Comparing Asset Allocation Before and After a Rollover From 401(k) Plans to Individual Retirement Accounts

By Craig Copeland, Ph.D., Employee Benefit Research Institute

Many sponsors of 401(k) plans have been focusing on educating participants about asset allocation and have added target-date funds to their plans’ fund lineups in order to make long-term investing automatic. However, most of the assets in 401(k) plans are ultimately rolled over to individual retirement accounts (IRAs) if the assets are retained in tax-advantaged accounts. Consequently, how the assets end up being invested in IRAs could either support or offset the allocations developed in the 401(k) plans. From this analysis, the asset allocation found in IRAs is, in many cases, not consistent with the asset allocations found in the 401(k) plans before rolling over to the IRAs.

This Issue Brief takes advantage of the Employee Benefit Research Institute’s (EBRI’s) unique participant-level databases to examine the asset allocation of 401(k) plan participants before vs. after a rollover to an IRA. A particular focus is for those allocating 100 percent to target-date/balanced funds in the 401(k) plan. This is of utmost concern as target-date funds were specifically designed to facilitate more diversified, time-horizon-appropriate asset allocations for the participants. If assets are not being allocated the same way when they end up in an IRA, this could indicate that IRA owners are losing an important investment strategy once they leave the 401(k) plan. Changes are examined across the ages of participants and the amounts of the rollover balances.

- The data for this Issue Brief consist of 401(k) plan participants who are identified as having rolled over their 401(k) plan assets to an IRA within the EBRI Integrated 401(k)/IRA Database. In this database, the 401(k) plan participants from the EBRI/ICI 401(k) Database are combined with the account owners in the EBRI IRA Database.

- When the individuals were 401(k) plan participants, they were much more likely to have assets in target-date/balanced funds than when their assets were moved to IRAs (27.5 percent on average in 401(k) plans vs. 13.4 percent on average in IRAs). In IRAs, assets were much more likely to be in money (29.2 percent on average in IRAs compared with 5.0 percent on average in 401(k) plans). The share allocated to equities, on average, was very similar across plan types — 46.2 percent in 401(k) plans and 43.4 percent in IRAs. Bonds and other assets were less likely to be used in IRAs on average than in 401(k) plans.

- There were substantial differences in the asset allocations in IRAs with balances less than $5,000 and $5,000 or more due to the large share of the smaller accounts being automatic rollovers from the 401(k) plans to the IRAs, which have a default investment to money market funds.

- The relationship of the percentage of assets allocated to target-date/balanced funds and equities was not particularly strong between when the assets were in the 401(k) plans vs. the IRAs, especially for accounts with balances less than $5,000. For example, regardless of the share of the equity allocation in the 401(k) plan, a very high share of these accounts had less than 10 percent in equities after the rollover. For accounts with balances of $5,000 or more, the relationship between the equity allocations in the account types was stronger but still not particularly strong. Specifically, of the 401(k) plans with more than 90 percent in equities, only 29.7 percent still had more than 90 percent in equities in the IRA after the rollover.
Regardless of the size of the account, the asset allocation in the 401(k) plan had a relatively low likelihood of matching the asset allocation in the IRA after the rollover. This has implications for plan sponsors that are trying to help their participants make the best decisions within the plans, which may mean they need to encourage the participants to retain their assets in the plan or directly remind former participants what their allocations were before the rollover. For IRA administrators, more education may be necessary for new account holders who do not use financial advisors, and easier or automatic mapping of asset allocations after the rollovers may be necessary when decisions are not made by the account holder.
Craig Copeland is Senior Research Associate at the Employee Benefit Research Institute (EBRI). This Issue Brief was written with assistance from the Institute's research and editorial staffs. Any views expressed in this report are those of the author and should not be ascribed to the officers, trustees, or other sponsors of EBRI, Employee Benefit Research Institute-Education and Research Fund (EBRI-ERF), or their staffs. Neither EBRI nor EBRI-ERF lobbies or takes positions on specific policy proposals. EBRI invites comment on this research.

Suggested Citation: Craig Copeland, “Comparing Asset Allocation Before and After a Rollover From 401(k) Plans to Individual Retirement Accounts,” EBRI Issue Brief, no. 495 (Employee Benefit Research Institute, November 7, 2019).

Copyright Information: This report is copyrighted by the Employee Benefit Research Institute (EBRI). You may copy, print, or download this report solely for personal and noncommercial use, provided that all hard copies retain any and all copyright and other applicable notices contained therein, and you may cite or quote small portions of the report provided that you do so verbatim and with proper citation. Any use beyond the scope of the foregoing requires EBRI’s prior express permission. For permissions, please contact EBRI at permissions@ebri.org.

Report Availability: This report is available on the internet at www.ebri.org

Data Security
The Employee Benefit Research Institute’s (EBRI’s) retirement databases (EBRI/ICI Participant-Directed Retirement Plan Data Collection Project (401(k) database), the EBRI IRA Database, and the EBRI Integrated 401(k)/IRA Database) have undergone multiple independent security audits and have been certified to be fully compliant with the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) ISO/IEC 27002 Information Security Audit standard. Moreover, EBRI has obtained a legal opinion that the methodology used meets the privacy standards of the Gramm-Leach-Bliley Act. At no time has any nonpublic, personal information that is personally identifiable, such as Social Security numbers, been transferred to or shared with EBRI.

