

ICI RESEARCH REPORT

The IRA Investor Profile: Roth IRA Investors' Activity, 2007–2014

August 2016



ICI INVESTMENT
COMPANY
INSTITUTE®

The IRA Investor Database™

The Investment Company Institute maintains an account-level database with more than 16 million individual retirement account (IRA) investors. The aim of this database is to increase public understanding of this important segment of the U.S. retirement market by expanding on the existing household surveys and Internal Revenue Service (IRS) tax data on IRA investors. By tapping account-level records, research drawn from the database can provide important insights into IRA investor demographics, activities, and asset allocation decisions. The database is designed to shed light on key determinants of IRA contribution, conversion, rollover, and withdrawal activity, and the types of assets that investors hold in these accounts.

The Investment Company Institute is the national association of U.S. investment companies, including mutual funds, closed-end funds, exchange-traded funds (ETFs), and unit investment trusts (UITs). ICI seeks to encourage adherence to high ethical standards, promote public understanding, and otherwise advance the interests of funds, their shareholders, directors, and advisers.

Suggested citation: Holden, Sarah, and Daniel Schrass. 2016. "The IRA Investor Profile: Roth IRA Investors' Activity, 2007–2014." *ICI Research Report* (August). Available at www.ici.org/pdf/rpt_16_ira_roth.pdf.

Copyright © 2016 by the Investment Company Institute. All rights reserved.

The IRA Investor Profile: Roth IRA Investors' Activity, 2007–2014

Contents

Executive Summary	1
Roth IRA Investors Had Only a Modest Reaction to Financial Stresses	1
Snapshot of Roth IRA Investors at Year-End 2014 Provides Additional Insight into Roth IRA Investors' Activities	2
<i>New Roth IRAs Often Are Created by Contributions</i>	2
<i>More Than Three in 10 Roth IRA Investors Make Contributions to Their Roth IRAs</i>	3
<i>Roth IRA Conversion Activity Responds to Rule Changes</i>	3
<i>Few Roth IRA Investors Have Rollovers</i>	3
<i>Few Roth IRA Investors Take Withdrawals</i>	3
<i>Roth IRA Balances Tend to Increase with Investor Age</i>	3
<i>Equity Holdings Figure Prominently in Roth IRAs</i>	3
Introduction	8
The Role of IRAs in U.S. Retirement Planning	8
Sources of IRA Data	9
The IRA Investor Database™	9
Research Agenda for This Report	10
Chapter 1: Roth IRA Investors in the Wake of the Financial Crisis	11
Financial and Regulatory Developments, 2007–2014	11
Changes in Roth IRA Assets	14
Changes in Consistent Individual Investors' Roth IRA Balances, 2007–2014	14
<i>Contribution Activity for Consistent Roth IRA Investors, 2008–2014</i>	16
<i>Conversion Activity for Consistent Roth IRA Investors, 2008–2014</i>	16
<i>Withdrawal Activity for Consistent Roth IRA Investors, 2008–2014</i>	19
<i>Equity Investing in Roth IRAs Before and After the Financial Crisis</i>	20
Changes in Consistent Individual Investors' Roth IRA Balances Between 2007 and 2014 by Investor Age	26

Chapter 2: Roth IRA Investors' Contribution Activity in 2014	29
Contributions Often Were the Source of New Roth IRAs in 2014.	29
Contributions to Roth IRAs	30
Contributions to Roth IRAs in 2014 by Investor Age	31
Roth IRA Contribution Amounts in 2014 by Investor Age	32
<i>Roth IRA Investors' Contribution Amounts Varied in 2014</i>	34
<i>Older Roth IRA Contributors Were More Likely to Contribute at the Limit in 2014</i>	35
Persistence in Contribution Activity Among Roth IRA Investors from 2013 to 2014	36
<i>Contributions at the Limit Tend to Persist</i>	36
Chapter 3: Roth IRA Investors' Conversion and Rollover Activity in 2014	39
Roth IRA Conversion Activity	39
Roth IRA Conversion Activity in 2014 by Investor Age	40
Roth IRA Conversion Amounts in 2014 by Investor Age	41
Conversions Tend to Have a Strong Positive Impact on Roth IRA Balances	42
Roth IRA Rollover Activity Is Rare	43
Chapter 4: Roth IRA Investors' Withdrawal Activity in 2014	45
Roth IRA Withdrawal Activity	45
Roth IRA Withdrawal Activity in 2014 by Investor Age	46
Roth IRA Withdrawal Amounts in 2014 by Investor Age	48
Chapter 5: Roth IRA Investors' Balances at Year-End 2014	49
Roth IRA Balances in 2014 by Investor Age	49
Distribution of Roth IRA Balances by Size in 2014	50
Chapter 6: Snapshots of Investments in Roth IRAs at Year-End 2007 and Year-End 2014	53
Investments in Roth IRAs in 2014 by Investor Age	54
Snapshots of Allocation to Equity Holdings Between 2007 and 2014	57
Appendix	61
Role of IRAs in U.S. Household Balance Sheet	61
The IRA Investor Database Contains a Comprehensive Cross Section of IRA Investors	61
Contributions Often Were the Source of New Roth IRAs in 2014.	64
Exposure to Equity Holdings Among Roth IRA Investors by Account Size	66
Notes	69
References	75

Figures

Executive Summary

Figure E.1: Roth IRA Investors Are Younger Than Traditional IRA Investors	4
Figure E.2: New Roth IRAs Often Are Opened with Contributions; New Traditional IRAs Often Are Opened with Rollovers	5
Figure E.3: Roth IRA Investors Rarely Take Withdrawals; Traditional IRA Investors Are Heavily Affected by RMDs.	6
Figure E.4: Roth IRA Assets Have a Higher Allocation to Equities.	6
Figure E.5: Roth IRA Investors Have Higher Concentration in Equity Holdings	7

Chapter 1: Roth IRA Investors in the Wake of the Financial Crisis

Figure 1.1: Financial Events and Changing Rules Surrounding Roth IRAs, 2007–2015	12
Figure 1.2: Roth IRA Assets and Flows	13
Figure 1.3: Domestic Stock and Bond Market Total Return Indexes.	15
Figure 1.4: Factors Influencing Changes in Consistent Individual Investors' Roth IRA Balances, 2008–2014	17
Figure 1.5: Contribution Activity for Consistent Roth IRA Investors, 2008–2014	18
Figure 1.6: Withdrawal Activity for Consistent Roth IRA Investors, 2008–2014	20
Figure 1.7: Equity Holdings Account for the Majority of Assets in Roth IRAs	21
Figure 1.8: Changes in Concentration of Consistent Roth IRA Investors' Equity Holdings Between 2007 and 2014.	23
Figure 1.9: Changes in Zero Allocation to Equity Holdings Among Consistent Roth IRA Investors Between 2007 and 2014	24
Figure 1.10: Changes in 100 Percent Allocation to Equity Holdings Among Consistent Roth IRA Investors Between 2007 and 2014	25
Figure 1.11: Roth IRA Balances Among Consistent Roth IRA Investors from 2007 Through 2014	27
Figure 1.12: Roth IRA Balances of Consistent Roth IRA Investors Between 2007 and 2014 by Investor Age	28

Chapter 2: Roth IRA Investors' Contribution Activity in 2014

Figure 2.1:	Paths to Roth IRA Ownership Changed as Tax Rules Changed	30
Figure 2.2:	Roth IRA Contribution Rates	31
Figure 2.3:	Contribution Activity of Roth IRA Investors in 2014 by Investor Age	32
Figure 2.4:	Roth IRA Contribution Amounts in 2014 by Investor Age	33
Figure 2.5:	Traditional and Roth IRA Contribution Limits Set by the Internal Revenue Code, 2001–2016.	33
Figure 2.6:	Nearly Four in 10 Roth IRA Contributors Contributed at the Limit in Tax Year 2014	34
Figure 2.7:	Older Roth IRA Contributors Were More Likely to Contribute at the Limit in Tax Year 2014.	35
Figure 2.8:	Most Roth IRA Investors at the Limit in Tax Year 2013 Continued to Contribute at the Limit in Tax Year 2014	37

Chapter 3: Roth IRA Investors' Conversion and Rollover Activity in 2014

Figure 3.1:	Roth IRA Investors' Conversion Activity Responds to Tax Law Changes	40
Figure 3.2:	Conversion Activity of Roth IRA Investors in 2014 by Investor Age.	41
Figure 3.3:	Roth IRA Investors with Conversions in 2014 by Investor Age	42
Figure 3.4:	Recent Conversions Provide a Significant Boost to Roth IRA Balances	43
Figure 3.5:	Very Few Roth IRA Investors Have Rollovers.	44

Chapter 4: Roth IRA Investors' Withdrawal Activity in 2014

Figure 4.1:	Withdrawal Activity of Roth IRA Investors	46
Figure 4.2:	Withdrawal Activity of Roth IRA Investors in 2014 by Investor Age	47
Figure 4.3:	Roth IRA Withdrawals in 2014 by Investor Age.	48

Chapter 5: Roth IRA Investors' Balances at Year-End 2014

Figure 5.1:	Roth IRA Balances in 2014 Tended to Increase with Investor Age.	50
Figure 5.2:	Roth IRA Balances in 2014 by Investor Age.	51

Chapter 6: Snapshots of Investments in Roth IRAs at Year-End 2007 and Year-End 2014

Figure 6.1:	Equity Holdings Figure Prominently in Roth IRA Investments.	54
Figure 6.2:	Investments in Roth IRAs in 2014 by Investor Age	55
Figure 6.3:	Number of Target Date Funds Owned by Roth IRA Investors in 2014	56
Figure 6.4:	Share of Roth IRA Balances Allocated to Equity Holdings Has Declined Since 2007.	58
Figure 6.5:	Exposure to Equity Holdings Has Declined Among Roth IRA Investors Between 2007 and 2014	59

Appendix

Figure A.1:	Role of IRAs in U.S. Household Balance Sheet	62
Figure A.2:	The IRA Investor Database Covers All IRA Types.	63
Figure A.3:	Roth IRA Investors Represent a Wide Cross Section of Age Groups	64
Figure A.4:	Sources of New Roth IRAs in 2014 by Investor Age	65
Figure A.5:	Exposure to Equity Holdings Among Roth IRA Investors by Account Size, 2007 and 2014	67

The IRA Investor Profile: Roth IRA Investors' Activity, 2007–2014

Sarah Holden, ICI Senior Director of Retirement and Investor Research, and Daniel Schrass, ICI Associate Economist, prepared this report.

Executive Summary

First available in 1998, Roth individual retirement accounts (IRAs) had accumulated \$660 billion in assets by year-end 2015. Congress created Roth IRAs to provide a contributory retirement savings vehicle on an after-tax (nondeductible) basis with qualified withdrawals distributed tax-free. Individuals also may invest in Roth IRAs through conversions—in a conversion, taxes are paid on assets in a non-Roth IRA that move into a Roth IRA. In 2010, income limits on conversion activity were lifted (with special tax treatment of conversions made in 2010 as well). Since 2006, direct rollovers from designated Roth accounts in employer-sponsored retirement plans to Roth IRAs have been permitted, and since 2008, rollovers from non-Roth employer-sponsored retirement plan accounts also have been allowed. Roth IRAs are managed by individuals, and policymakers are interested in how Roth IRA investors fared during and after the financial crisis and how they manage their Roth IRAs.

Analysis of the contribution, conversion, rollover, withdrawal, and asset allocation activity of 2.3 million consistent Roth IRA investors—those with accounts in every year from 2007 through 2014—can show how consistent Roth IRA investors fared during and after the financial crisis. In addition, analysis of a snapshot of 5.4 million Roth IRA investors in 2014 can provide more detailed insight into how individuals manage their Roth IRAs.

Roth IRA Investors Had Only a Modest Reaction to Financial Stresses

Contributions, Conversions, Rollovers, and Withdrawals. Consistent Roth IRA investors showed little reaction to the steep declines in stock values between October 2007 and March 2009, a recession (December 2007 to June 2009), and rising unemployment rates, though contribution

activity did decline a bit in the wake of the financial crisis. Forty-seven percent of consistent Roth IRA investors aged 25 or older in 2014 contributed to their Roth IRAs between tax year 2008 and tax year 2014, and more than three-quarters of them contributed in multiple years. Conversion activity increased in response to the change in eligibility, despite the adverse economic backdrop.¹ Rollover activity among Roth IRA investors is extremely rare. Withdrawal rates rose slightly between 2008 and 2014, but still only a very small fraction of Roth IRA investors took money out of their Roth IRAs.

