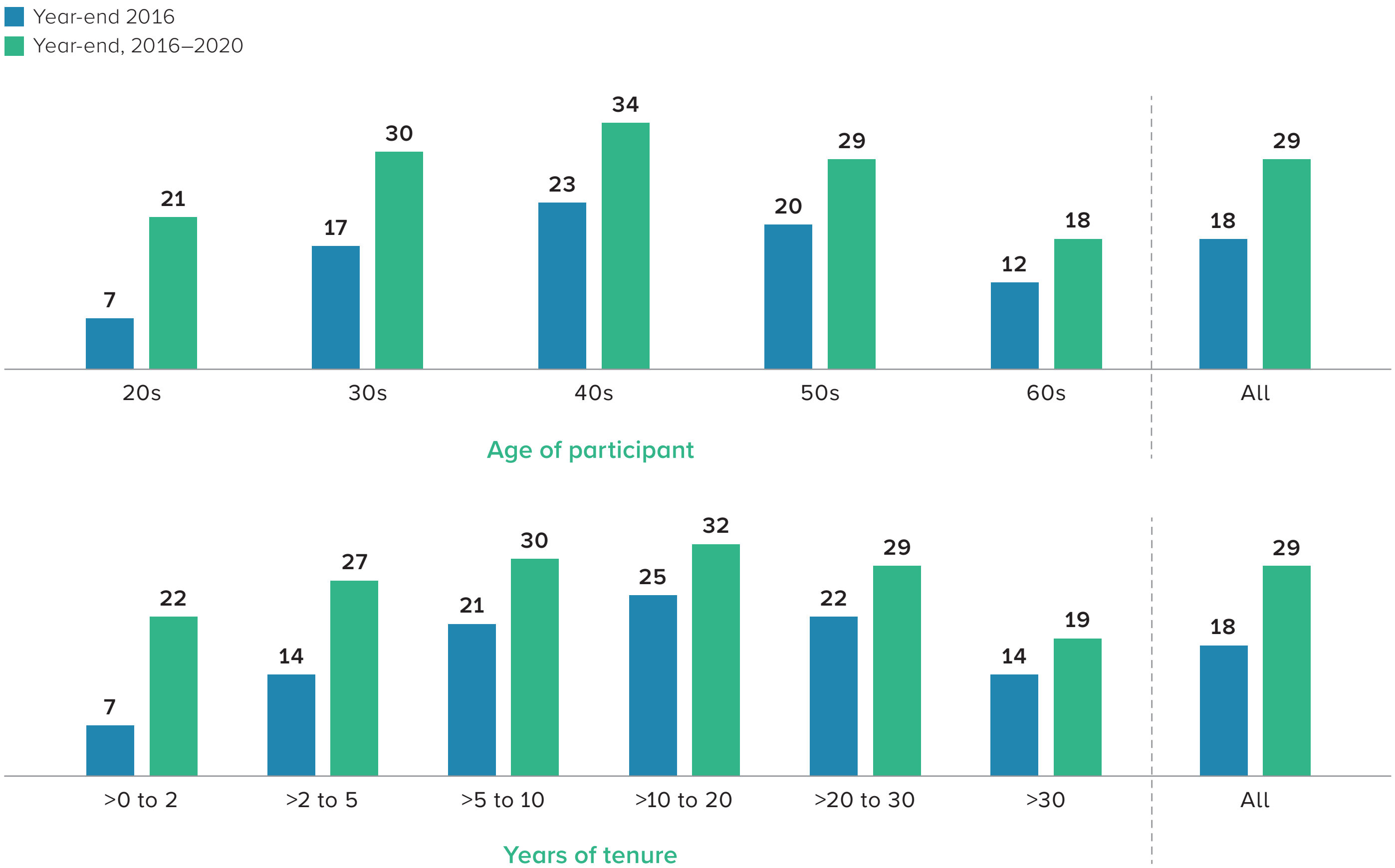
While the likelihood of having a plan loan in any given year is relatively low, the 401(k) participants with loans change from year to year. Thus, more participants had a loan at some point during the five years analyzed (29 percent) than for any given year (for example, 18 percent at year-end 2016) (Figure 2).

As with single-year loan incidence, cumulative loan incidence is highest for middle-aged participants, rising from 21 percent of participants in their 20s at year-end 2016 to 34 percent of participants in their 40s, before falling to 18 percent for participants in their 60s (Figure 2). A similar pattern is observed by tenure, with mid-tenure workers having the highest observed rates of cumulative loan incidence.[12] Loan activity also tends to rise with 401(k) participant account balance peaking among 401(k) participants with account balances between $25,000 and $50,000 before tapering off among 401(k) participants with higher balances.[13] Nevertheless, loan activity was not observed for a clear majority of the sample of consistent loan-eligible 401(k) participants (71 percent) at any point during the five years analyzed.[14] Even for participants in their 40s, about two-thirds were not observed with a loan balance between year-end 2016 and year-end 2020.

FIGURE 2

401(k) Plan Participant Loan Usage During the Sample

Percentage of consistent loan-eligible 401(k) plan participants by age or tenure,* year-end



* Age and tenure groups are based on participant age and tenure at year-end 2016. The tenure variable is generally years working at current employer and thus may overstate years of participation in the 401(k) plan.