Table of Contents
Introduction ............................................................................................................................................. 5
Overall Movement Away From Target-Date Funds and Toward Money .................................................. 7
Changes to Allocations to Target-Date/Balanced Funds and Equities ..................................................... 8
Full Spectrum of Asset Allocation Changes After a Rollover .................................................................. 12
Allocations by Account Owner’s Age ........................................................................................................ 14
Major Differences in Small vs. Large Rollover Balances ..................................................................... 18
How Allocations Change for the Largest Rollover Balances ................................................................. 21
Conclusion ................................................................................................................................................ 22
Endnotes ................................................................................................................................................. 23

Figures
Figure 1, Distribution of the 401(k) Plan Participants/Individual Retirement Account Owners, by Age ............. 6
Figure 2, Distribution of the 401(k) Plan Participants/Individual Retirement Account Owners, by Rollover Balance .... 7
Figure 3, Average Asset Allocation in 401(k) Plans Before vs. After a Rollover, by Rollover Balance ............... 8
Figure 4, Distribution of the Percentages of Assets Allocated to Equities in 401(k) Plans Before vs. After a Rollover ... 9

Figure 5, Distribution of the Percentages of Assets Allocated to Target-Date/Balanced Funds in 401(k) Plans Before vs. After a Rollover ................................................................. 9

Figure 6, Distribution of the Percentages of Assets Allocated to Equities Plus Target-Date/Balanced Funds in 401(k) Plans Before vs. After a Rollover ................................................................. 10

Figure 7, Average Asset Allocation in Individual Retirement Accounts After a Rollover When 401(k) Plans Were More Than 90 Percent Invested in Equities, by Rollover Balance ................................................................. 11

Figure 8, Average Asset Allocation in Individual Retirement Accounts After a Rollover When 401(k) Plans Were 100 Percent Invested in Target-Date/Balanced Funds, by Rollover Balance ................................................................. 11

Figure 9, Equity Allocation in 401(k) Plans Before vs. After a Rollover ................................................................. 12

Figure 10, Target-Date/Balanced Fund Allocation in 401(k) Plans Before vs. After Rollover ................................................................. 13

Figure 11, Target-Date/Balanced Fund Plus Equity Allocation in 401(k) Plans Before vs. After a Rollover ................................................................. 14

Figure 12, Average Asset Allocation in 401(k) Plans Before vs. After a Rollover for Balances Less Than $5,000, by Age of Account Owner ................................................................. 15

Figure 13, Average Asset Allocation in 401(k) Plans Before vs. After a Rollover for Balances of $5,000 or More, by Age of Account Owner ................................................................. 15

Figure 14, Average Asset Allocation in Individual Retirement Accounts After a Rollover When 401(k) Plans Were 100 Percent Allocated to Target-Date/Balanced Funds, by Age of Account Owner and Rollover Balance ................................................................. 16

Figure 15, Average Asset Allocation in Individual Retirement Accounts After a Rollover When 401(k) Plans Were 90 Percent or More Allocated to Equities, by Age of Account Owner and Rollover Balance ................................................................. 17

Figure 16, Target-Date/Balanced Fund Allocation in Individual Retirement Accounts After a Rollover When 401(k) Plans Were 100 Percent Allocated to Target-Date/Balanced Funds, by Age of Account Owner and Rollover Balance ................................................................. 17

Figure 17, Average Asset Allocation in 401(k) Plans vs. Average Asset Allocation in Individual Retirement Accounts (IRAs) After a Rollover, by Rollover Balance ................................................................. 18

Figure 18, Target-Date/Balanced Fund Allocation in Individual Retirement Accounts After a Rollover When 401(k) Plans Were 100 Percent Allocated to Target-Date/Balanced Funds, by Rollover Balance ................................................................. 19

Figure 19, Average Asset Allocation in Individual Retirement Accounts After a Rollover When 401(k) Plans Were 100 Percent Allocated to Target-Date/Balanced Funds, by Rollover Balance ................................................................. 20

Figure 20, Average Asset Allocation in Individual Retirement Accounts After a Rollover When 401(k) Plans Were 90 Percent or More Allocated to Equities, by Rollover Balance ................................................................. 20

Figure 21, Equity Allocation in 401(k) Plans Before vs. After a Rollover, Rollover Balances of $250,000 or More ........... 21

Figure 22, Target-Date/Balanced Fund Allocation in 401(k) Plans Before vs. After a Rollover, Rollover Balances of $250,000 or More ................................................................. 22
Comparing Asset Allocation Before and After a Rollover From 401(k) Plans to Individual Retirement Accounts