Asset Allocation. From 2007 to 2014, Roth IRA investors' allocation to equity holdings—equities, equity funds, and the equity portion of balanced funds—edged down, on average, although some of the change merely reflects market movement rather than investor rebalancing. For example, consistent Roth IRA investors aged 25 to 59 in 2014 held 85 percent of their Roth IRA assets in equity holdings at year-end 2007, and 83 percent of their Roth IRA assets were invested in equity holdings at year-end 2014. Between year-end 2007 and year-end 2014, few Roth IRA investors changed to or from equity concentrations of zero or 100 percent of their Roth IRA balances. Half of consistent Roth IRA investors had their Roth IRA balances entirely invested in equity holdings at year-end 2007, and that share decreased between year-end 2007 and year-end 2014, to 43 percent.

Account Balances. The movement of Roth IRA balances reflected the impact of investment returns, which relate to asset allocations; investors' contribution, conversion, rollover, and withdrawal activity; and the rules governing Roth IRAs. Consistent Roth IRA investors in all age groups saw their account balances increase on average between year-end 2007 and year-end 2014. Although account balances fell considerably following the stock market decline in 2008, the average Roth IRA balance for consistent Roth IRA investors aged 25 to 69 in 2014 was higher at year-end 2009 than at year-end 2007. Traditional IRA investors, beginning at age 70½, become ineligible to make contributions and typically must begin to take withdrawals. In contrast, Roth IRA investors of the same age may contribute to their Roth IRAs and typically are not subject to required minimum distributions (RMDs).² The average Roth IRA balance for consistent Roth IRA investors aged 70 or older surpassed the year-end 2007 level by year-end 2010.

Snapshot of Roth IRA Investors at Year-End 2014 Provides Additional Insight into Roth IRA Investors' Activities

It also is possible to analyze a snapshot of all Roth IRA investors in the database in any given year. This report primarily focuses on the 5.4 million Roth IRA investors in 2014.

New Roth IRAs Often Are Created by Contributions

Investors open Roth IRAs primarily through contributions. In 2014, nearly three-quarters of new Roth IRAs were opened exclusively with contributions.

More Than Three in 10 Roth IRA Investors Make Contributions to Their Roth IRAs

In any given year, more than three in 10 Roth IRA investors contribute to their Roth IRAs. On average, in recent years, estimates suggest that about \$18 billion of contributions flowed into Roth IRAs per year. In tax year 2014, 31.8 percent of Roth IRA investors aged 18 or older contributed to their Roth IRAs, and nearly four in 10 of these contributors did so at the legal limit. Roth IRA investors display persistence in their contribution activity from year to year. For example, nearly 70 percent of Roth IRA investors who contributed at the limit in tax year 2013 did so again in tax year 2014.

Roth IRA Conversion Activity Responds to Rule Changes

Few Roth IRA investors made conversions into their Roth IRAs, but conversion activity picked up in 2010 when income limits on conversions were lifted and taxpayers could choose to pay the taxes on 2010 conversions in 2011 and 2012. In 2010, more than 5 percent of Roth IRA investors made conversions, up from less than 2 percent in recent prior years. Between 2011 and 2014, Roth conversion activity declined again, to about 2.6 percent—during this time, there were no income restrictions on conversions, but Roth investors no longer had the special tax payment option. Roth IRAs with recent conversions tend to have larger balances than those without conversions, particularly among older Roth IRA investors.

Few Roth IRA Investors Have Rollovers

In any given year, fewer than 2 percent of Roth IRA investors made rollovers.

Few Roth IRA Investors Take Withdrawals

Withdrawals are rare among Roth IRA investors. Four percent of Roth IRA investors took withdrawals in 2014. Unlike traditional IRAs, Roth IRAs have a five-year holding period but do not require distributions to start after the investor turns 70½.³ Similar to traditional IRAs, withdrawals taken from Roth IRAs before the investor reaches age 59½ may incur a penalty, unless an exception applies. Only about 4 percent of Roth IRA investors younger than 60 took withdrawals in 2014, and only about 6 percent of Roth IRA investors aged 60 or older took withdrawals.

Roth IRA Balances Tend to Increase with Investor Age

Roth IRA balances tended to increase with investor age and vary within investor age groups in 2014. More than half of Roth IRA investors aged 18 to 24 had balances less than \$5,000, compared with only about 12 percent of Roth IRA investors aged 75 or older.

Equity Holdings Figure Prominently in Roth IRAs

Roth IRAs hold a range of investments, with the largest share of Roth IRA assets invested in equities and equity funds, both in aggregate and across investor age groups. The pattern of

investment holdings in Roth IRAs varies with investor age, typically as expected across the life cycle. For the most part, younger Roth IRA investors had a higher proportion of their accounts invested in equity holdings—equities, equity funds, and the equity portion of balanced funds—than did older investors. On average, Roth IRA investors younger than 50 had more than 80 percent of their Roth IRAs invested in equity holdings, while Roth IRA investors aged 60 or older had about 74 percent of their Roth IRAs invested in equity holdings.

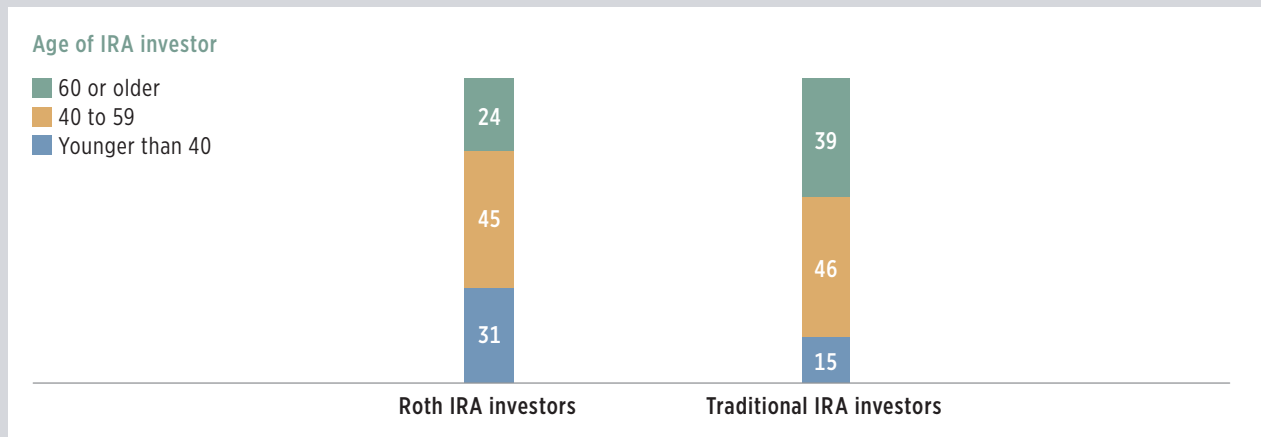
Roth IRA Investors Are Quite Different from Traditional IRA Investors

Roth IRA investors tend to be younger than traditional IRA investors. At year-end 2014, 31 percent of Roth IRA investors were younger than 40, compared with 15 percent of traditional IRA investors (Figure E.1). Only 24 percent of Roth IRA investors were 60 or older, compared with 39 percent of traditional IRA investors. This younger age distribution reflects, in part, the rules governing access to Roth IRAs, including income limits on contributions and (until 2010) on conversions, as well as the historically limited scope for rollover activity.

FIGURE E.1

Roth IRA Investors Are Younger Than Traditional IRA Investors

Percentage of IRA investors by type of IRA, year-end 2014



Note: The samples are 5.4 million Roth IRA investors aged 18 or older at year-end 2014 and 11.1 million traditional IRA investors aged 18 or older at year-end 2014.

Source: The IRA Investor Database™

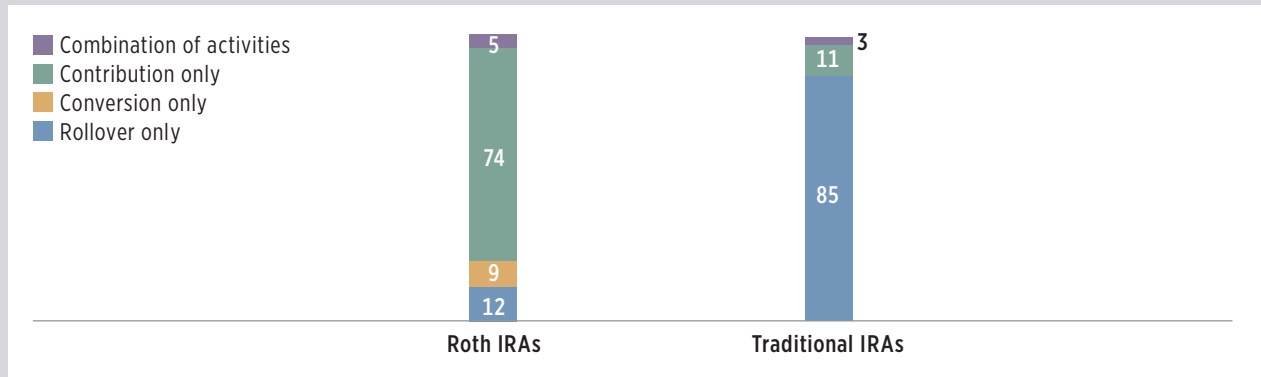
Traditional IRAs were originally created to provide workers with a contributory retirement savings account and a repository for rollovers,⁴ while the main focus of Roth IRAs was after-tax contribution activity and tax-free distribution after a suitable time in the account. With the proliferation of retirement accumulations that can be rolled over, whether from defined contribution accounts or as lump-sum distributions from defined benefit plans, most (85 percent of) new traditional IRAs in 2014 were opened only with rollovers (Figure E.2) and nearly half of traditional IRA-owning households in 2015 report having rollovers in their traditional IRAs.⁵ By contrast, rollovers play a less important role in Roth IRAs, and only 22 percent of Roth IRA-owning households in 2015 report that their Roth IRAs contain amounts that were initially rolled over from employer-sponsored retirement plans.⁶

Contribution activity is much more important to Roth IRA investors, with the majority of new Roth IRAs (74 percent) opened only with contributions (Figure E.2). In any given year, Roth IRA investors are more likely to make contributions than traditional IRA investors. In tax year 2014, about three in 10 Roth IRA investors (aged 18 or older) made contributions, compared with fewer than one in 10 traditional IRA investors (aged 25 to 69).⁷

FIGURE E.2

New Roth IRAs Often Are Opened with Contributions; New Traditional IRAs Often Are Opened with Rollovers

Percentage of new IRAs opened in 2014 by type of IRA



Note: New IRAs are accounts that did not exist in the IRA Investor Database in 2013 and were opened by one of the paths indicated in 2014. The calculation excludes IRAs that changed financial services firms. The samples are 0.3 million new Roth IRA investors aged 18 or older at year-end 2014 and 0.8 million new traditional IRA investors aged 25 to 74 at year-end 2014. Components may not add to 100 percent because of rounding.

Source: The IRA Investor Database™

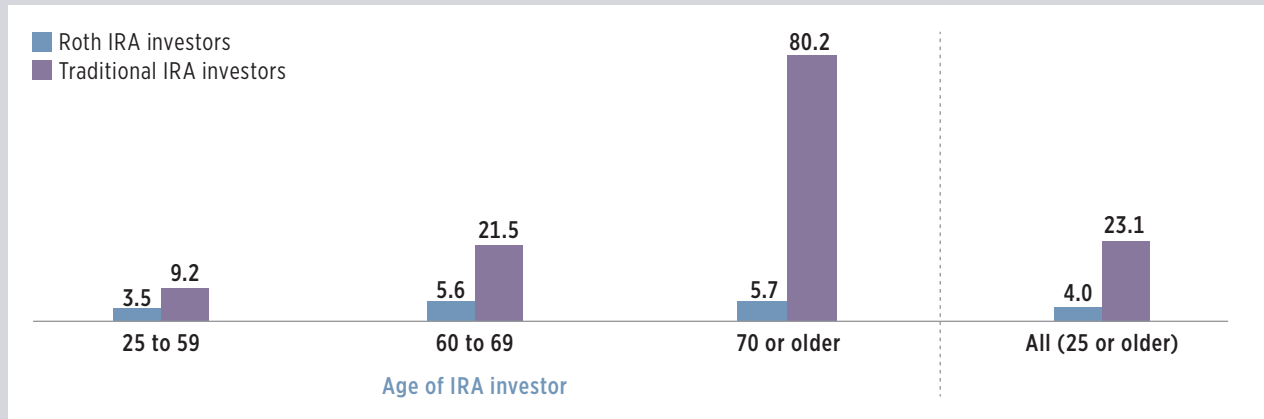
In contrast to traditional IRAs, which require investors aged 70½ or older to take RMDs, Roth IRAs have no RMDs (unless the Roth IRAs are inherited). As a result, withdrawal activity is much lower among Roth IRA investors. In 2014, 4 percent of Roth IRA investors aged 25 or older made withdrawals, compared with 23 percent of traditional IRA investors (Figure E.3).⁸ Early withdrawal penalties can apply to both Roth and traditional IRA investors aged 59½ or younger, and withdrawal activity is lower among investors younger than 60 compared with investors aged 60 or older.