Note: The consistent loan-eligible sample is 2.2 million 401(k) plan participants with account balances at the end of each year from 2016 through 2020 who were in 401(k) plans allowing plan loans. The figure reports the percentage of participants in the sample who were observed with a loan at year-end 2016 and for at least one year in the sample period.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

A majority of consistent loan-eligible 401(k) participants who had a loan at some point between year-end 2016 and year-end 2020 were observed taking at least one additional loan during that time period.[15] Overall, 55 percent of the sample who took at least one loan took multiple loans (Figure 3). Nevertheless, the repeat-loan 401(k) plan participants represented only 16 percent of the overall sample (55 percent of 29 percent with any loans over the five years). Participants in their 40s were both the most likely to take any loan (Figure 2) and the most likely to have multiple loans (Figure 3). Among those in their 40s who took at least one loan, 59 percent took multiple loans, compared with 49 percent of those in their 20s and 41 percent of those in their 60s (Figure 3).

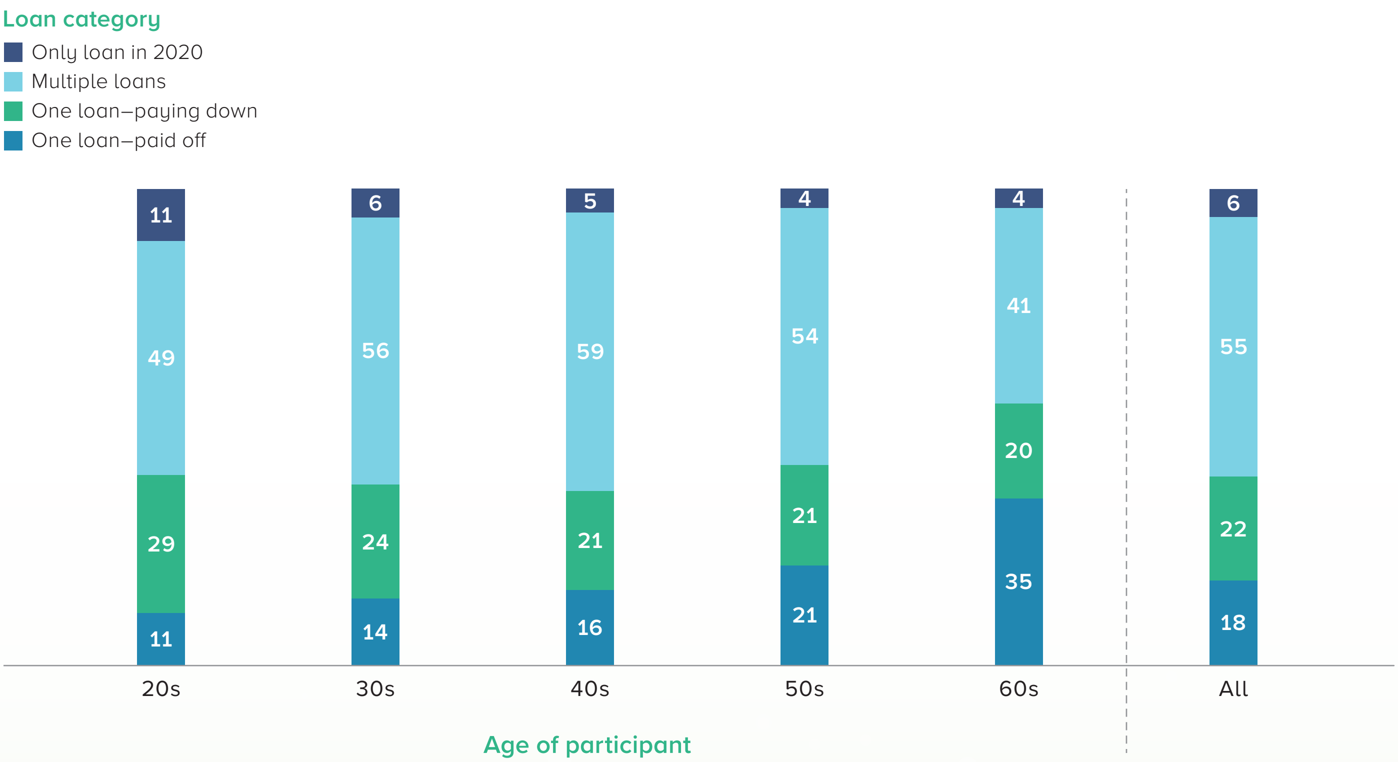
Older 401(k) participants who had loans were more likely to have taken one loan and fully paid it off during the five years analyzed. Indeed, 35 percent of consistent loan-eligible 401(k) participants in their 60s with loans had taken one loan prior to 2020 and completely paid it off during the sample period, compared with 11 percent of those in their 20s (Figure 3). A similar pattern is observed by 401(k) plan participant tenure and 401(k) account balance (see Figures A2 and A3).

With changing rules that expanded access to 401(k) plan loans (and withdrawals) as COVID-19 hit the United States,[16] 401(k) participants initiating loans only in 2020 are identified separately and display a different pattern of loan activity.[17] Indeed, 401(k) participants with loans in their 20s were the most likely to have taken their only loan in 2020 as they had aged into longer tenure and higher account balances: 11 percent of consistent loan-eligible 401(k) plan participants with loans in their 20s initiated their only loan in 2020, compared with 4 percent of those in their 60s (Figure 3). A similar pattern is observed by 401(k) plan participant tenure and 401(k) account balance (see Figures A2 and A3).

FIGURE 3

401(k) Participant Loan Usage Varies by Age

Percentage of consistent loan-eligible 401(k) plan participants with loans by age*



* Age groups are based on participant age at year-end 2016.