By Craig Copeland, Ph.D., Employee Benefit Research Institute

Introduction

Sponsors and administrators of 401(k) plans have spent a large amount of resources on educating plan participants about how to allocate the assets held in these plans. Furthermore, for those participants who do not make an allocation decision or prefer to not be actively engaged in the allocation of their assets within the plans, target-date funds (TDFs) have commonly been added to 401(k) plans. These funds are aggressively invested in equities the further the participants are from their target retirement date and automatically rebalance assets to less aggressive investment in equities as the participants age along a glide path and become nearer to their targeted retirement date. However, owners of individual retirement accounts (IRAs) are not as directly exposed (or exposed again) to these education efforts, and TDFs are not a default investment in IRAs. In addition, the forced rollovers from 401(k) plans with balances of $1,000 up to $5,000 are defaulted into money market funds when automatically rolled over to IRAs. Consequently, allocations in 401(k) plans can be unwound when assets are rolled from the 401(k) plans to the IRAs. Furthermore, the vast majority of assets built up in 401(k) plans are rolled over to IRAs by the time 401(k) plan participants retire. Thus, how asset allocation changes after a rollover provides important information on how retirees are positioning what is potentially their largest asset aside from their home.

This Issue Brief examines the asset allocation of 401(k) plan participants at the end of the year before a rollover to an IRA vs. the asset allocation in the IRA at the end of the year after the rollover. The allocation can be determined to the dollar as well as placed into categories for easier summarization. Furthermore, for those who allocated 100 percent of their assets to target-date/balanced funds in the 401(k) plans, how the allocations subsequently looked once the assets were in IRAs is a particular focus. This is of utmost concern as TDFs were specifically designed to make the asset allocation process automatic, but if the assets are not being allocated the same way when they end up in the IRA, any benefit from the TDFs could be offset. Also, the accounts with more than 90 percent in equities are examined to see if that high of an allocation remained once the assets were moved to the IRAs. These changes are examined across the ages of the participants and the amount of the rollover balances.

Automatic Rollover of Mandatory Cashouts: The Department of Labor’s (DOL’s) Safe Harbor Final Regulations

In 2004, the DOL issued a final regulation that established a safe harbor with respect to the automatic rollover of mandatory cashouts to individual retirement accounts (IRAs) from defined contribution (DC) plans governed by the Employee Retirement Income Security Act (ERISA) pertaining to account balances between $1,000 and $5,000. The safe harbor stipulated that the account balance must be rolled over to a product that meets requirements for preservation of principal and providing a reasonable rate of return, consistent with liquidity, such as a savings account. In contrast, two years later, the Pension Protection Act (PPA) included a safe harbor that mandated participants who are automatically enrolled in a DC plan governed by ERISA must be invested in a diversified fund such as a target-date fund.
About the Data

The data for this Issue Brief consist of 401(k) plan participants who are identified as having rolled over their 401(k) plan assets to an individual retirement account (IRA) within the EBRI Integrated 401(k)/IRA Database. In this database, the 401(k) plan participants from the EBRI/ICI 401(k) Database are combined with the account owners of the EBRI IRA Database. Specifically, 121,162 individuals were found to have had a 401(k) plan in 2010–2015 but were not in the 401(k) database in the next year and had a rollover to an IRA at some point in the next year from 2011–2016 (2010 to 2011, 2011 to 2012, etc.) that was within 20 percent of prior end-of-year 401(k) plan balance. These participants/account owners were distributed across all ages, sizes of rollover balances, and asset allocations within the 401(k) plan (Figure 1 and Figure 2).

Asset classes are broken into the following categories:

**Equities** — Equity mutual funds, directly held individual stocks, and other 100 percent equity-investment vehicles (in the 401(k) plans, this includes company stock).

**Bonds** — Bond mutual funds, directly held bonds, and other 100 percent bond-investment vehicles.

**Money** — Money market mutual funds, money market savings accounts, and certificates of deposit.

**Target-date/balanced funds** — Balanced, lifestyle/lifecycle, target-date funds (TDFs), and any other funds that have a partial investment in both equities and bonds (TDFs are reported separately in the 401(k) database but not in the IRA database, so they are consolidated into the target-date/balanced funds category to be consistent).

**Other assets** — Any remaining assets that do not fit into the above categories, such as real estate (both investment trusts and directly purchased), fixed and variable annuities, etc.

---

Figure 1
Distribution of the 401(k) Plan Participants/Individual Retirement Account Owners, by Age

Source: EBRI Integrated 401(k)/IRA Database.
Overall Movement Away From Target-Date Funds and Toward Money

Clear differences emerge between the average individually weighted asset allocation in 401(k) plans vs. when assets have been rolled over to IRAs (Figure 3). When assets were in 401(k) plans, they were much more likely to be in target-date/balanced funds than when those assets were moved to IRAs (27.5 percent on average in 401(k) plans vs. 13.4 percent on average in IRAs). In IRAs, assets were much more likely to be in money (29.2 percent on average in IRAs compared with 5.0 percent on average in 401(k) plans). The share allocated to equities, on average, was very similar across plan types — 46.2 percent in 401(k) plans and 43.4 percent in IRAs. Bonds and other assets were less likely to be used in IRAs, on average, than in 401(k) plans.

The differences between the allocations in 401(k) plans and IRAs were particularly stark among those with rollover balances less than $5,000. The average allocation in 401(k) plans of this size was 47.5 percent to target-date/balanced funds and 29.1 percent to equities. However, once the assets were moved to IRAs, the average allocation dropped to 7.8 percent for target-date/balanced funds and 11.8 percent for equities. In the place of these two asset types in IRAs was money, as the portion allocated to money jumped from 6.6 percent in 401(k) plans to 75.9 percent when the assets were moved to IRAs.