Roth IRA assets are allocated more to equity holdings than are traditional IRA assets. At year-end 2014, 66 percent of Roth IRA assets were invested in equities and equity funds—mutual funds, exchange-traded funds (ETFs), and closed-end funds—compared with 55 percent of traditional IRA assets (Figure E.4). Allocation to target date funds and non-target date balanced funds was similar between Roth IRAs (19 percent) and traditional IRAs (18 percent), but Roth IRAs had less allocated to bonds and bond funds (7 percent) than traditional IRAs (15 percent). Roth IRAs also had lower allocation to money market funds (7 percent) than traditional IRAs (10 percent). Some of the differences in allocation reflect the different age distributions (Figure E.1). Another force at play is the impact of default rollover asset allocation to money market funds and deposits in traditional IRAs.⁹

FIGURE E.3

Roth IRA Investors Rarely Take Withdrawals; Traditional IRA Investors Are Heavily Affected by RMDs

Percentage of IRA investors with withdrawals by type of IRA and investor age, 2014



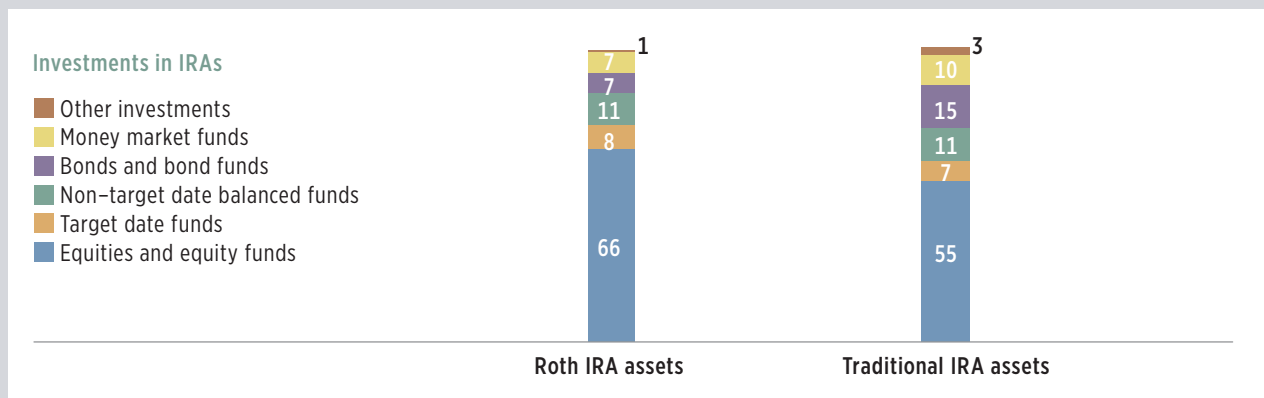
Note: The samples are 5.2 million Roth IRA investors aged 25 or older at year-end 2014 and 11.0 million traditional IRA investors aged 25 or older at year-end 2014.

Source: The IRA Investor Database™

FIGURE E.4

Roth IRA Assets Have a Higher Allocation to Equities

Percentage of IRA assets by type of IRA, year-end 2014



Note: See Figure 6.1 for descriptions of the investment categories. Percentages are dollar-weighted averages. The samples are 5.4 million Roth IRA investors aged 18 or older at year-end 2014 and 11.0 million traditional IRA investors aged 25 or older at year-end 2014. Components may not add to 100 percent because of rounding.

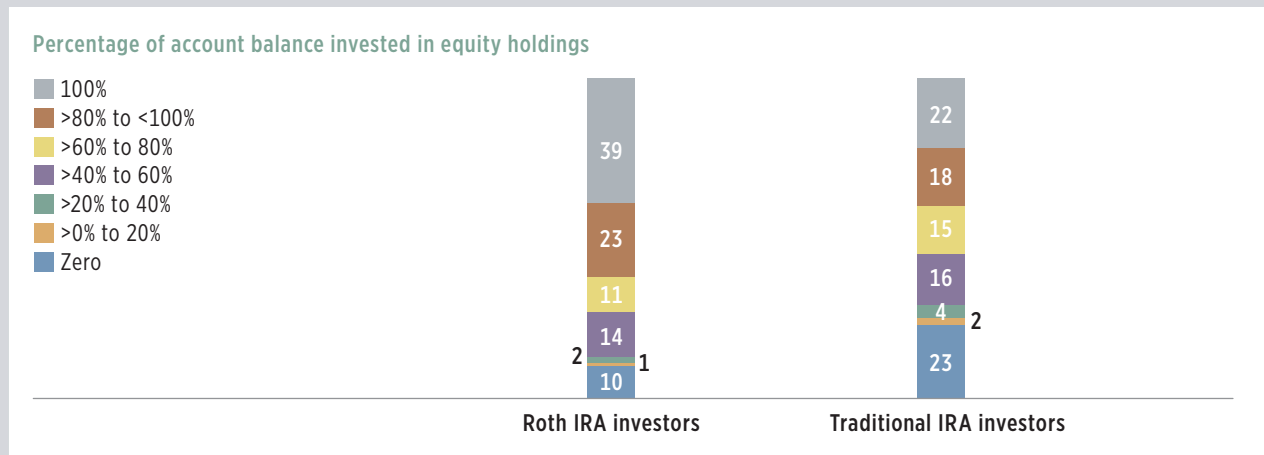
Source: The IRA Investor Database™

Roth IRA investors have higher concentrations in equity holdings than do traditional IRA investors. At year-end 2014, only 10 percent of Roth IRA investors had no equity holdings (equities, equity funds, and the equity portion of balanced funds), while 23 percent of traditional IRA investors held none (Figure E.5). At the other extreme, 39 percent of Roth IRA investors were 100 percent invested in equity holdings, compared with 22 percent of traditional IRA investors fully invested in equity holdings.

FIGURE E.5

Roth IRA Investors Have Higher Concentration in Equity Holdings

Percentage of IRA investors, year-end 2014



Note: Equity holdings are the sum of equities, equity funds, and the equity portion of target date and non-target date balanced funds. The samples are 5.4 million Roth IRA investors aged 18 or older at year-end 2014 and 11.0 million traditional IRA investors aged 25 or older at year-end 2014.

Source: The IRA Investor Database™

Some of this higher average concentration in equity holdings reflects the younger average age of Roth IRA investors compared with traditional IRA investors (Figure E.1) and the tendency of younger investors to hold higher concentrations in equity holdings. However, it also is the case that Roth IRA investors within any given age group tend to have higher concentrations in equity holdings. For example, more than half of traditional IRA investors aged 25 to 29 had no equity holdings in their traditional IRAs at year-end 2014,¹⁰ compared with only about 10 percent of Roth IRA investors aged 25 to 29 with no equity holdings in their Roth IRAs at year-end 2014 (see Figure 6.5). About one-third of traditional IRA investors aged 25 to 29 had more than 80 percent of their traditional IRAs invested in equity holdings at year-end 2014,¹¹ compared with about 70 percent of Roth IRA investors aged 25 to 29.

Sixty-four percent of traditional IRA investors with smaller accounts (a balance of \$5,000 or less at year-end 2014) had no equity holdings at year-end 2014,¹² reflecting in part the impact of default rollover investment rules; in contrast, only 21 percent of Roth IRA investors with smaller Roth IRA balances had no equity holdings (see Figure A.5 in the appendix). Even in larger accounts, where default rollover investment rules are likely to have less of an impact, Roth IRA investors tended to have higher allocations to equity holdings at year-end 2014 compared with traditional IRA investors. For example, at year-end 2014, more than three-fifths of Roth IRA investors with larger accounts (a balance of more than \$5,000 at year-end 2014) had more than 80 percent of their Roth IRAs invested in equity holdings, compared with about 45 percent of traditional IRA investors with larger accounts, who had more than 80 percent of their traditional IRAs invested in equity holdings.¹³

Introduction

The Role of IRAs in U.S. Retirement Planning

The Employee Retirement Income Security Act of 1974 (ERISA) created individual retirement accounts (IRAs).¹⁴ Forty-two years later, IRAs have become a significant component of U.S. households' retirement assets. All told, 40.2 million U.S. households, or 32.3 percent, owned one or more types of IRAs in mid-2015.¹⁵ Households held \$7.3 trillion in IRAs at year-end 2015, or more than one-quarter of the \$24.0 trillion in total U.S. retirement assets,¹⁶ and IRAs accounted for 10 percent of U.S. households' total financial assets (see Figure A.1 in the appendix). Traditional IRAs, the first type of IRA created, are the most common type.¹⁷ Over the years, policymakers have changed the rules governing traditional IRAs and introduced other types of IRAs. This report focuses on the Roth IRA, a nondeductible individual retirement savings account created by the Taxpayer Relief Act of 1997.¹⁸ At year-end 2015, Roth IRAs held \$660 billion and accounted for 9 percent of all IRA assets.¹⁹

Roth IRAs, first available in 1998, permit only after-tax (nondeductible) contributions. Though individuals 70½ or older may not contribute to traditional IRAs, Roth IRAs do not have that age restriction. Roth IRAs also can be created through conversions, a process by which non-Roth IRA assets are withdrawn and converted into Roth IRAs. In addition, direct rollovers from designated Roth accounts in retirement plans to Roth IRAs have been permitted since 2006 and direct rollovers of non-Roth qualified retirement plan accumulations into Roth IRAs have been permitted since 2008. Distributions of both principal and earnings generally are not subject to federal income tax if taken after the Roth IRA owner reaches age 59½, dies, or becomes disabled (provided the five-year holding period is met).²⁰ Distributions of principal before the Roth IRA owner reaches age 59½ generally are not subject to tax, but investment earnings may be subject to tax and possibly a 10 percent penalty if taken before age 59½, death, or disability. Exemptions to the early distribution penalty for a first-time home purchase, qualified education expenses, and the other exceptions allowed for traditional IRAs also apply to Roth IRA distributions. Unlike traditional IRAs, there are no RMDs during the Roth IRA holder's lifetime.²¹

Whether funded by contributions, conversions, or rollovers, Roth IRAs are managed by individuals, and asset allocation plays an important role in the Roth IRA returns and how they vary by investor. Thus, policymakers and researchers are seeking to better understand the asset allocation of Roth IRA balances across investors, as well as understanding how Roth IRA investors managed their Roth IRAs during and after the financial crisis. In addition, policymakers want to know how people manage these accounts, including how much they are withdrawing before retirement (leakage) and how they are tapping their Roth IRAs throughout retirement.

Sources of IRA Data

Researchers have relied primarily on household surveys and Internal Revenue Service (IRS) tax data to examine policy questions about IRAs. Researchers use several publicly available household surveys to analyze households' retirement savings,²² and ICI conducts two annual household surveys that provide information on IRA-owning households.^{23, 24} Though household surveys provide a comprehensive picture of household finances and activities—and can provide insights into the reasoning behind decisions—they can suffer from inaccurate respondent recall, which can cause data problems and reduce the level of detail that can be obtained on some financial assets or activities. In addition, because Roth IRAs are newer than traditional IRAs, sample sizes for Roth IRAs tend to be smaller than for traditional IRAs.²⁵

The IRS collects a rich array of information about IRAs, including contributions, assets, conversions to Roth IRAs, rollovers into IRAs, and withdrawals from IRAs, from a variety of tax returns (e.g., Form 1040) and information returns (e.g., Form 5498 and Form 1099-R). The IRS Statistics of Income Division publishes tabulations of these data and research reports using the data.²⁶ The tax data, however, do not have information about the types of assets that investors hold in their IRAs.