Note: The consistent loan-eligible sample is 2.2 million 401(k) plan participants with account balances at the end of each year from 2016 through 2020 who were in 401(k) plans allowing plan loans. For a description of the loan categories, see the call out box on page 5.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

New Loans Among Consistent Loan-Eligible 401(k) Participants, 2017–2020

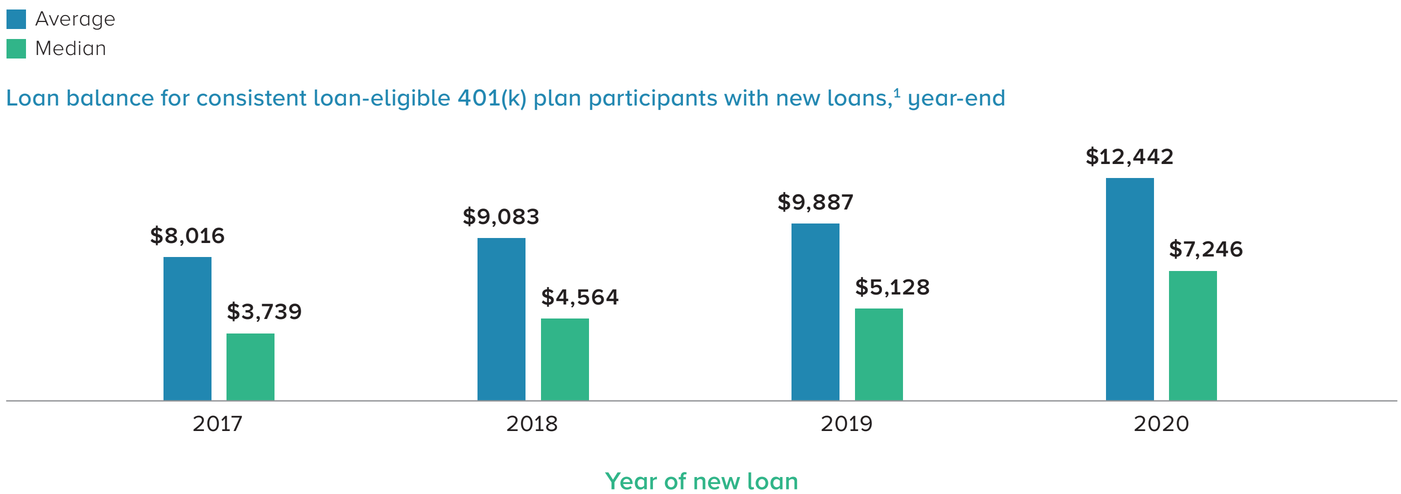
Because a cross-sectional analysis looks at a snapshot of all loans, it includes new loans, additional loans, and loans that are being paid down. By using a longitudinal sample of participants, it is possible to analyze loans in the year they are initiated. This section focuses on new loans—that is, positive loan balances at year-end where the participant did not have a loan balance at the prior year-end—with a special focus on new loans in 2017.

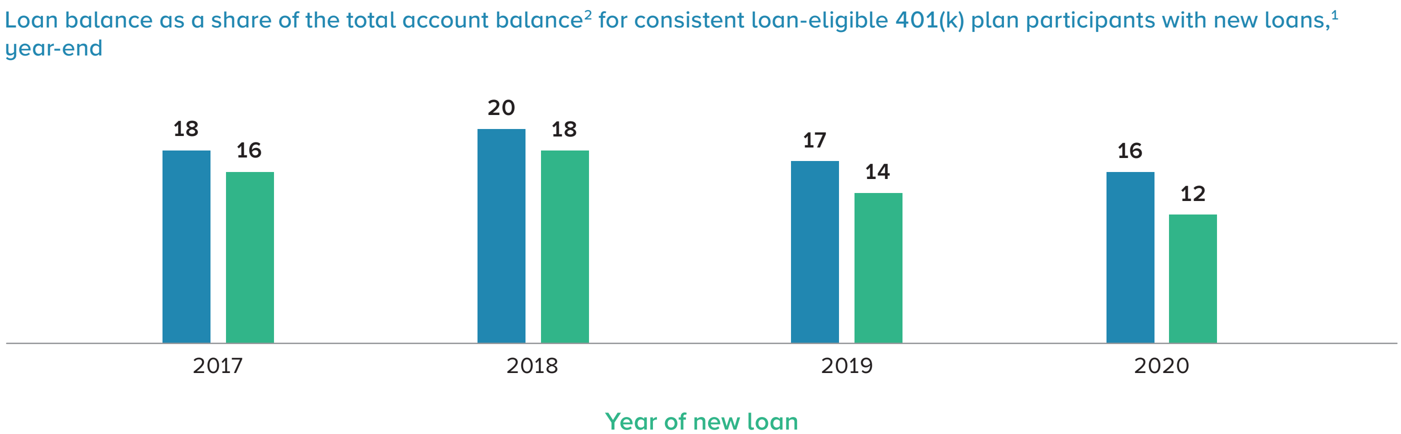
Initial Loan Amounts

New 401(k) plan loan balances tended to rise over the time period analyzed, though typically falling as a percentage of the total account balance.[18] At year-end 2017, the average balance for loans initiated in 2017 was about $8,000, representing 18 percent of the total 401(k) account balance, and the median amount was about $3,700, representing 16 percent of the total 401(k) account balance (Figure 4).[19] While the dollar amounts rose each year for loans initiated in 2018, 2019, and 2020, the share they represented of the total 401(k) account balance rose in 2018 before falling in 2019 and 2020. At year-end 2017, for loans initiated in 2017, the median ratio of the outstanding loan balance to the total account balance was 16 percent, compared with 12 percent for loans initiated in 2020.