This appears to be the result of the differing default investments in 401(k) plans relative to IRAs. The most common automatic enrollment default in 401(k) plans is target-date/balanced funds, leading to higher target-date/balanced fund allocations in the 401(k) plans. In contrast, for automatic rollover IRAs that result from 401(k) plans with balances of $1,000 up to $5,000, the default investment is a money market fund. Consequently, the long-term investment strategy being established in 401(k) plans from TDFs was lost when the assets were rolled over to IRAs.

The differences in the average allocation between assets in 401(k) plans vs. IRAs were not as glaring for rollover balances that were $5,000 or more. The one difference that stood out was the movement out of target-date/balanced funds when assets were rolled over to IRAs. The average allocation to target-date/balanced funds in the 401(k) plans...
Changes to Allocations to Target-Date/Balanced Funds and Equities

Given that the overall average allocation to equities in the 401(k) plans and IRAs was very similar, it is not surprising that the distribution of the percentages allocated to equities across all the participants who rolled over their 401(k) plan assets to IRAs was also similar before and after the rollover (Figure 4). The percentage of accounts with less than 10 percent in equities in 401(k) plans was 33.8 percent compared with 35.5 percent after the rollover to IRAs. The largest change was among those with more than 90 percent of their assets in equities, the percentage of which decreased after the rollover from 21.8 percent to 16.4 percent.

The distribution of the percentages allocated to target-date/balanced funds did show more change after the assets were rolled over to IRAs (Figure 5). When the assets were in 401(k) plans, 59.0 percent of the accounts had less than 10 percent of their assets in target-date/balanced funds. However, after rolling over, 77.5 percent of the accounts had less than 10 percent in target-date/balanced funds. Furthermore, the percentage of the 401(k) plans with more than 90 percent in target-date/balanced funds decreased to 7.4 percent after being rolled over from 18.8 percent when in the 401(k) plans.

The percentage of accounts with more than 90 percent in equities plus target-date/balanced funds dropped from 51.3 percent when in 401(k) plans to 30.2 percent after rolling over to IRAs (Figure 6). Correspondingly, the percentage of accounts with less than 10 percent of their assets in equities plus target-date/balanced funds increased to 24.9 percent after rolling over from 12.0 percent when in the 401(k) plans.
Figure 4
Distribution of the Percentages of Assets Allocated to Equities in 401(k) Plans Before vs. After a Rollover

Source: EBRI Integrated 401(k)/IRA Database.

Figure 5
Distribution of the Percentages of Assets Allocated to Target-Date/Balanced Funds in 401(k) Plans Before vs. After a Rollover

Source: EBRI Integrated 401(k)/IRA Database.
Glaring differences were found between the allocations of account owners who had more than 90 percent of their assets in equities in their 401(k) plan when balances were less than $5,000 vs. when balances were $5,000 or more (Figure 7). Despite having more than 90 percent of their assets in equities in their 401(k) plans, the average allocation to money in IRAs for accounts with rollover balances less than $5,000 was 70.5 percent, with only 17.9 percent going to equities. In contrast, when such IRAs had rollover balances of $5,000 or more, the average allocation to equities was 58.5 percent. Money was still a relatively large share, on average, at 19.3 percent, but it was much less than in small-balance IRAs.

A similar finding among 401(k) plans that had 100 percent of assets in target-date/balanced funds was also discerned. For such accounts that had rollover balances less than $5,000, the average allocation to money was 76.7 percent — only 11.2 percent went to target-date/balanced funds in the IRAs (Figure 8). In contrast, when IRA rollover balances were $5,000 or more, the average allocation to money was 24.8 percent, equities 35.6 percent, and target-date/balanced funds 30.0 percent. This was still a large decrease in target-date/balanced funds but was not as dramatic as for IRAs with small balances.
Figure 7
Average Asset Allocation in Individual Retirement Accounts After a Rollover When 401(k) Plans Were More Than 90 Percent Invested in Equities, by Rollover Balance (Individually Weighted)

Source: EBRI Integrated 401(k)/IRA Database.

Figure 8
Average Asset Allocation in Individual Retirement Accounts After a Rollover When 401(k) Plans Were 100 Percent Invested in Target-Date/Balanced Funds, by Rollover Balance (Individually Weighted)

Source: EBRI Integrated 401(k)/IRA Database.
Full Spectrum of Asset Allocation Changes After a Rollover

Given the considerable changes in the allocations of accounts with total or near-total allocations in one asset category when assets were rolled over, it is important to understand the full spectrum of changes in asset allocations after a rollover. Figure 9 shows how, regardless of the original 401(k) asset allocation, accounts with balances less than $5,000 had, on average, low equity allocations (less than 10 percent) when rolled over to IRAs. If the pre- and post-rollover asset allocations were the same, the color coding on Figure 9 would be all blue for the bar farthest to the left, all orange for the next bar, etc. This is clearly not the case. While 88.1 percent of the 401(k) plans that had less than 10 percent in equities were so allocated in the IRAs, 77.7 percent of 401(k) plans that had more than 90 percent in equities were also allocated to less than 10 percent equities in the IRAs. The likelihood of the IRAs having more than 90 percent of their assets in equities increased only slightly with the share of the assets in equities originally in the 401(k) plans.