The IRA Investor Database™

To augment the existing survey information and tax data for IRAs, ICI embarked on a data collection effort—The IRA Investor Database—to examine administrative, or recordkept, data on IRAs. To date, this collection effort has gathered data on IRAs from 2007 through 2014. The IRA Investor Database contains account-level information from a wide range of mutual fund and insurance companies, which provided data for more than 16 million IRA investors in 2014. The database, which contains information about IRA asset levels, investments, contributions, conversions, rollovers, and withdrawals, provides a more complete picture of account-level holdings and activity for IRA investors. Throughout this report, the term *IRA investor* refers to a unique IRA investor at a given data provider.²⁷ The IRA Investor Database contains data on 16.3 million IRA investors at year-end 2014, of which 69 percent hold traditional IRAs, 33 percent hold Roth IRAs, 8 percent hold SIMPLE IRAs, and 5 percent own SEP or SAR-SEP IRAs (see Figure A.2 in the appendix).²⁸

Research Agenda for This Report

This report analyzes data on a group of consistent Roth IRA investors—those holding accounts with the same financial services provider at the end of each year from 2007 through 2014—drawn from The IRA Investor Database to gain insight into how Roth IRA investors fared during and after the financial crisis. In addition, it analyzes Roth IRA contributions, conversions, withdrawals, asset allocation, and account balances in 2014 by investor age.

After setting the scene in terms of financial developments and regulatory changes affecting Roth IRAs, chapter 1 analyzes the contribution, conversion, rollover, and withdrawal activity for 2.3 million consistent Roth IRA investors (those with accounts at the end of each year from 2007 through 2014). The chapter also explores changes in asset allocation and account balances among consistent Roth IRA investors.

The rest of the report focuses primarily on a snapshot of 5.4 million Roth IRA investors aged 18 or older at year-end 2014. Chapter 2 notes that the vast majority of new Roth IRAs opened in 2014 were opened with contributions. It examines contribution activity by investor age, exploring which Roth IRA investors had contributions and how many of them contributed at the maximum legal limit. Chapter 3 looks at how conversion activity varied by investor age in 2014, and briefly touches upon rollover activity, which is rare in Roth IRAs. Chapter 4 explores withdrawals, which very few Roth IRA investors take in any given year, likely discouraged by the five-year holding period and early withdrawal penalties. In addition, in contrast to traditional IRA investors, Roth IRA investors are not required to start distributions at age 70½ (unless the Roth IRA is inherited). Chapter 5 reports variation in Roth IRA balances by investor age. Chapter 6 compares the asset allocation of Roth IRA balances among cross sections of Roth IRA investors at year-end 2007 and year-end 2014, focusing on the changes in allocation to equity holdings by investor age.

CHAPTER 1

Roth IRA Investors in the Wake of the Financial Crisis

The IRA Investor Database contains data on millions of IRA investors from year-end 2007 through year-end 2014. It is possible to analyze snapshots, or cross sections, of IRA investors in any given year. In addition, one of the advantages of The IRA Investor Database is that it can show whether investor activities and behaviors are persistent or change from year to year.

This chapter features such an analysis, focusing on the 2.3 million Roth IRA investors who had accounts at the same financial services provider at the end of each year from 2007 through 2014. These Roth IRA investors will be referred to as *consistent Roth IRA investors*. They were aged 25 or older at year-end 2014 (and thus aged 18 or older at year-end 2007, the first year in the database). After reviewing the economic and regulatory influences on Roth IRAs between 2007 and 2014, the chapter examines how consistent Roth IRA investors fared in the wake of the financial crisis, looking at patterns of contribution, conversion, rollover, and withdrawal activities, as well as changes in asset allocation. The chapter also analyzes the movement of their Roth IRA balances from year-end 2007 to year-end 2014.

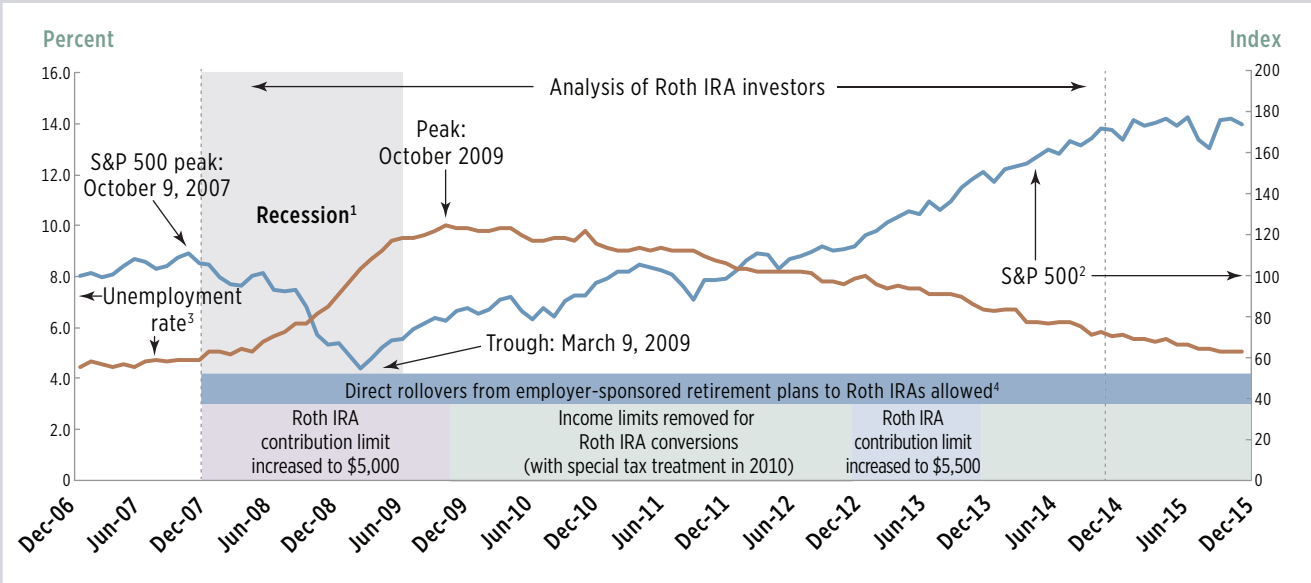
Financial and Regulatory Developments, 2007–2014

Between 2007 and 2014, the United States experienced two dramatic events: a major financial crisis and a deep recession. During that period, large-cap stocks contracted in value, falling 37.0 percent in 2008 (Figure 1.1), an annual drop exceeded only in 1931 when large-cap stock values fell 43.3 percent over the year.²⁹ Large-cap stocks peaked in value on October 9, 2007, and fell 55.3 percent to their record low, which occurred on March 9, 2009.³⁰ Bond market investors also saw rocky returns over this period, as interest rates on many nongovernment fixed-income securities rose, and corporate bond prices declined 22.2 percent between September 9, 2008, and October 17, 2008.³¹

The U.S. economy also contracted sharply, falling into recession between December 2007 and June 2009.³² The unemployment rate rose, peaking at 10.0 percent in October 2009, and disposable personal income fell.³³ The financial crisis and recession weakened household balance sheets during much of this period. In addition, housing values fell more than 25 percent between February 2007 and December 2011.³⁴ From 2010 through 2014, as the economy and financial sector began to recover, household income and net worth began to rise again.

FIGURE 1.1

Financial Events and Changing Rules Surrounding Roth IRAs, 2007–2015



¹ The National Bureau of Economic Research (NBER) dates the most recent recession from December 2007 to June 2009.
² The S&P 500 is an index of 500 stocks chosen for market size, liquidity, and industry group representation. The index is normalized to 100 in December 2006.
³ The unemployment rate is the number of unemployed individuals as a percentage of the labor force and has been seasonally adjusted.
⁴ Since 2006, direct rollovers from designated Roth accounts in employer-sponsored retirement plans to Roth IRAs have been permitted, and since 2008, rollovers from non-Roth employer-sponsored retirement plan accounts also have been allowed.
 Sources: Bureau of Labor Statistics, NBER, Standard and Poor's, and ICI summary of legislative changes

Roth IRA assets largely followed the movement of the stock market. Tracked on an annual basis, Roth IRA assets were \$232 billion at year-end 2007, but had fallen to \$177 billion at year-end 2008 despite contributions and conversions (Figure 1.2). Aggregate Roth IRA assets then rose to \$355 billion by year-end 2010, bolstered by \$65 billion in conversions. Roth IRA assets continued to increase, rising to \$630 billion at year-end 2014 and \$660 billion at year-end 2015.

Regulations governing Roth IRAs also changed between 2007 and 2014. In 2008, automatic adjustment for inflation increased the Roth IRA contribution limit for investors younger than 50 from \$4,000 to \$5,000 (Figure 1.1). For investors aged 50 or older, the limit rose to \$6,000 including catch-up contributions (see Figure 2.5). In 2010, the income limits on Roth conversions

FIGURE 1.2

Roth IRA Assets and Flows

Billions of dollars, 1998–2015

	Inflows			Outflows	Total assets ² Year-end
	Contributions	Rollovers ¹	Roth conversions	Withdrawals	
1998	\$8.6		\$39.3		\$56.8
1999	10.7		3.7		76.2
2000	11.6		3.2	\$4.7	77.6
2001	11.0		3.1	0.3	79.3
2002	13.2		3.3	1.2	77.6
2003	13.5 ^e		3.0 ^e	2.3 ^e	105.8 ^e
2004	14.7		2.8	1.9	139.9
2005	18.0		2.6	0.4	156.1
2006	18.7		2.8	0.4	196.1
2007	18.7		2.2	0.4	232.3
2008	18.2		3.7	3.7	176.6
2009	17.6	\$2.7	6.8	0.5	238.6
2010	18.6	7.8	64.8	0.6	354.9
2011	18.0	4.3	11.3	0.5	359.9
2012	18.7	4.8	18.1	4.1	438.9
2013	21.0	5.5	7.5	4.2	547.7
2014	N/A	N/A	N/A	N/A	630.0 ^e
2015	N/A	N/A	N/A	N/A	660.0 ^e

¹ Rollovers are primarily from employer-sponsored retirement plans.

² Total assets are the fair market value of assets at year-end.

^e Data are estimated.

N/A = not available

Sources: Investment Company Institute and Internal Revenue Service Statistics of Income Division

were lifted,³⁵ and taxpayers had the option of paying taxes due on amounts converted in 2010 over two years—2011 and 2012. In addition, 2008 marked the beginning of direct rollovers from non-Roth employer-sponsored retirement plan accounts into Roth IRAs.³⁶ In 2013, automatic adjustment for inflation increased the Roth IRA contribution limit for investors younger than 50 from \$5,000 to \$5,500 (Figure 1.1). For investors aged 50 or older, the limit rose to \$6,500 including catch-up contributions (see Figure 2.5).

Changes in Roth IRA Assets

Several factors affect the amount of Roth IRA assets investors hold:

- » contributions into Roth IRAs (+);
- » conversions of non-Roth IRA assets into Roth IRAs (+);³⁷
- » rollovers from employer-sponsored retirement plans into Roth IRAs (+);
- » distributions, or withdrawals, out of Roth IRAs (-);³⁸ and
- » returns on investments, which vary with asset allocation.

In a typical year, contributions in aggregate provide the largest inflows into Roth IRAs, running at an average of about \$19 billion a year, between 2008 and 2013 (Figure 1.2). A relatively new activity, rollovers account for only a small amount of inflows into Roth IRAs, averaging about \$5 billion a year since 2009. Roth conversions have tended to be minor, with the exception of 1998 and 2010, when special tax incentives were available.³⁹ The tax law change lifting income limits on Roth conversion activity starting in 2010 and providing special tax incentives in 2010 increased Roth conversion activity. Between 2009 and 2010, conversions to Roth IRAs increased nearly tenfold, from \$6.8 billion to \$64.8 billion.⁴⁰ Withdrawals are only a small drag on Roth IRA accumulations, because few Roth IRA investors take withdrawals.

Changes in Consistent Individual Investors' Roth IRA Balances, 2007–2014

When analyzing how investor account balances change over time, having a consistent sample is important. Comparing average account balances across year-end snapshots can lead to false conclusions. For example, the addition of a large number of new investors with smaller balances would pull down the average account balance. This could then be mistakenly described as an indication that balances are declining, but actually would reveal nothing about the experiences of individual investors. Because of this, the following analysis covers Roth IRA investors with account balances at the end of each year from 2007 to 2014.