FIGURE 4

401(k) Plan Initial Loan Balances





[1] New loans are observed for individuals with a positive year-end loan balance in a given year and no loan balance at the prior year-end.

[2] Total account balances are participant account balances held in 401(k) plans at the participants' current employers and include plan loans. Retirement savings held in plans at previous employers or rolled over into IRAs are not included.

Note: The consistent loan-eligible sample is 2.2 million 401(k) plan participants with account balances at the end of each year from 2016 through 2020 who were in 401(k) plans allowing plan loans.

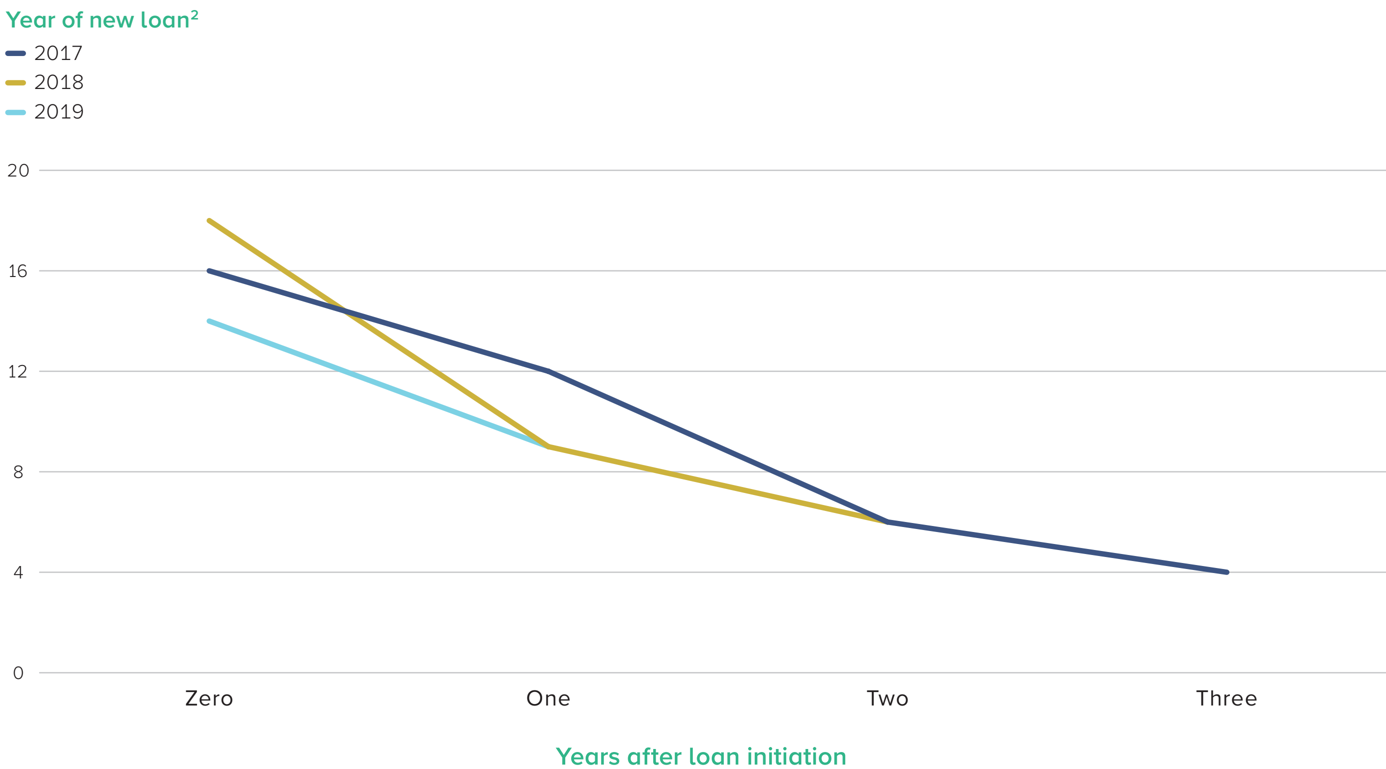
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Loan amounts tend to decline relative to the total account balance in the years after the initial loan was taken. As discussed above, the median ratio of loan balance to total account balance at year-end 2017 for new loans initiated in 2017 was 16 percent (Figures 4 and 5). One year later (at year-end 2018), this had declined to 12 percent (Figure 5). This figure continued to decline, to 6 percent at year-end 2019 and 4 percent at year-end 2020. Loans initiated in 2018 and 2019 followed a similar pattern through year-end 2020.

FIGURE 5

Loan Balances as a Share of the Account Balance After Loan Initiation

Median loan balance as a share of the total account balance[1] for consistent loan-eligible 401(k) plan participants with new loans,[2] year-end



[1] Total account balances are participant account balances held in 401(k) plans at the participants' current employers and include plan loans. Retirement savings held in plans at previous employers or rolled over into IRAs are not included.

[2] New loans are observed for individuals with a positive year-end loan balance in a given year and no loan balance at the prior year-end.

Note: The consistent loan-eligible sample is 2.2 million 401(k) plan participants with account balances at the end of each year from 2016 through 2020 who were in 401(k) plans allowing plan loans. Medians in years one through three include both individuals who paid off their loans and individuals who took out new or additional loans.