For accounts with balances of $5,000 or more, the relationship between the equity allocations and the account types was stronger but still fairly weak (Figure 9). For example, of the 401(k) plans with more than 90 percent in equities, only 29.7 percent still had this allocation when rolled over to IRAs; another 28.0 percent had 61 to 90 percent in equities in the IRAs. Similarly, 47.6 percent of the accounts that started off with less than 10 percent of assets in equities in the 401(k) plans still had less than 10 percent in equities when rolled over to IRAs.

Likewise, regardless of the original 401(k) plan allocations to target-date/balanced funds, for accounts with rollover balances less than $5,000, IRA allocations to target-date/balanced funds were generally low: 87.0 percent or more had less than 10 percent (Figure 10). Specifically, 93.8 percent of IRAs had less than 10 percent in target-date/balanced fund allocations when the 401(k) plan allocations to such assets were less than 10 percent. Even when the 401(k) plan allocations to target-date/balanced funds were more than 90 percent, the likelihood of the allocations in the IRA being less than 10 percent was 87.0 percent. The likelihood of having a greater-than-90-percent allocation in target-
date/balanced funds in the IRA after the rollover increased with the allocation to target-date/balanced funds in the 401(k) plan, but it only increased slightly.

The relationship between having a higher target-date/balanced fund allocation in the IRA and having a higher allocation in the 401(k) plan was stronger when balances were $5,000 or more, but it was still fairly weak (Figure 10). Approximately 1 in 5 (21.7 percent) of the accounts that had most (more than 90 percent) of their assets in target-date/balanced funds when in the 401(k) plans continued to have that allocation level in the IRAs after the rollover. This compares with 4.4 percent of accounts with less than 10 percent in target-date/balanced funds in both the 401(k) plans and the IRAs.8

![Figure 10](image)

**Figure 10**
**Target-Date/Balanced Fund Allocation in 401(k) Plans Before vs. After a Rollover**

Adding the equity allocation to the target-date/balanced fund allocation in the 401(k) plan does little to change the equation. For accounts with rollover balances less than $5,000, the allocation to these two asset categories combined was very low after the rollover to IRAs, regardless of the combined allocation in 401(k) plans (Figure 11). The share of the accounts with less than 10 percent in equities and target-date/balanced funds combined in the IRAs ranged from 84.0 percent for accounts that had less than 10 percent in these asset categories in the 401(k) plans to 73.8 percent of the accounts with combined allocations of 40 to 90 percent in the 401(k) plans.

There was a much stronger correlation between the 401(k) plan and the IRA allocations to equities and target-date/balanced funds when rollover balances were $5,000 or more (Figure 11). However, there was still a significant portion of accounts having a different range of allocations to such assets after a rollover. In many cases, the allocations were substantially different in the IRAs vs. in the 401(k) plans.
Allocations by Account Owner’s Age

When rollover balances were less than $5,000, the youngest account owners had the highest average allocations to target-date/balanced funds while assets were in 401(k) plans, but the highest allocations to money were when assets were rolled over to IRAs (Figure 12). While money allocations were lower for IRA owners 71 or older, they were still considerably higher than when assets were in the 401(k) plans (64.4 percent and 14.4 percent, respectively). Equity use generally increased in both account types as the account owner became older.

For accounts with balances of $5,000 or more, the average allocation before and after rollovers from 401(k) plans to IRAs was more consistent (Figure 13). However, the average allocation to target-date/balanced funds was lower and the average allocation to money was higher in IRAs than in 401(k) plans across all ages, while the average equity allocation was similar across ages and plan types.

When rolled over to IRAs, target-date/balanced fund allocations declined dramatically from 401(k) plans that had 100 percent allocated to this asset class, regardless of whether balances were greater or less than $5,000. However, the discrepancy was much greater for smaller balances: The average percentage allocated to money when rolled over to IRAs was at least 65.1 percent across all age groups among accounts with rollover balances less than $5,000 (Figure 14). The average allocated to money did decrease with account owner age among these accounts, but the average amount allocated to target-date/balanced funds did not surpass 15 percent for any age group.

Among accounts with rollover balances of $5,000 or more, target-date/balanced fund use was higher than for the smaller accounts, but the average allocation did not surpass 50 percent in IRAs (Figure 14). The average equity allocation increased with account owner age through the 50s age group and then declined thereafter with age. A potentially interesting result of the movement away from target-date/balanced funds after a rollover is that the resulting overall average allocation to equities could be higher for those ages 65 or older when adding the average equity allocation and target-date/balanced fund allocation. In contrast, for younger account holders, that allocation could be significantly lower than the target-date/balanced funds’ equity allocations. Thus, the declining glide path to equities that is standard in target-date/balanced funds as the fund owner ages may be reversed after rollovers.
Figure 12
Average Asset Allocation in 401(k) Plans Before vs. After a Rollover for Balances Less Than $5,000, by Age of Account Owner (Individually Weighted)

*Individual retirement accounts.
Source: EBRI Integrated 401(k)/IRA Database.