To analyze changes in Roth IRA balances from year-end 2007 to year-end 2014, the flow activity of the Roth IRA investors from 2008 through 2014 needs to be understood. Although detailed information on the exact timing of flows into and out of the Roth IRA balances analyzed is not

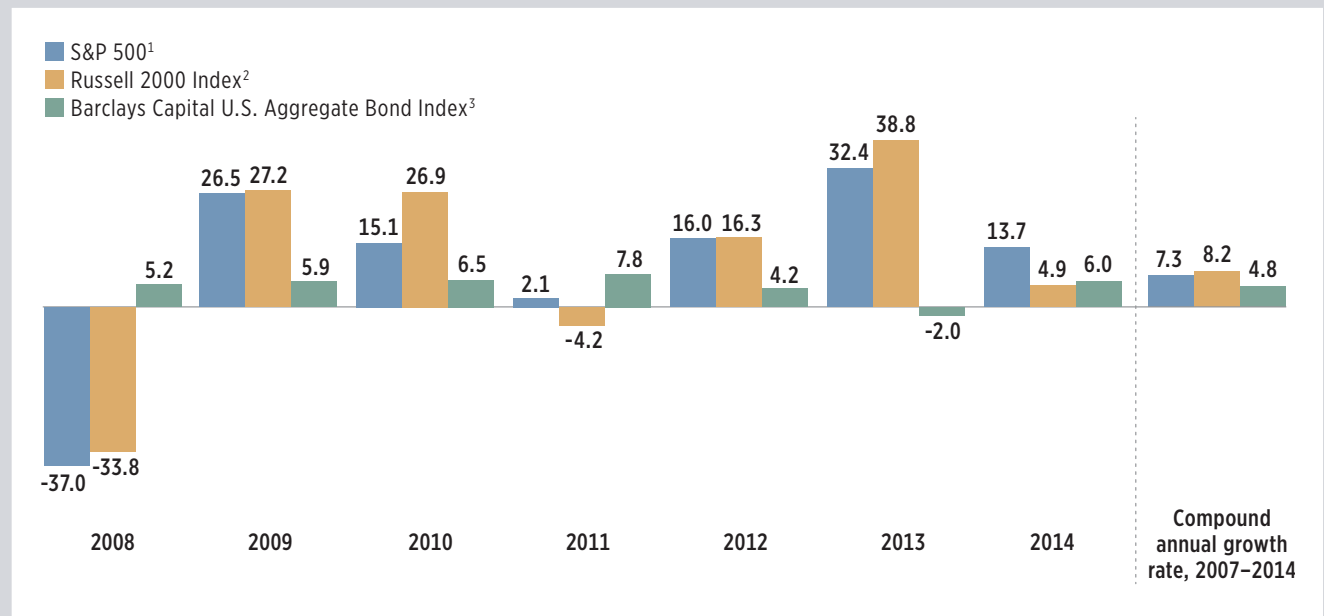
available, the presence of annual contributions, conversions, rollovers, or withdrawals can be tracked. Because Roth IRA investors younger than 59½ may be subject to penalties if they take withdrawals, they are analyzed as a group. Although all Roth IRA investors aged 59½ or older may withdraw without penalty (provided they meet the five-year holding period), the sample is divided into two additional groups based on age at year-end 2014: 60 to 69, and 70 or older. This enables comparison with traditional IRA investors, who must take withdrawals once they reach age 70½ or be subject to penalty. Contribution, conversion, rollover, and withdrawal activity is analyzed for these three groups of consistent Roth IRA investors.

Finally, investment returns affect the value of assets held in Roth IRAs and will vary depending upon the individual investor’s portfolio. Roth IRA investors’ concentrations in equity holdings are analyzed from year-end 2007 to year-end 2014. It is not possible to calculate rates of return specific to Roth IRA investors in the database. However, aggregate market return data indicate that from year-end 2007 to year-end 2014, the compound average annual return was 7.3 percent on large-cap equities, 8.2 percent on small-cap equities, and 4.8 percent on bonds (Figure 1.3).

FIGURE 1.3

Domestic Stock and Bond Market Total Return Indexes

Percent change, 2008–2014



¹ The S&P 500 is an index of 500 stocks chosen for market size, liquidity, and industry group representation.

² The Russell 2000 Index measures the performance of the 2,000 smallest U.S. companies (based on total market capitalization) included in the Russell 3000 Index (which tracks the 3,000 largest U.S. companies).

³ Formerly the Lehman Brothers U.S. Aggregate Bond Index, the Barclays Capital U.S. Aggregate Bond Index is composed of securities covering government and corporate bonds, mortgage-backed securities, and asset-backed securities (rebalanced monthly by market capitalization). The index’s total return consists of price appreciation/depreciation plus income as a percentage of the original investment.

Sources: Bloomberg, Barclays Global Investors, Frank Russell Company, and Standard & Poor’s

Contribution Activity for Consistent Roth IRA Investors, 2008–2014

Roth IRA contribution activity slowed a bit in the wake of the financial crisis. Though one might expect a significant reduction in contribution activity in times of financial stress, contribution activity declined only slightly among consistent Roth IRA investors from 2008 through 2014. For example, 22.8 percent of consistent Roth IRA investors aged 25 or older in 2014 made contributions in tax year 2014, while 32.7 percent of them made contributions to their Roth IRAs in tax year 2008, when they were aged 19 or older (Figure 1.4, first panel). The pattern is similar across age groups. For example, 19.4 percent of consistent Roth IRA investors aged 60 to 69 in 2014 made contributions in tax year 2014, while 30.5 percent of them made contributions to their Roth IRAs in tax year 2008, when they were aged 54 to 63 (Figure 1.4, third panel). Some of the decline could have resulted from Roth IRA investors getting older—perhaps moving them to higher incomes and out of eligibility to contribute.

Even during this economically stressful period, Roth IRA contribution activity persisted. For example, 46.7 percent of consistent Roth IRA investors aged 25 or older in 2014 made at least one contribution between tax years 2008 and 2014 (Figure 1.5, first panel). Among those contributing during that period, 25.7 percent contributed in all seven years, 9.4 percent contributed in six of the seven years, another 9.0 percent contributed in five of the seven years, 9.5 percent contributed in four of the seven years, 11.0 percent contributed in three of the seven years, and 14.0 percent contributed in two of the seven years. Persistent contribution activity was highest among consistent Roth IRA investors aged 25 to 59 in 2014. However, older consistent Roth IRA investors (aged 60 to 69) also had repeat contribution activity, with 45.7 percent making at least one contribution between tax years 2008 and 2014 (Figure 1.5, third panel). Among Roth IRA investors aged 60 to 69 who were contributing, 20.4 percent did so in all seven years. These repeat contributions occurred despite the recession (Figure 1.1) and poor stock market performance during part of the period (Figure 1.3).

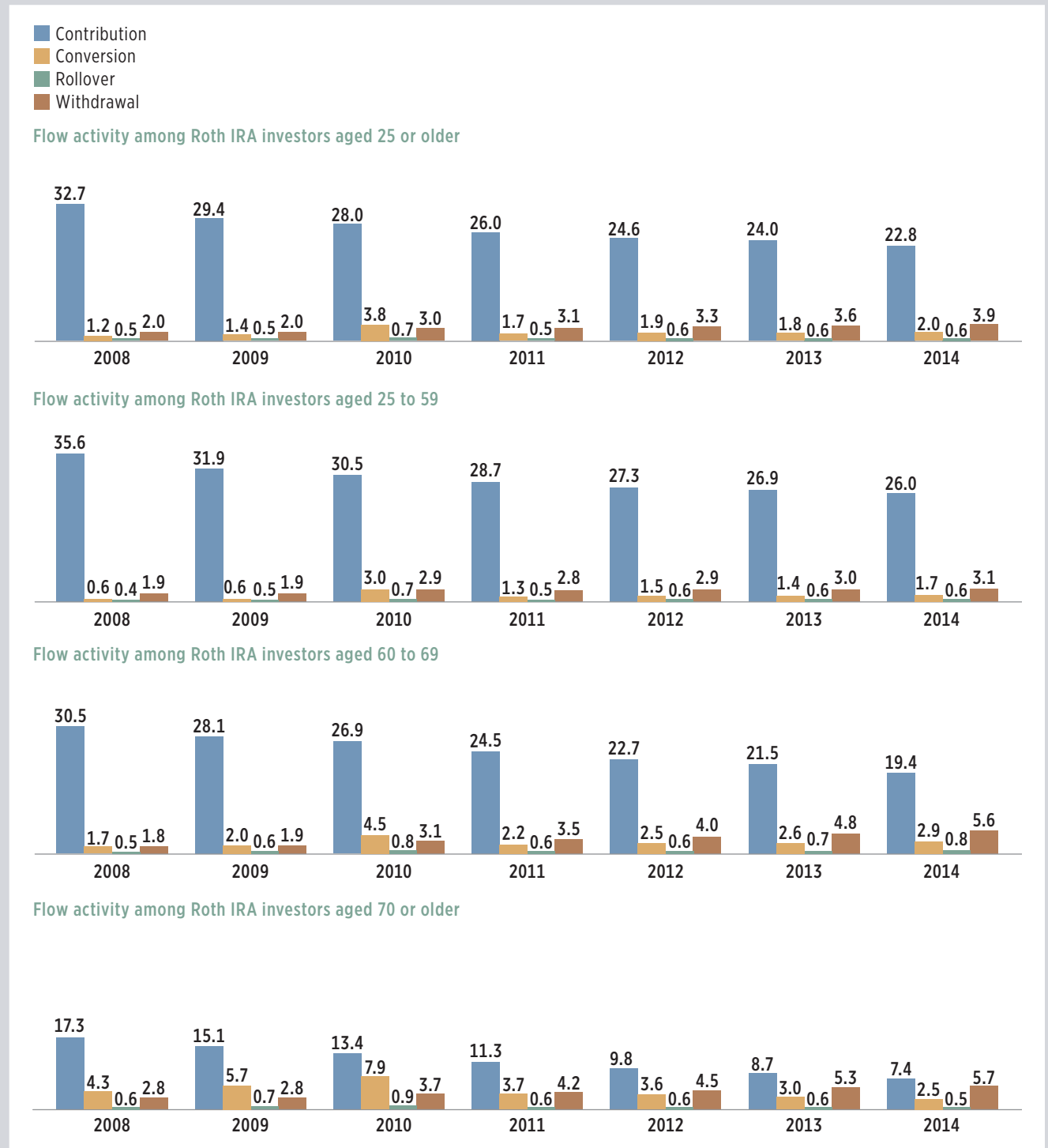
Conversion Activity for Consistent Roth IRA Investors, 2008–2014

A Roth IRA conversion occurs when assets in a non-Roth IRA are transferred to a Roth IRA or redesignated as a Roth IRA.⁴¹ Generally the assets converted are taxable in the year of the conversion. Conversion activity tends to increase when the taxes owed on the amounts converted can be spread over multiple years (Figure 1.2). For example, 3.8 percent of consistent Roth IRA investors aged 25 or older in 2014 made conversions into their Roth IRAs in 2010 (when they were 21 or older), compared with a little more than 1 percent in 2008 and 2009 and about 2 percent in 2011, 2012, 2013, and 2014 (Figure 1.4, first panel).⁴² A similar pattern is observed across the 25 to 59 and 60 to 69 age groups, although older Roth IRA investors tended to have higher levels of conversion activity in most years compared with younger ones (Figure 1.4; second, third, and fourth panels). Conversion activity for consistent Roth IRA investors aged 70 or older rose from 4.3 percent making conversions in 2008 (when they were 64 or older) to 7.9 percent in 2010 before falling back to 3.7 percent in 2011, 3.6 percent in 2012, 3.0 percent in 2013, and 2.5 percent in 2014 (Figure 1.4, fourth panel).