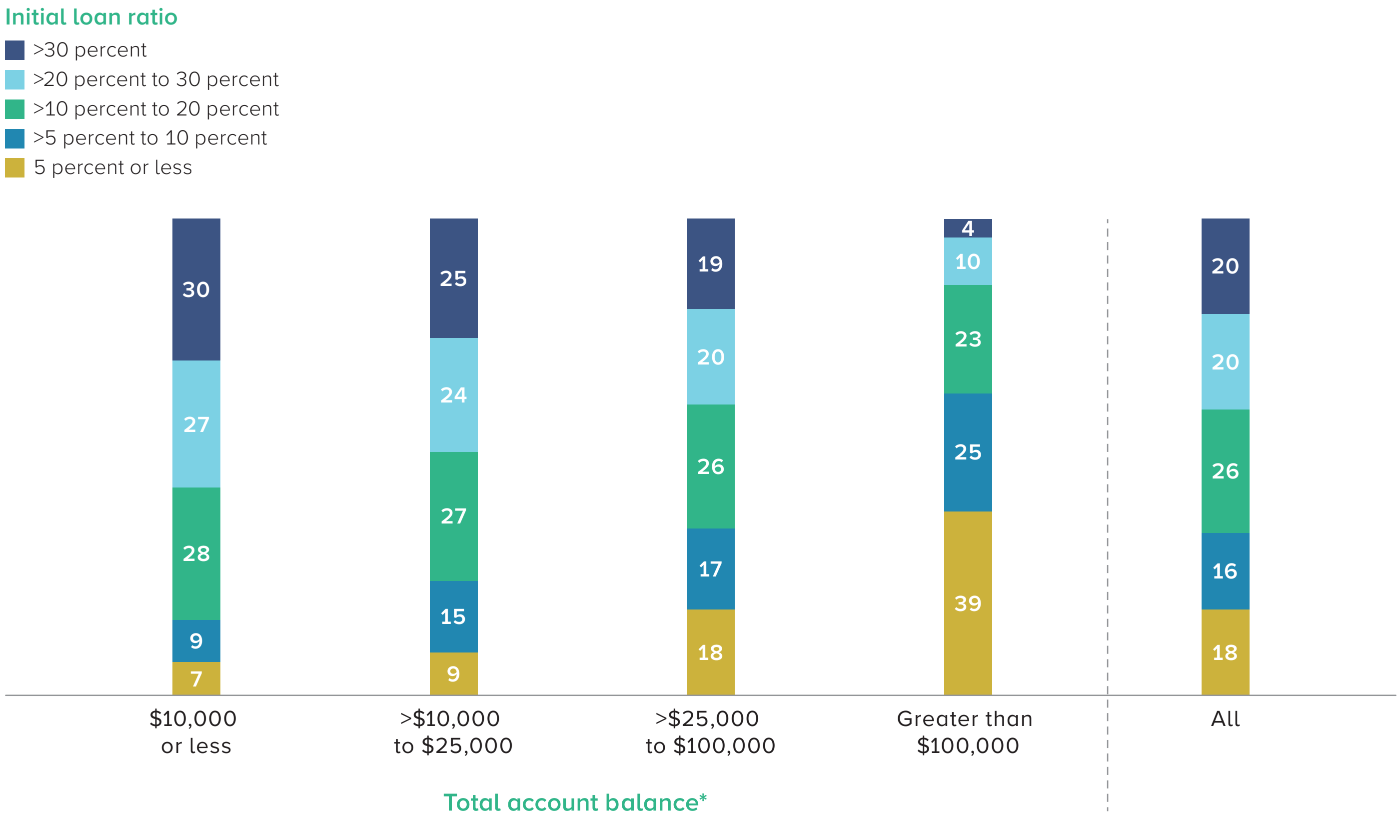
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Although many new loans tended to be small relative to the total account balance, some participants took out a more substantial share. Overall, 20 percent of new loans in 2017 accounted for more than 30 percent of the total account balance at year-end 2017 (Figure 6). However, these large loan ratios tended to come from smaller accounts. At year-end 2017, 30 percent of new loans from 401(k) plan accounts with total balances of $10,000 or less were more than 30 percent of the total balance. This figure fell to only 4 percent of new loans from accounts with total balances greater than $100,000. Conversely, consistent loan-eligible 401(k) participants with larger balances who took new loans in 2017 were more likely to take a small share of the total balance. Nearly 40 percent of new 2017 loans were 5 percent or less of the total 401(k) account balance at year-end 2017 for accounts with more than $100,000, compared with 7 percent for accounts with $10,000 or less.

FIGURE 6

Initial Loan Ratios by Account Balance

Distribution of ratio of initial loan balance to total account balance by total account balance,* year-end 2017



* Total account balances are participant account balances held in 401(k) plans at the participants' current employers and include plan loans. Retirement savings held in plans at previous employers or rolled over into IRAs are not included.

Note: The sample is consistent loan-eligible 401(k) plan participants who took a new loan in 2017. New loans are observed for individuals with a postive year-end 2017 loan balance and no year-end 2016 loan balance. The initial loan ratio and total 401(k) account balance are observed at year-end 2017.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Number of Loans

For consistent loan-eligible 401(k) plan participants who took a new loan in 2017, they could have taken another new loan (having paid off the initial loan from 2017) or additional loans in subsequent years (which we refer to as *multiple loans*). Also, they could have either paid the loan off during the sample period without taking a new or additional loan, or they could have paid the loan down each year without paying it off (which we refer to as a *single loan*). Overall, among consistent loan-eligible 401(k) participants who took a new loan in 2017, 50 percent took multiple loans (that is, took another loan at some point between 2018 and 2020) and 50 percent took a single loan (that is, did not take an additional loan after 2017).