Figure 13
Average Asset Allocation in 401(k) Plans Before vs. After a Rollover for Balances of $5,000 or More, by Age of Account Owner (Individually Weighted)

*Individual retirement accounts.
Source: EBRI Integrated 401(k)/IRA Database.
Accounts with rollover balances less than $5,000 having more than 90 percent allocated to equities when in 401(k) plans again had high average allocations to money after the rollover across each owner age group (Figure 15). The average allocation to money did trend downward as the age of the account owner increased, going from 75.3 percent for accounts owned by those younger than age 30 to 58.8 percent for those with owners ages 71 or older. Equity allocations did increase with the age of the account owner. When the average allocation to equities was more than 90 percent in the 401(k) plans, it dropped to no more than 60.2 percent across age groups, even when rollover balances were $5,000 or more (Figure 15).

Allocations to target-date/balanced funds in IRAs when rolled over from 401(k) plans with 100 percent allocations to such funds were generally under 10 percent across all owner age groups for those with balances less than $5,000. For accounts with owners ages less than 30, 89.6 percent had allocations less than 10 percent to target-date/balanced funds; for those with owners ages 71 or older, 83.0 percent had such allocations (Figure 16). For accounts with balances of $5,000 or more, almost all age groups saw the majority of accounts shift from 100 percent in target-date/balanced fund allocations to less than 10 percent in such funds when rolled over to the IRAs. However, a much larger proportion had more than 90 percent allocated to target-date/balanced funds within the $5,000-or-more-balance group compared with the small-balance group. The two youngest age groups had the highest likelihoods of staying 100 percent in target-date/balanced funds after the rollover to the IRAs.
### Figure 15

**Average Asset Allocation in Individual Retirement Accounts After a Rollover When 401(k) Plans Were 90 Percent or More Allocated to Equities, by Age of Account Owner and Rollover Balance**

(Individually Weighted)

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Less than 30</th>
<th>30–39</th>
<th>40–49</th>
<th>50–59</th>
<th>60–64</th>
<th>65–70</th>
<th>71 or older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balances Less Than $5,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td>4.5%</td>
<td>4.5%</td>
<td>4.5%</td>
<td>5.3%</td>
<td>5.7%</td>
<td>6.8%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Target-Date/Balanced Funds</td>
<td>25.1%</td>
<td>20.9%</td>
<td>19.4%</td>
<td>20.9%</td>
<td>31.0%</td>
<td>27.4%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Bond</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Money</td>
<td>51.9%</td>
<td>60.2%</td>
<td>59.9%</td>
<td>57.0%</td>
<td>53.8%</td>
<td>53.5%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Balances $5,000 or More</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td>8.3%</td>
<td>8.5%</td>
<td>8.2%</td>
<td>8.3%</td>
<td>8.4%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Target-Date/Balanced Funds</td>
<td>19.2%</td>
<td>18.3%</td>
<td>18.8%</td>
<td>20.3%</td>
<td>21.6%</td>
<td>23.3%</td>
<td>0%</td>
</tr>
<tr>
<td>Bond</td>
<td>3.1%</td>
<td>3.6%</td>
<td>4.2%</td>
<td>6.3%</td>
<td>8.1%</td>
<td>7.7%</td>
<td>0%</td>
</tr>
<tr>
<td>Money</td>
<td>13.2%</td>
<td>9.1%</td>
<td>8.6%</td>
<td>8.1%</td>
<td>8.2%</td>
<td>7.0%</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>0.6%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: EBRI Integrated 401(k)/IRA Database.

### Figure 16

**Target-Date/Balanced Fund Allocation in Individual Retirement Accounts After a Rollover When 401(k) Plans Were 100 Percent Allocated to Target-Date/Balanced Funds, by Age of Account Owner and Rollover Balance**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Less than 30</th>
<th>30–39</th>
<th>40–49</th>
<th>50–59</th>
<th>60–64</th>
<th>65–70</th>
<th>71 or older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balances Less Than $5,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater Than 90%</td>
<td>9.1%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
</tr>
<tr>
<td>61–90%</td>
<td>9.1%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
</tr>
<tr>
<td>40–60%</td>
<td>34.7%</td>
<td>36.8%</td>
<td>38.0%</td>
<td>39.0%</td>
<td>40.0%</td>
<td>41.0%</td>
<td>42.0%</td>
</tr>
<tr>
<td>10–39%</td>
<td>19.6%</td>
<td>18.3%</td>
<td>17.0%</td>
<td>15.7%</td>
<td>14.4%</td>
<td>13.1%</td>
<td>11.8%</td>
</tr>
<tr>
<td>Less Than 10%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Balances $5,000 or More</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater Than 90%</td>
<td>9.1%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
</tr>
<tr>
<td>61–90%</td>
<td>9.1%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>9.0%</td>
</tr>
<tr>
<td>40–60%</td>
<td>34.7%</td>
<td>36.8%</td>
<td>38.0%</td>
<td>39.0%</td>
<td>40.0%</td>
<td>41.0%</td>
<td>42.0%</td>
</tr>
<tr>
<td>10–39%</td>
<td>19.6%</td>
<td>18.3%</td>
<td>17.0%</td>
<td>15.7%</td>
<td>14.4%</td>
<td>13.1%</td>
<td>11.8%</td>
</tr>
<tr>
<td>Less Than 10%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: EBRI Integrated 401(k)/IRA Database.
Major Differences in Small vs. Large Rollover Balances