FIGURE 1.4

Factors Influencing Changes in Consistent Individual Investors' Roth IRA Balances, 2008–2014

Percentage of Roth IRA investors with account balances at year-end 2007–2014



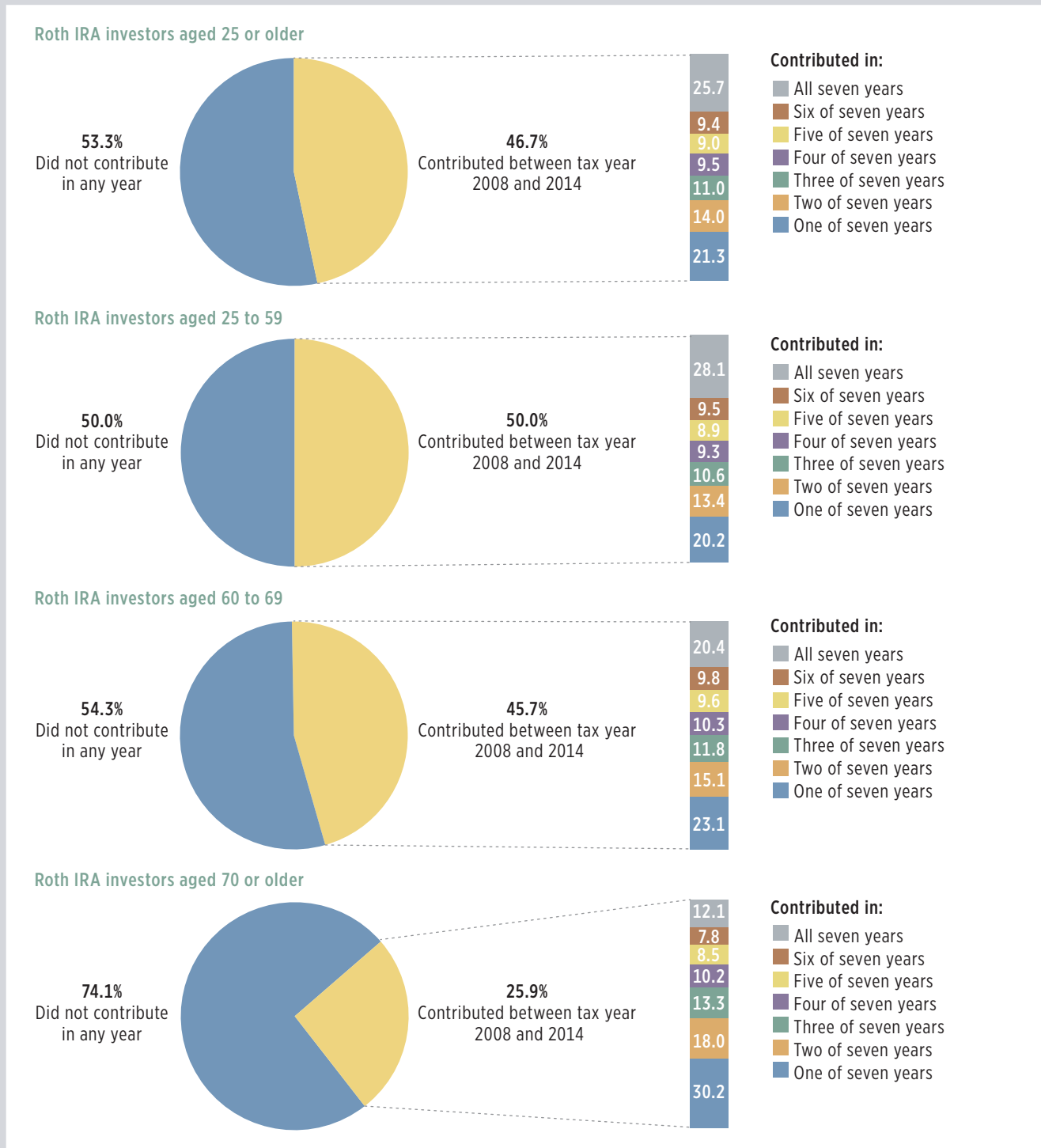
Note: The sample is 2.3 million Roth IRA investors aged 25 or older in 2014 with an account balance from year-end 2007 through year-end 2014. Age is based on the age of the Roth IRA investor in 2014. Activity is for the tax year indicated.

Source: The IRA Investor Database™

FIGURE 1.5

Contribution Activity for Consistent Roth IRA Investors, 2008–2014

Percentage of Roth IRA investors with account balances at year-end 2007–2014



Note: The samples are 2.3 million Roth IRA investors aged 25 or older in 2014 (1.6 million aged 25 to 59, 0.5 million aged 60 to 69, and 0.2 million aged 70 or older) all holding Roth IRA balances from year-end 2007 through year-end 2014. Age is based on the age of the Roth IRA investor in 2014. Components may not add to 100 percent because of rounding.

Source: The IRA Investor Database™

Rollovers. Direct rollovers from designated Roth accounts in employer-sponsored retirement plans to Roth IRAs have been permitted since 2006. Before 2008, Roth IRAs generally were not eligible for direct rollovers from non-Roth employer-sponsored retirement plan accounts. The Pension Protection Act of 2006 allowed direct rollovers from non-Roth employer-sponsored plan accounts to Roth IRAs beginning in 2008.⁴³ Less than 1 percent of consistent Roth IRA investors made rollovers in any study year, regardless of age group (Figure 1.4).

Withdrawal Activity for Consistent Roth IRA Investors, 2008–2014

If a withdrawal is made from a Roth IRA within five years of the first contribution or made before age 59½, the investment return portion of the withdrawal is generally subject to income tax and may be subject to a 10 percent penalty. For both traditional and Roth IRAs, the 10 percent penalty does not apply to withdrawals made in cases of death or disability; if used for certain medical expenses, first-time homebuyer expenses, qualified higher-education expenses, health insurance expenses of unemployed individuals; or as part of a series of substantially equal periodic payments (SEPPs) made for the life or over the life expectancy of the individual.⁴⁴ In addition, provided the five-year holding period is satisfied, the investment returns portion of withdrawals made before age 59½ from a Roth IRA in cases of death, disability, or qualified first-time homebuyer expenses are not subject to income tax. In contrast to traditional IRAs, Roth IRAs are not subject to RMDs during the account holder's lifetime.⁴⁵

Very few consistent Roth IRA investors took withdrawals in any year during the study period. Few Roth IRA investors younger than 60 took withdrawals in any given year, likely reflecting, in part, the early withdrawal penalty that may apply. This also was the case among the consistent group of Roth IRA investors aged 25 to 59 at year-end 2014. In 2008, 1.9 percent took withdrawals when they were aged 19 to 53 (Figure 1.4, second panel). Withdrawal activity edged up a bit in 2010, 2011, 2012, 2013, and 2014 compared with the earlier years. In 2010, 2.9 percent of these consistent Roth IRA investors took withdrawals (when they were aged 21 to 55), 2.8 percent took withdrawals in 2011 (when they were aged 22 to 56), 2.9 percent took withdrawals in 2012 (when they were aged 23 to 57), 3.0 percent took withdrawals in 2013 (when they were aged 24 to 58), and 3.1 percent took withdrawals in 2014.

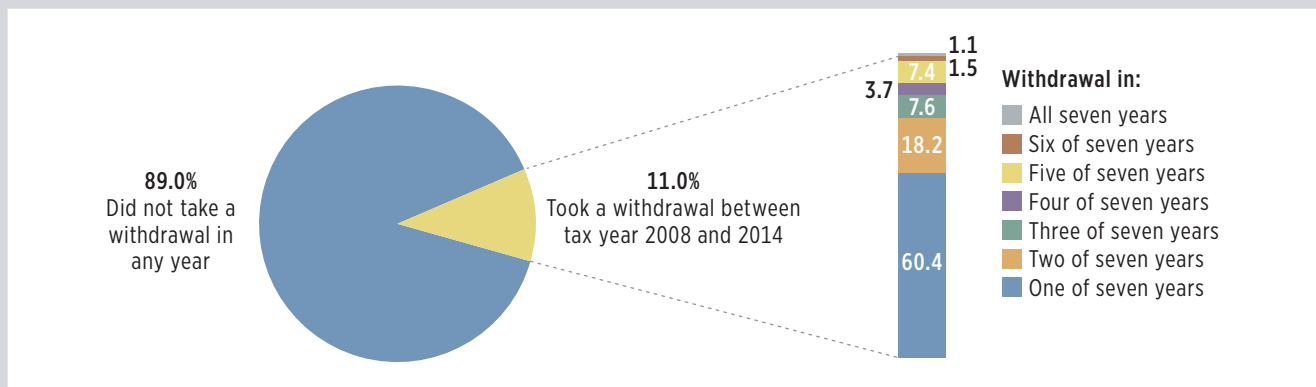
The pattern of withdrawal activity holds for Roth IRA investors aged 60 to 69 in 2014. In 2008, 1.8 percent of this group took withdrawals, when they were aged 54 to 63 (Figure 1.4, third panel). In 2009, 1.9 percent of this group took withdrawals, when they were aged 55 to 64. Withdrawal activity edged up further between 2010 and 2014, rising to 5.6 percent in 2014. Withdrawals for the group aged 70 or older in 2014 also followed a similar pattern (Figure 1.4, fourth panel): 2.8 percent took withdrawals in 2008 and 2.8 percent took withdrawals in 2009. Withdrawal activity then rose over the next five years to 5.7 percent in 2014.

Withdrawal activity is rare among Roth IRA investors, and financial stresses appear to have caught up with only a small number of Roth IRA investors in the wake of the financial crisis. Among consistent Roth IRA investors aged 25 or older in 2014 (those with accounts at the end of each year from year-end 2007 to year-end 2014), 11.0 percent took withdrawals in at least one year between 2008 and 2014 (Figure 1.6). Among those taking withdrawals, 60.4 percent only took withdrawals in one of the seven years (2008 through 2014), and 18.2 percent only took withdrawals in two of the seven years.

FIGURE 1.6

Withdrawal Activity for Consistent Roth IRA Investors, 2008–2014

Percentage of Roth IRA investors with account balances at year-end 2007–2014



Note: The sample is 2.3 million Roth IRA investors aged 25 or older in 2014 with Roth IRA balances from year-end 2007 through year-end 2014. Components may not add to 100 percent because of rounding.

Source: The IRA Investor Database™

Equity Investing in Roth IRAs Before and After the Financial Crisis

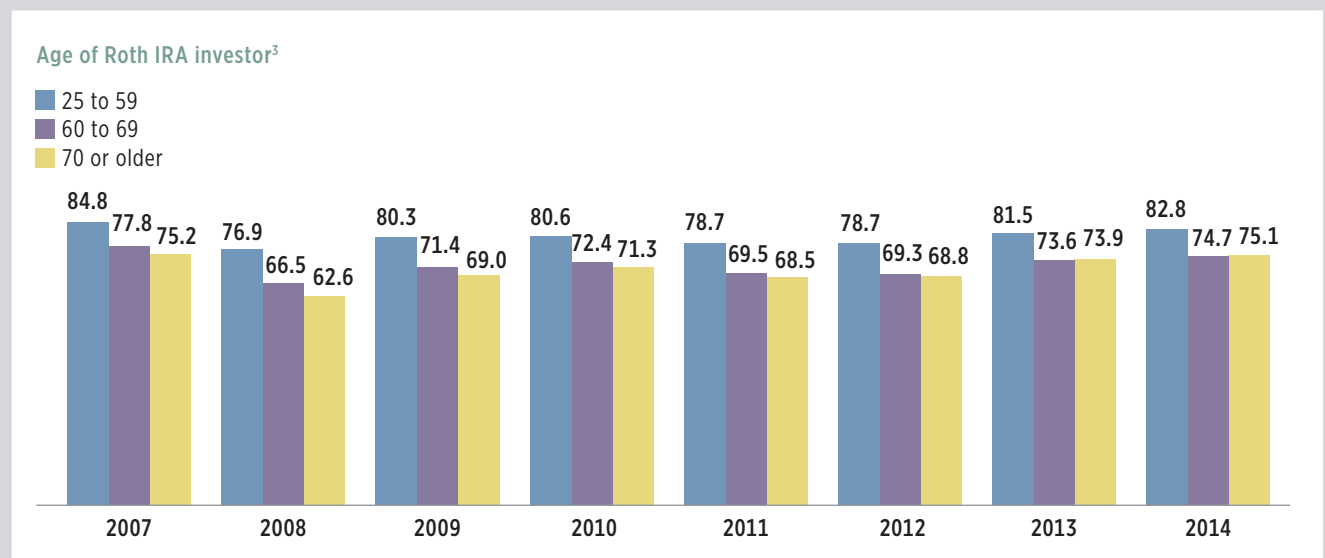
Because, on average, the majority of Roth IRA assets are invested in equity holdings, the movement of the stock market had a large impact on Roth IRA balances between year-end 2007 and year-end 2014. For example, on average, the sample of consistent Roth IRA investors, when they were aged 18 to 52 at year-end 2007, had 84.8 percent of their Roth IRA assets invested in equity holdings—equities, equity funds, and the equity portion of balanced funds (Figure 1.7). As stock values declined in 2008 (Figures 1.1 and 1.3), equity holdings fell to 76.9 percent of this group’s Roth IRA assets at year-end 2008 (Figure 1.7). As stock values moved up in 2009 and 2010, equity holdings rose to 80.6 percent of this group’s Roth IRA assets by year-end 2010. At year-end 2011, with relatively flat stock prices for the year, this group’s equity holdings fell to 78.7 percent of their Roth IRA assets, and remained at that level at year-end 2012. At year-end 2013, when the group was aged 24 to 58, their equity holdings edged up to 81.5 percent. At year-end 2014, this group had 82.8 percent of their Roth IRA assets invested in equity holdings.