Individuals who took multiple 401(k) plan loans tended to take smaller initial loans. More than half (58 percent) of consistent loan-eligible 401(k) participants with new loans in 2017 who took multiple loans had an initial year-end 2017 loan balance of $2,500 or less (Figure 7). Among participants who took a single loan, 20 percent took an initial loan amount of $2,500 or less. Conversely, individuals who took a single loan over the period analyzed were more likely to have larger initial year-end 2017 loan amounts. Among 401(k) participants with new 2017 loans who only took a single loan, 40 percent had an initial year-end 2017 balance of $10,000 or more, compared with 11 percent of participants with multiple loans. Overall, 40 percent of participants with new 2017 loans had an initial year-end balance of $2,500 or less and 26 percent had an initial year-end balance of $10,000 or more.

FIGURE 7

Initial Loan Amounts by Single or Multiple Loans

Initial loan amount by loan category, year-end 2017

Note: The sample is consistent loan-eligible 401(k) plan participants who took a new loan in 2017. New loans are observed for individuals with a postive year-end 2017 loan balance and no year-end 2016 loan balance. The initial loan amount is observed at year-end 2017.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

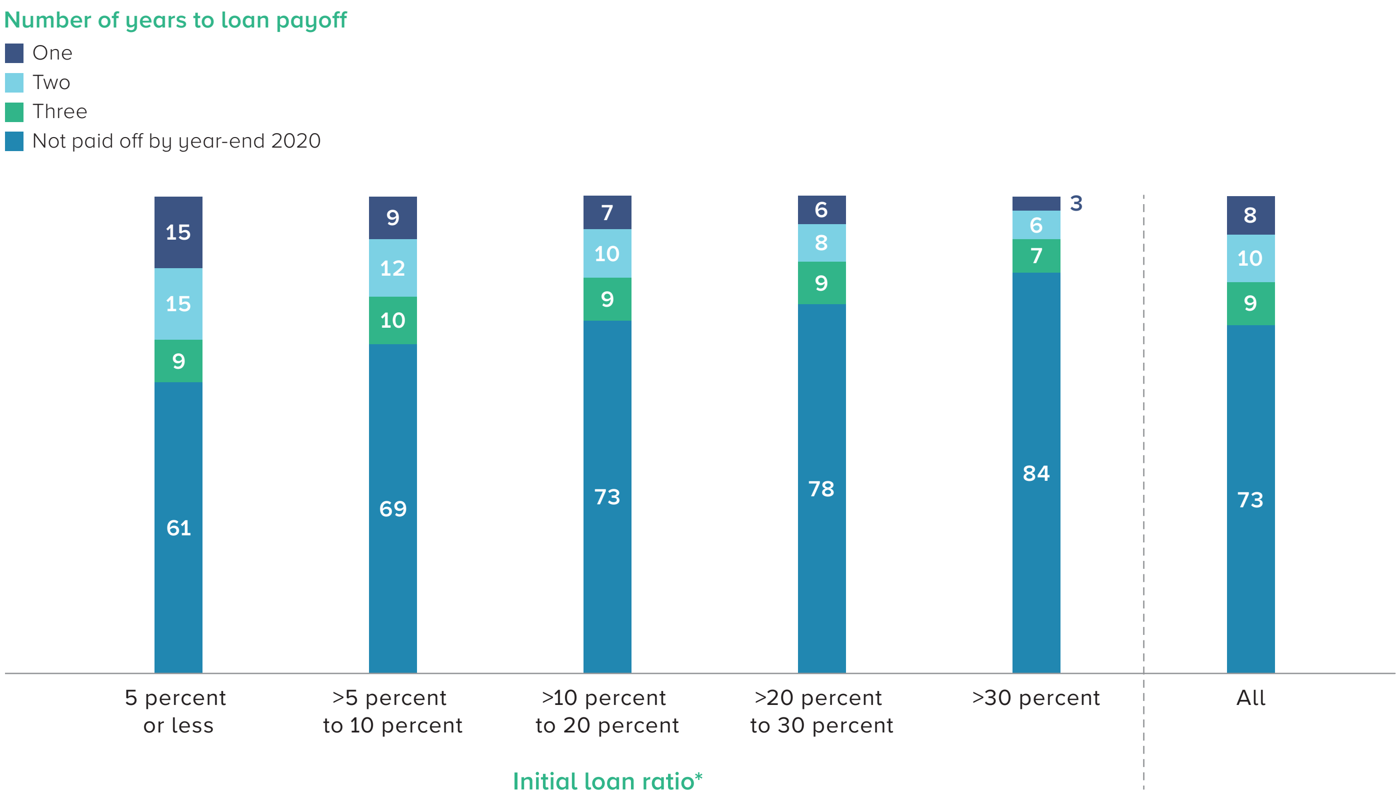
Loan Payoff

Participant loans from 401(k) plans generally must be paid back within five years, and smaller loans tended to be paid back more quickly. For loans initiated in 2017, the latest payoff date would generally be in 2022.[20] Since our sample ends at year-end 2020, we do not observe loan payoffs for most new 2017 loans. Indeed, only 27 percent of new 2017 loans were paid off by year-end 2020 (Figure 8). However, participants who took out a smaller share of their total account balance were more likely to pay off the loan by year-end 2020. By year-end 2020, 39 percent of participants with new 2017 loans that accounted for 5 percent or less of their total account balance had fully repaid their loans, compared with 16 percent of participants with new 2017 loans that were greater than 30 percent of their total 401(k) account balance.

FIGURE 8

401(k) Loan Payoff During Sample Period

Number of years to loan payoff among new loans at year-end 2017 by initial loan ratio*



* The initial loan ratio is the ratio of the loan amount to the total account balance at year-end 2017. Total account balances are participant account balances held in 401(k) plans at the participants' current employers and include plan loans. Retirement savings held in plans at previous employers or rolled over into IRAs are not included.