As the size of rollover balances grew, the average asset allocations were increasingly likely to look the same after vs. before the rollover from 401(k) plans to IRAs (Figure 17). The average equity allocations were virtually equal for balances of $50,000 or more. However, the average allocation to target-date/balanced funds consistently decreased after the rollover, while the average money allocation consistently increased after the rollover. The accounts with smaller rollover balances had decreasing average allocations to equities and target-date/balanced funds after rollover and dramatic increases in the average allocations to money, likely due to automatic rollovers into money market funds in IRAs and subsequent inertia when it comes to reallocation of the rolled-over money.

Small accounts (balances less than $5,000) that were allocated entirely to target-date/balanced funds when in the 401(k) plans virtually entirely switched to less than 10 percent allocations to target-date/balanced funds. Approximately 85 percent had such an allocation once rolled over to an IRA. Only about 10 percent continued to have the majority of assets in target-date/balanced funds (Figure 18). Even for accounts with balances of $5,000 or more, the majority had less than 10 percent in target-date/balanced funds when rolled over to the IRAs. Just over 20 percent of accounts with balances of $5,000–$99,999 maintained more than 90 percent of the assets in target-date/balanced funds. However, for accounts with balances of $100,000 or more, less than 20 percent had more than 90 percent in target-date/balanced funds. This lower percentage could reflect the fact that larger balances are more likely to attract the interest of advisors who would be unlikely to use balanced funds.
Given that only a small amount of the assets previously invested in target-date/balanced funds were still invested in them in the IRAs, Figure 19 shows how assets were actually invested on average when they were rolled over. The majority of the assets in the small accounts (balances less than $5,000) were invested in money on average, with approximately only 10 percent each invested in target-date/balanced funds and equities. Again, this is likely reflective of automatic rollovers. However, for accounts with balances of $5,000 or more, the average percentage going to equities increased with the size of the rollover balance, from 26.4 percent for accounts with $5,000–$9,999 to 45.2 percent for accounts with $100,000 or more. The average allocation to target-date/balanced funds reached 32.1 percent for accounts with balances of $10,000–$49,999 before tapering off to 25.5 percent for accounts with $250,000 or more, where advisers are more likely to be involved. The average allocation to money decreased for accounts with balances of $5,000 or more as the rollover balance increased. Still, even at balances of $250,000 or more, a relatively high proportion, on average, was invested in money (11.1 percent).

For the accounts that had more than 90 percent invested in equities, the average allocation in money decreased as the rollover balance increased, from 71.2 percent for accounts with less than $5,000 to 13.9 percent for accounts with balances of $250,000 or more (Figure 20). Correspondingly, the share allocated to equities, on average, increased from 17.0 percent for those with $1,000 or less to 64.0 percent for those with $250,000 or more.
Figure 19
Average Asset Allocation in Individual Retirement Accounts After a Rollover
When 401(k) Plans Were 100 Percent Allocated to Target-Date/Balanced Funds, by Rollover Balance
(Individually Weighted)

Source: EBRI Integrated 401(k)/IRA Database.

Figure 20
Average Asset Allocation in Individual Retirement Accounts After a Rollover When
401(k) Plans Were 90 Percent or More Allocated to Equities, by Rollover Balance
(Individually Weighted)

Source: EBRI Integrated 401(k)/IRA Database.
**How Allocations Change for the Largest Rollover Balances**

Since accounts with the highest rollover balances ($250,000 or more) were most likely to have average allocations that resembled their prior 401(k) allocations, it is important to understand whether account owners actually kept their allocations the same as before or it is simply that the allocations were the same just in the aggregate. This helps to understand whether the lower variation among larger-balance accounts was due to having sufficient assets to potentially receive professional advice.

Starting with the equity allocations, Figure 21 shows how account owners who had specific allocations to equities in 401(k) plans invested their assets once they were rolled over to the IRAs. If the allocations were the same, the farthest-left bar would be completely blue, the next bar would be completely orange, etc. While that is clearly not the case, there was some positive correlation: The largest proportion of accounts with equity allocations less than 10 percent after a rollover is in the first bar, the largest proportion of accounts with equity allocations of 10 to 39 percent after a rollover is in the second bar, etc. Still, in each case, there was considerable movement away from the original equity allocation. For example, 35.7 percent of the accounts that had less than 10 percent in equities in the 401(k) plans still had that level in the IRAs, but over 30 percent had allocations to equities in excess of 60 percent in the IRAs (24.5 percent with a 61 to 90 percent allocation in IRAs and 6.8 percent with more than 90 percent). Furthermore, only 27.1 percent of the 401(k) plans with more than 90 percent in equities still had that high of an allocation when rolled over to the IRAs, with 12.9 percent having less than 10 percent in equities in the IRAs.