Older Roth IRA investors generally had lower average allocations to equity holdings, although equity holdings represented significant shares of their assets over the entire period (Figure 1.7). The older investors' average allocation to equity holdings also mirrored the stock market movement. For example, consistent Roth IRA investors aged 60 to 69 in 2014 had 77.8 percent of their Roth IRA assets invested in equity holdings at year-end 2007, when they were aged 53 to 62. Their average allocation to equity holdings fell to 66.5 percent at year-end 2008, before rising to 72.4 percent in 2010, then falling to 69.5 percent at year-end 2011 and 69.3 percent at year-end 2012. At year-end 2013, when the group was aged 59 to 68, their equity holdings increased to 73.6 percent. At year-end 2014, consistent Roth IRA investors aged 60 to 69 had 74.7 percent of their Roth IRA assets invested in equity holdings.

FIGURE 1.7

Equity Holdings Account for the Majority of Assets in Roth IRAs

Percentage of Roth IRA assets¹ invested in equity holdings² by investor age;³ year-end, 2007–2014



¹Percentages are dollar-weighted averages.

²Equity holdings include equities, equity funds, and the equity portion of balanced funds.

³Age is based on the age of the Roth IRA investor in 2014.

Note: Consistent Roth IRA investors are 2.3 million Roth IRA investors aged 25 or older in 2014 with an account balance from year-end 2007 through year-end 2014. Funds include mutual funds, closed-end funds, and ETFs.

Source: The IRA Investor Database™

Movement in the share of equity holdings in Roth IRA investors' accounts results from changes in stock values, in addition to reallocation activity by investors. Although information on specific trading activity of Roth IRA investors is not available in the database, activity into or out of zero or 100 percent equity holdings at year-end can be observed.

On these equity concentration measures, there was little activity among Roth IRA investors between year-end 2007 and year-end 2014. For example, analyzing consistent Roth IRA investors aged 25 to 59 at year-end 2014, the data show that 0.4 percent, on net, moved to a zero equity holding allocation—8.8 percent of this group had no equity holdings at year-end 2007 and 9.2 percent had no equity holdings at year-end 2014 (Figure 1.8, upper panel). This net change reflects 3.1 percent of these Roth IRA investors moving from zero equity holdings to at least some, 3.5 percent moving from some to zero, and 5.7 percent sticking with zero holdings in both 2007 and 2014 (Figure 1.9). Older Roth IRA investors displayed slightly higher reallocation activity toward zero equity holdings, but some of their activity could have come in anticipation of retirement rather than in response to financial market movements. Indeed, household survey information indicates that households anticipate rebalancing their portfolios as they age.⁴⁶

Half of consistent Roth IRA investors had their entire Roth IRA balances invested in equity holdings at year-end 2007, but that share decreased to 43.3 percent at year-end 2014 (Figure 1.10). To be 100 percent invested in equity holdings, the Roth IRA investor would have allocated their full Roth IRA balance to equities or equity funds.⁴⁷ Analyzing consistent Roth IRA investors aged 25 to 59 at year-end 2014, the data show that 6.6 percent, on net, moved away from a 100 percent equity holding allocation—51.2 percent of this group at year-end 2007 and 44.5 percent at year-end 2014 were 100 percent invested in equity holdings (Figure 1.8, lower panel). This net change reflects 10.3 percent moving away from the 100 percent allocation to something less, 3.7 percent moving to a 100 percent allocation, and 40.9 percent sticking with 100 percent equity holdings in both 2007 and 2014 (Figure 1.10). Roth IRA investors aged 60 to 69 in 2014 displayed slightly higher reallocation activity away from 100 percent equity holdings, but again, some of their activity may have resulted simply from reallocation in anticipation of retirement rather than in response to the financial market movements.⁴⁸

FIGURE 1.8

Changes in Concentration of Consistent Roth IRA Investors' Equity Holdings Between 2007 and 2014



¹Equity holdings include equities, equity funds, and the equity portion of balanced funds. Funds include mutual funds, closed-end funds, and ETFs.

²Age is based on the age of the Roth IRA investor in 2014.

Note: Consistent Roth IRA investors are 2.3 million Roth IRA investors aged 25 or older in 2014 with an account balance from year-end 2007 through year-end 2014.

Source: The IRA Investor Database™

FIGURE 1.9

Changes in Zero Allocation to Equity Holdings Among Consistent Roth IRA Investors Between 2007 and 2014

Percentage of Roth IRA investors by age; year-end, 2007 and 2014

Age	Zero in 2007	Moved away from zero by 2014	Remained at zero	Moved to zero by 2014	Net change	Zero in 2014
25 to 29	10.5	-5.7	4.9	2.0	-3.7	6.9
30 to 34	9.6	-4.3	5.3	2.7	-1.5	8.1
35 to 39	8.5	-3.1	5.4	3.1	0.0	8.5
40 to 44	8.0	-2.7	5.3	3.5	0.8	8.8
45 to 49	8.0	-2.5	5.5	3.6	1.1	9.1
50 to 54	8.8	-2.8	6.0	3.9	1.1	9.9
55 to 59	9.6	-3.3	6.3	4.3	1.0	10.6
60 to 64	10.4	-3.8	6.6	4.9	1.1	11.5
65 to 69	11.0	-4.2	6.8	5.2	1.0	12.0
70 to 74	11.2	-4.3	6.9	4.8	0.4	11.7
75 or older	11.3	-3.9	7.5	4.5	0.6	11.9
All	9.4	-3.4	6.0	4.0	0.6	10.0
25 to 59	8.8	-3.1	5.7	3.5	0.4	9.2
60 to 69	10.7	-4.0	6.7	5.0	1.1	11.7
70 or older	11.3	-4.1	7.1	4.6	0.5	11.8

Note: The sample is 2.3 million Roth IRA investors aged 25 or older in 2014 with an account balance from year-end 2007 through year-end 2014. Equity holdings include equities, equity funds, and the equity portion of balanced funds. Funds include mutual funds, closed-end funds, and ETFs.

Source: The IRA Investor Database™

FIGURE 1.10

Changes in 100 Percent Allocation to Equity Holdings Among Consistent Roth IRA Investors Between 2007 and 2014

Percentage of Roth IRA investors by age; year-end, 2007 and 2014

Age	100 percent in 2007	Moved away from 100 percent by 2014	Remained at 100 percent	Moved to 100 percent by 2014	Net change	100 percent in 2014
25 to 29	44.2	-8.9	35.3	4.1	-4.9	39.4
30 to 34	44.3	-9.8	34.6	4.0	-5.8	38.5
35 to 39	48.1	-10.1	38.0	3.8	-6.3	41.9
40 to 44	52.8	-10.0	42.9	3.6	-6.4	46.5
45 to 49	54.4	-9.9	44.5	3.5	-6.4	48.0
50 to 54	53.6	-10.5	43.1	3.5	-7.1	46.6
55 to 59	51.1	-11.6	39.5	3.8	-7.8	43.3
60 to 64	48.0	-12.5	35.5	4.1	-8.3	39.7
65 to 69	47.3	-12.6	34.7	4.7	-7.9	39.4
70 to 74	48.6	-11.7	36.8	5.0	-6.7	41.8
75 or older	48.7	-10.4	38.3	4.7	-5.7	42.9
All	50.2	-10.8	39.4	3.9	-6.9	43.3
25 to 59	51.2	-10.3	40.9	3.7	-6.6	44.5
60 to 69	47.7	-12.5	35.2	4.4	-8.1	39.5
70 or older	48.6	-11.1	37.5	4.8	-6.3	42.3

Note: The sample is 2.3 million Roth IRA investors aged 25 or older in 2014 with an account balance from year-end 2007 through year-end 2014. Equity holdings include equities, equity funds, and the equity portion of balanced funds. Funds include mutual funds, closed-end funds, and ETFs.

Source: The IRA Investor Database™

Changes in Consistent Individual Investors' Roth IRA Balances Between 2007 and 2014 by Investor Age

The impact of the financial crisis on consistent Roth IRA investors aged 25 or older in 2014—and their actions in response—varied by age. Though exposure to equity holdings, on average, was higher for younger Roth IRA investors, only a small share of Roth IRA investors of any age completely eschewed equity holdings between 2007 and 2014 (Figures 1.8, 1.9, and 1.10). Contribution activity edged back only a bit in the wake of the financial crisis (Figure 1.4). Conversion and rollover activity increased as a result of rule changes, and both can provide boosts to Roth IRA balances. Withdrawal activity edged up in 2010, 2011, 2012, 2013, and 2014 (Figures 1.4 and 1.6), although very few Roth IRA investors take withdrawals. Altogether, these forces combine to influence the balances held in Roth IRAs.

Roth IRA investors generally saw growth in their Roth IRA balances between year-end 2007 and year-end 2014. All told, the average Roth IRA balance among consistent Roth IRA investors aged 25 to 59 at year-end 2014 was \$35,450 at year-end 2014, more than double the year-end 2007 average balance of \$15,060 (Figure 1.11). The average Roth IRA balance among this group fell to \$10,860 in 2008, before rising to \$15,240 in 2009, \$19,560 in 2010, \$20,470 in 2011, \$24,450 at year-end 2012, \$31,450 at year-end 2013, and \$35,450 at year-end 2014. Movement in the average account balance is not as dramatic as the changes observed in the stock market because the majority of these investors had at least some non-equity investments in their Roth IRAs.⁴⁹ In addition, in any given year, about three in 10 had contributions, and fewer than one in 25 had withdrawals (Figure 1.4). Changes in the average account balance varied with investor age (Figure 1.12).

FIGURE 1.11

Roth IRA Balances Among Consistent Roth IRA Investors from 2007 Through 2014

Average Roth IRA balance for consistent Roth IRA investors; year-end, 2007–2014



Note: Consistent Roth IRA investors are 2.3 million Roth IRA investors aged 25 or older in 2014 with an account balance from year-end 2007 through year-end 2014. Age is based on the age of the Roth IRA investor in 2014. See Figure 1.12 for additional detail.

Source: The IRA Investor Database™

FIGURE 1.12

Roth IRA Balances of Consistent Roth IRA Investors Between 2007 and 2014 by Investor Age

Average Roth IRA balance for consistent Roth IRA investors by age; year-end, 2007-2014

Age	2007	2008	2009	2010	2011	2012	2013	2014
25 to 29	\$6,690	\$5,430	\$8,290	\$10,880	\$11,890	\$14,910	\$20,020	\$23,380
30 to 34	8,930	7,060	10,710	14,120	15,140	18,670	24,600	28,140
35 to 39	11,770	8,690	12,620	16,560	17,380	21,060	27,350	30,930
40 to 44	13,880	9,840	13,900	18,140	18,860	22,580	29,150	32,790
45 to 49	15,980	11,250	15,640	20,090	20,830	24,710	31,760	35,620
50 to 54	18,080	12,790	17,580	22,190	23,080	27,330	34,970	39,330
55 to 59	19,710	14,310	19,630	24,740	26,070	30,760	38,990	43,860
60 to 64	22,250	16,510	22,800	28,550	30,350	35,690	44,490	49,680
65 to 69	25,080	18,860	25,700	33,030	34,950	40,810	50,410	56,090
70 to 74	30,880	23,080	31,230	40,770	42,260	48,900	59,480	65,050
75 or older	53,300	38,600	50,090	60,570	60,960	69,020	83,250	90,600
All	19,390	14,150	19,500	24,830	25,940	30,570	38,530	43,060
24 to 59	15,060	10,860	15,240	19,560	20,470	24,450	31,450	35,450
60 to 69	23,530	17,570	24,110	30,580	32,430	38,010	47,170	52,580
70 or older	40,880	30,000	39,650	49,600	50,610	57,880	70,090	76,450

Note: Consistent Roth IRA investors are 2.3 million Roth IRA investors aged 25 or older in 2014 with an account balance from year-end 2007 through year-end 2014. Age is based on the age of the Roth IRA investor in 2014.