Note: The sample is consistent loan-eligible 401(k) plan participants who took a new loan in 2017. New loans are observed for individuals with a postive year-end 2017 loan balance and no year-end 2016 loan balance. The initial loan ratio is observed at year-end 2017.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project

Appendix: About the EBRI/ICI 401(k) Database and Consistent Loan-Eligible 401(k) Plan Participants

EBRI/ICI 401(k) Database

The EBRI/ICI 401(k) database, which is constructed from the administrative records of 401(k) plans, represents a large cross section, or snapshot, of 401(k) plans at the end of each year. It is a cross section of the entire population of 401(k) plan participants, and it represents a wide range of participants—including those who are young and individuals who are new to their jobs, as well as older participants and those who have been with their current employers for many years.

Although annual updates of the EBRI/ICI 401(k) database provide valuable perspectives of 401(k) plan account balances, asset allocation, and loan activity across wide cross sections of participants, cross-sectional analyses are not well suited to examining the impact of consistent participation in 401(k) plans. Cross sections change in composition from year to year because the selection of data providers and sample of plans using a given provider vary, and because 401(k) participants join or leave plans. In addition, the analysis can only cover a snapshot of an individual's 401(k) plan account at a point in time. Since loans tend to be a multiyear process—with an initial loan amount generally paid down over the course of multiple years—and since different individuals may take out loans in any given year, it is important to follow a consistent group of participants to understand 401(k) plan loan usage. This paper provides an analysis of loan usage among 2.2 million consistent loan-eligible 401(k) participants in the EBRI/ICI 401(k) database over the four-year period from year-end 2016 through year-end 2020.

Sample of Consistent Loan-Eligible 401(k) Participants, 2016–2020

This paper extends previous work examining consistent participants in the EBRI/ICI 401(k) database between 2016 and 2020,[21] by exploring loan usage among the loan-eligible portion of that consistent sample. Among the consistent 401(k) participants with accounts at the end of each year between 2016 and 2020 in the EBRI/ICI 401(k) database, 2.2 million were in plans eligible for loans, and thus in the sample of consistent loan-eligible 401(k) plan participants.

Age and Tenure Increase for Consistent Sample

The group of consistent loan-eligible 401(k) plan participants was demographically similar both to the entire EBRI/ICI 401(k) database and the consistent sample at year-end 2016, with a median age of 45 for the full database, 46 for the consistent sample, and 45 for the consistent loan-eligible sample (see Figure A6). Similarly, the three samples had similar median tenure at year-end 2016: seven years for the full database and eight years for both the consistent and consistent loan-eligible samples (see Figure A7). However, by year-end 2020, participants in both of the consistent samples had aged by four years and increased their tenure by four years, while the median age and tenure of the full database was unchanged between year-end 2016 and year-end 2020.

401(k) Plan Account Balances Increase for Consistent Sample

The sample of consistent loan-eligible 401(k) plan participants started the analysis with slightly higher 401(k) plan account balances at year-end 2016 than the full database sample and ended the analysis with significantly higher account balances at year-end 2020 (see Figure A8). The higher average account balances among consistent loan-eligible 401(k) participants comport with prior research finding the availability of plans loans is correlated with higher contribution rates.[22]

401(k) Plan Loan Activity Varies with Participant Age, Tenure, and 401(k) Plan Account Balance

The percentage of loan-eligible 401(k) participants with loans at year-end 2016 was similar between the entire EBRI/ICI 401(k) database and the consistent loan-eligible sample and showed the same pattern of loan activity by participant age, tenure, and 401(k) plan account balance (see Figure A9). Overall, 19 percent of loan-eligible 401(k) participants had outstanding loans at year-end 2016 compared with 18 percent of participants in the consistent loan-eligible sample. In both samples, 401(k) plan loan activity had a hill-shaped pattern, with the highest percentages of loan-eligible 401(k) participants with outstanding loans among participants in their 40s, or participants with more than 10 to 20 years of tenure, or participants with 401(k) plan account balances of more than $25,000 to $50,000 (see Figures A9 to A12).

Notes

[1] See Investment Company Institute 2023.

[2] BrightScope and Investment Company Institute 2022 reports the number and range of investment options offered in large 401(k) plans, the role of employer contributions (including the structure of employer matching contributions), and the availability of plan loans. Holden, Bass, and Copeland 2022 reports on the availability and use of 401(k) plan loans, as well as 401(k) plan participants' asset allocations by participant age. Li and Smith 2008 explores the costs and benefits of 401(k) loans compared with other household borrowing.

[3] Holden and VanDerhei 2001; Munnell, Sundén, and Taylor 2000; and US General Accounting Office 1997 find that the presence of a loan provision increases 401(k) participant contribution rates.

[4] The Employee Benefit Research Institute (EBRI) is a nonprofit, nonpartisan, public policy research organization that does not lobby or take positions on legislative proposals.

[5] The Investment Company Institute (ICI) is the leading association representing regulated investment funds. ICI's mission is to strengthen the foundation of the asset management industry for the ultimate benefit of the long-term individual investor. ICI's members include mutual funds, exchange-traded funds (ETFs), closed-end funds, and unit investment trusts (UITs) in the United States, and UCITS and similar funds offered to investors in other jurisdictions. ICI also represents its members in their capacity as investment advisers to certain collective Investment trusts (CITs) and retail separately managed accounts (SMAs). ICI has offices in Washington DC, Brussels, London, and Hong Kong and carries out its international work through ICI Global.