More tellingly, in Figure 22, the target-date/balanced fund allocations changed significantly when assets were rolled over to an IRA from a 401(k) plan. A low percentage in this group had target-date/balanced funds as their primary investment when they moved to IRAs, regardless of the original allocation to target-date/balanced funds in the 401(k) plans. Less than 20 percent had a target-date/balanced fund as their primary investment in the IRA, even when such an investment had been the primary investment originally in the 401(k) plan.

![Figure 21: Equity Allocation in 401(k) Plans Before vs. After a Rollover, Rollover Balances of $250,000 or More](source: EBRI Integrated 401(k)/IRA Database)
**Conclusion**

Sponsors of 401(k) plans often expend considerable resources in educating participants about asset allocation and have added target-date/balanced funds to their plans’ fund lineups in order to make long-term investing automatic. However, most of the assets in 401(k) plans are ultimately rolled over to IRAs if the assets are retained in tax-advantaged accounts. Consequently, how the assets end up being invested in IRAs could either support or offset the allocations developed in the 401(k) plans. From this analysis, the asset allocation found in IRAs is, in many cases, not consistent with the asset allocation found in the 401(k) plans before rolling over to the IRAs.

The issue is particularly acute for small-balance rollovers (less than $5,000), as virtually all of these assets ended up in money in the IRAs, even if the assets were invested 100 percent in target-date/balanced funds in the 401(k) plans. Consequently, after being moved to the IRAs, these accounts will not be able to take advantage of the long-term higher returns that have traditionally resulted from investing in equities. Therefore, facilitating the movement of the IRA assets of those still working back into 401(k) plans, such as through auto portability measures, could help achieve the longer-term asset allocation strategies that have been developed in 401(k) plans, particularly for accounts with balances less than $5,000, which are far more likely to be automatic enrollees and then automatic rollovers. Also, an examination of the default investment in automatic rollovers may be warranted.

For the accounts with balances of $5,000 or more, the asset allocations were more closely aligned between the two account types. But a significant number of accounts had asset allocation levels that differed by large amounts when in the 401(k) plans vs. in the IRAs. There isn’t a clear reason for the changes in asset allocation after the rollover except for some potential stickiness in money after a rollover because the new account owner has not executed an allocation decision.

The aggregate allocation numbers of these larger accounts mask the issue of just how much account owners change their allocations after rollovers, since some were allocating more to equities after the rollover while others were...
allocating less. Thus, the overall numbers look somewhat similar, particularly for the equity allocations. This even occurred among the largest accounts ($250,000), where it is most likely that professional financial help would be received. However, it could be the receiving of the financial help that caused the changes to occur. Unfortunately, only the result of a large number of changes in asset allocations can be determined from the data, not the reason behind the changes.

Regardless of the size of the account, the asset allocation in the 401(k) plan is likely not to be same as the asset allocation in the IRA after the rollover. This has implications for plan sponsors that are trying to help their participants make the best decisions within the plans, which may mean they need to encourage the participants to retain their assets in the plan or directly remind former participants what their allocations were before the rollover. For IRA administrators, more education may be necessary for new account holders who do not use financial advisors, and easier or automatic mapping of asset allocations after the rollovers may be necessary when decisions are not made by the account holder.

Endnotes

1 However, some IRA owners could have financial advisors that could create an appropriate asset allocation for them.

2 Not including $5,000.

3 Plan sponsors are allowed to cash out accounts with less than $5,000. However, for accounts with balances from $1,000 up to the $5,000, any cashed-out accounts must be rolled over to an IRA unless the participant asks otherwise. By regulation, the default investment (the allocation of assets if the participant/account owner does not specify one) in these rollover IRAs must be a money market fund.


5 For more information about the EBRI IRA Database, see Craig Copeland, “EBRI IRA Database: IRA Balances, Contributions, Rollovers, Withdrawals, and Asset Allocation, 2016 Update,” EBRI Issue Brief, no. 456 (Employee Benefit Research Institute, August 13, 2018) for the latest cross-sectional results and background on the database. For the latest longitudinal results, see Craig Copeland, “Individual Retirement Account Balances, Contributions, Withdrawals, and Asset Allocation Longitudinal Results 2010–2016: The EBRI IRA Database,” EBRI Issue Brief, no. 462 (Employee Benefit Research Institute, October 22, 2018).

6 Target-date funds accounted for 78 percent of all balanced funds in the 401(k) database in 2016. See VanDerhei, Holden, Alonso, and Bass (September 2018) (see endnote 4).

7 Another potential reason for higher money allocations in IRAs than in 401(k) plans is that many IRA administrators require the rolled-over assets to be brought into the account as a money market sweep account, and then the participant must reallocate the assets after it arrives as 100 percent money. In some cases, the reallocation in the IRAs from money to other types of assets does not occur.

8 The distribution of the allocation in IRAs to target-date/balanced funds when the 401(k) plans were 100 percent allocated to target-date/balanced funds was identical to the distribution of the 401(k) plans with more than 90 percent allocated to target-date/balanced funds. This is due to the fact that virtually all of the accounts with allocations of more than 90 percent had 100 percent allocations to target-date/balanced funds. This was true for accounts with both less than $5,000 and $5,000 or more.