[6] For example, see Holden, Bass, and Copeland 2022.

[7] A participant seeking a hardship withdrawal must demonstrate financial hardship and generally faces a 10 percent penalty on the taxable portion of the withdrawal. Prior to plan year 2019, if a plan allowed loans, participants generally were required to take a loan before they were permitted to take a hardship withdrawal. The Bipartisan Budget Act of 2018 added a new provision (IRC section 401(k)(14)(B)) that a participant is no longer required to take a plan loan before taking a hardship distribution (but a plan may continue to include the requirement), effective for plan years beginning after December 31, 2018. The SECURE 2.0 Act (§602) conforms the rules under 403(b) plans, by adding a similar provision in IRC 403(b)(17)(B), effective for plan years beginning after December 31, 2023.

[8] The Bipartisan Budget Act of 2018 also eliminated the six-month suspension of contributions after taking a hardship withdrawal. See Dold 2018, Joint Committee on Taxation 2019 (pp. 104–105), and Internal Revenue Service 2023d.

The Bipartisan Budget Act of 2018 also changed flexibility with regard to nonhardship withdrawals, providing tax relief for those affected by the 2017 California wildfires, building on disaster relief included in the Disaster Tax Relief and Airport and Airway Extension Act of 2017. The Setting Every Community Up for Retirement Enhancement Act of 2019 (SECURE Act) provided tax relief for withdrawals related to qualified birth or adoption distributions (QBOADs). See Internal Revenue Service 2022, 2023a, 2023b, and 2023f.

[9] A coronavirus-related distribution (CRD) is any distribution from an eligible retirement plan (up to an aggregate limit of $100,000) made on or after January 1, 2020, and before December 31, 2020, to a qualified individual affected by COVID-19. A CRD is not subject to the 10 percent early withdrawal penalty, and the taxes may be paid over a three-year period starting in the year the distribution was received. In addition, a CRD may be repaid to an eligible retirement account within three years of the date of the distribution. See Internal Revenue Service 2022. In 2020, defined contribution (DC) plan recordkeepers identified 5.8 percent of DC plan participants taking CRDs. For additional discussion, see Holden, Schrass, and Chism 2021 and 2023.

[10] For a summary of CARES Act changes related to DC plan distributions and loans, see Internal Revenue Service 2022. For plan loans made to qualified individuals during the 180-day period beginning on the date of enactment (March 27, 2020), the bill increases the dollar amount available for loans from qualified plans from $50,000 to $100,000 and increases the percentage test limit for loans from half the present value of the participant's vested benefit to the entire present value of his or her vested benefit under the plan. In addition, for loans to qualified individuals outstanding as of, or after, the date of enactment, if a loan repayment is due during the period beginning on the date of enactment and ending on December 31, 2020, the repayment may be delayed for one year from the original due date.

[11] See note 10.

[12] In addition to peaking separately for middle-aged or mid-tenured participants, this observed cumulative loan incidence pattern also occurs when analyzing by age and tenure at the same time. That is, for a given age group, loan incidence peaks for mid-tenured individuals, and for a given tenure group, loan incidence peaks for middle-aged individuals. For example, among participants in their 50s, observed cumulative loan incidence rises from 23 percent for those with less than two years of tenure to 32 percent for those with more than 10 to 20 years of tenure, before falling to 24 percent for those with more than 30 years of tenure (see Figure A1). Similarly, among participants with more than 5 to 10 years of tenure, cumulative incidence rises from 27 percent for participants in their 20s to 35 percent for those in their 40s, before falling to 18 percent for those in their 60s.

[13] See Figure A12 in the appendix.

[14] Because recordkeepers provide data as of year-end, we can only observe loans with a positive balance at year-end. Thus, the observed cumulative loan incidence does not include participants who took out and paid off a loan during the same calendar year and did not have any other loan balance at year-end 2016 through 2020.

[15] A participant was categorized as taking multiple loans if, after the first year a loan was observed, the participant was observed at any point with a higher year-end loan balance than the prior year (whether the participant had paid off a prior loan and had a loan balance of zero, or the individual had taken out a new or additional loan and the combined balance exceeded the prior year-end balance). We are unable to observe loans that were initiated and paid down in the same calendar year, as well as additional loans where the total loan balance decreased from year-end to year-end.

[16] See discussion in "Background" above and notes 9 and 10.

[17] Participants who only took a loan in 2020 are also separated out because it is not possible to observe them in any years following loan initiation to follow the repayment pattern for those loans.

[18] Some of this pattern is a result of the impact of dollar limits on loan amounts, which will impact larger account balances. See Internal Revenue Service 2023c and US Department of Labor, Employee Benefits Security Administration 2023b for loan limits.

[19] For average and median initial loan balances at year-end 2017 by participant age or tenure, see Figures A4 and A5 in the appendix.

[20] A longer time frame for repayment may apply if the participant uses the loan to purchase a primary residence (see Internal Revenue Service 2023c). Early reporting on the two different types of participant loans found that the bulk of the loan activity was not to purchase a principal residence—in plan year 1998 (the last year this detail was published), only 2 percent of 401(k) plan participant loans outstanding were mortgage loans to participants (see Table D7 in *Private Pension Plan Bulletin Abstract of 1998 Form 5500 Annual Reports*, available at US Department of Labor, Employee Benefits Security Administration 2023a).

[21] See Holden, Bass, and Copeland 2023.

[22] See Holden and VanDerhei 2001; Munnell, Sundén, and Taylor 2000; and US General Accounting Office 1997.

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