Source: The IRA Investor Database™

CHAPTER 2

Roth IRA Investors' Contribution Activity in 2014

Policymakers created Roth IRAs to provide taxpayers with (1) the option of paying taxes now on contributions going into Roth IRAs, (2) the ability to reinvest interest and dividends without being taxed, and (3) the ability to take qualified withdrawals tax-free. There are income restrictions on Roth IRA contribution activity, but in contrast to traditional IRAs, older workers (aged 70½ or older) are permitted to contribute. The majority of new Roth IRAs are opened with contributions. In fact, contributions provide steady inflows into Roth IRAs (see Figure 1.2), and in most years, aggregate contributions to Roth IRAs have been greater than aggregate contributions to traditional IRAs.⁵⁰ This chapter analyzes the contribution activity for a snapshot, or cross section, of Roth IRA investors, primarily focusing on how contribution activity varied in 2014 by investor age.

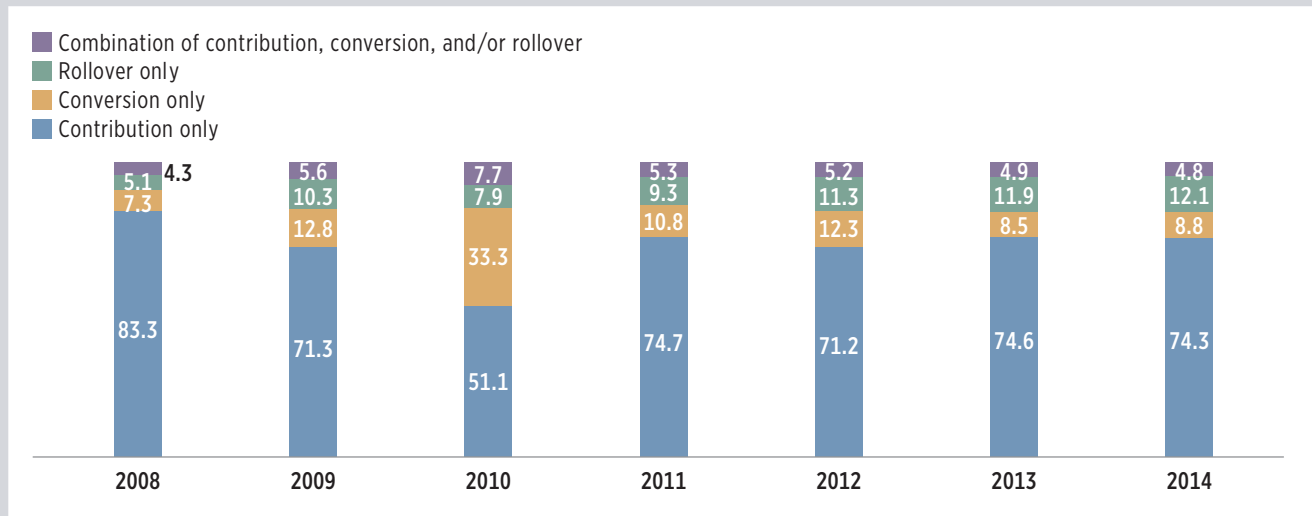
Contributions Often Were the Source of New Roth IRAs in 2014

Although Roth IRAs can be opened with contributions, conversions, or rollovers, contributions tend to be the most common source for new Roth IRAs. In 2014, nearly three-quarters (74.3 percent) of new Roth IRAs in The IRA Investor Database were opened only with contributions (Figure 2.1). Another 8.8 percent were opened only with conversions, and 12.1 percent were opened only with rollovers. Another 4.8 percent of new Roth IRAs in 2014 were opened through a combination of contributions, conversions, and/or rollovers. Contributions have historically been the most common way to open a new Roth IRA; however, when special tax treatment is available for conversions, they tend to become more important than usual (see chapter 3 for discussion of conversion activity). For example, in 2010, when the income limits on conversions were lifted and individuals could spread the tax bill over the next two years, one-third of new Roth IRAs were opened only with conversions, while about half were opened only with contributions.

FIGURE 2.1

Paths to Roth IRA Ownership Changed as Tax Rules Changed

Percentage of new Roth IRAs, 2008–2014



Note: New Roth IRAs are accounts that did not exist in The IRA Investor Database in the prior year and were opened by one of the paths in the year indicated. The calculation excludes Roth IRAs that changed financial services firms. See Figure A.4 in the appendix for additional information on 2014. Components may not add to 100 percent because of rounding.

Source: The IRA Investor Database™

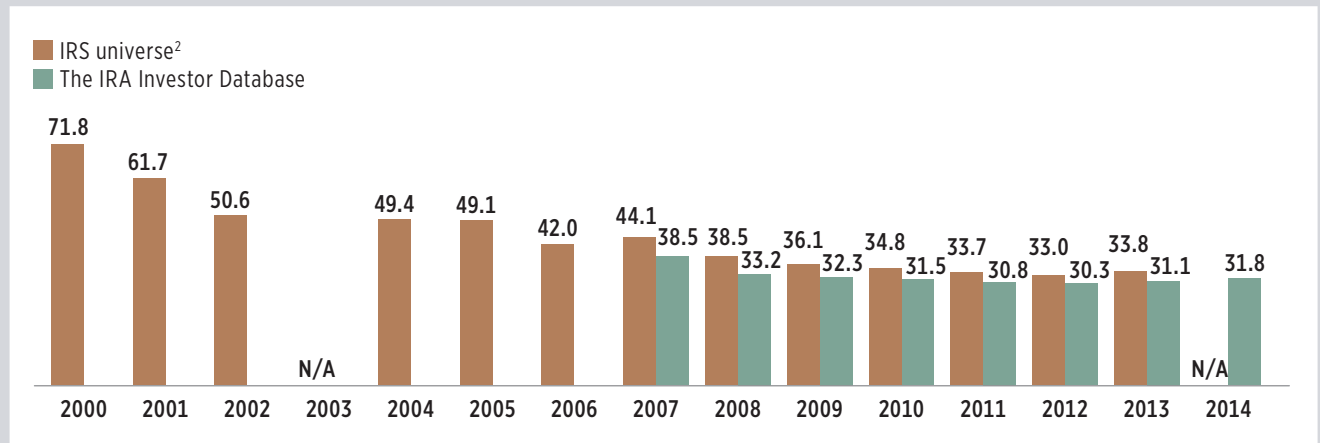
Contributions to Roth IRAs

During the past seven years, about three in 10 Roth IRA investors aged 18 or older have made contributions to their Roth IRAs in any given year (Figure 2.2). For example, in tax year 2014, 31.8 percent of Roth IRA investors aged 18 or older made contributions to their Roth IRAs. This recent contribution activity is lower than for earlier years, likely because of the growing base of Roth IRA investors, among other factors. As the base of Roth IRA investors grows, so too does the likelihood that some investors experience income growth that moves them out of eligibility to contribute to their Roth IRAs.⁵¹ Some Roth IRA investors that were ineligible to contribute may have opened their accounts with conversions. Others may prefer to direct savings into their traditional IRAs.⁵² Nevertheless, contribution activity is higher in Roth IRAs (32.7 percent of Roth IRA investors aged 25 to 69 in tax year 2014) than in traditional IRAs (8.9 percent of traditional IRA investors aged 25 to 69 in tax year 2014).⁵³

FIGURE 2.2

Roth IRA Contribution Rates

Percentage of Roth IRA investors aged 18 or older with contributions,¹ 2000–2014



¹ Roth IRA contributors are Roth IRA investors aged 18 or older who made contributions to their Roth IRAs in the tax year indicated.

² In the IRS universe, data are for Roth IRA investors of all ages.

N/A = not available

Sources: The IRA Investor Database™ and Internal Revenue Service Statistics of Income Division

Contributions to Roth IRAs in 2014 by Investor Age

Younger Roth IRA investors were more likely to contribute to their Roth IRAs than were older Roth IRA investors (Figure 2.3). Part of the reason for the lower incidence of contribution activity among older investors is the increased likelihood that some of these investors are no longer eligible to make contributions (having created the Roth IRAs to hold conversions or with contributions made in the past when their incomes were lower and they were eligible to contribute). Among Roth IRA investors aged 18 to 24 making contributions in tax year 2014, 44.3 percent opened their Roth IRA with that contribution. In contrast, only 5.8 percent of Roth IRA investors aged 75 or older in 2014 did the same.

The highest level of contribution activity in tax year 2014, 61.9 percent, was observed among Roth IRA investors aged 18 to 24, and falls across the remaining age groups (Figure 2.3). Among Roth IRA investors in their early forties, 31.3 percent contributed to their Roth IRAs in tax year 2014, while 16.3 percent of Roth IRA investors in their late sixties had contributions. In tax year 2014, 10.1 percent of Roth IRA investors in their early seventies made contributions, as did 6.3 percent of Roth IRA investors aged 75 or older.

FIGURE 2.3

Contribution Activity of Roth IRA Investors in 2014 by Investor Age

Number of Roth IRA investors and Roth IRA contributors¹ by age, 2014

Age	Roth IRA investors		Roth IRA contributors ¹		Memo:	
	Number Thousands	Share ² Percent	Number Thousands	Share ² Percent	Percentage of Roth IRA investors who made contributions ¹	Percentage of contributions that created new accounts ³
18 to 24	159.2	3.0%	98.6	5.7%	61.9%	44.3%
25 to 29	366.3	6.8	201.6	11.7	55.0	28.9
30 to 34	550.2	10.2	247.1	14.4	44.9	17.3
35 to 39	579.6	10.7	209.5	12.2	36.2	12.8
40 to 44	599.7	11.1	187.6	10.9	31.3	11.0
45 to 49	595.5	11.0	175.4	10.2	29.5	10.7
50 to 54	622.2	11.5	184.4	10.7	29.6	11.4
55 to 59	604.0	11.2	179.0	10.4	29.6	11.0
60 to 64	522.8	9.7	134.6	7.8	25.8	9.6
65 to 69	399.2	7.4	65.2	3.8	16.3	8.6
70 to 74	229.7	4.3	23.1	1.3	10.1	8.2
75 or older	167.0	3.1	10.5	0.6	6.3	5.8
All	5,395.2	100.0	1,716.8	100.0	31.8	15.9

¹Roth IRA contributors are Roth IRA investors aged 18 or older who made contributions to their Roth IRAs in tax year 2014.

²Share is the percentage of the total.

³An account was determined to be “new” in 2014 if the account did not exist in 2013 at the same financial services provider.

Note: Components may not add to the total because of rounding.

Source: The IRA Investor Database™

Roth IRA Contribution Amounts in 2014 by Investor Age

In 2014, the Roth IRA contribution limit was \$5,500 for individuals younger than 50 and \$6,500 for individuals aged 50 or older because of catch-up contributions. Even though older Roth IRA investors are less likely than younger investors to make contributions, they tend to make larger contributions. Among Roth IRA contributors aged 18 to 24, the median contribution was \$2,500 in tax year 2014 (Figure 2.4). For Roth IRA contributors aged 45 to 49, the median contribution was \$3,600 in tax year 2014. Among contributors aged 60 to 74, the median contribution was \$6,500, meaning that more than half of those who made contributions did so at the full contribution amount, including catch-up contributions (Figure 2.5).

FIGURE 2.4

Roth IRA Contribution Amounts in 2014 by Investor Age

Number and amount of contributions¹ to Roth IRAs by age, 2014

Age	Roth IRA contributors ¹		Roth IRA contributions ¹		Roth IRA contribution amount	
	Number Thousands	Share ² Percent	Amount Millions	Share ² Percent	Median	Mean
18 to 24	98.6	5.7%	\$292.4	4.7%	\$2,500	\$2,966
25 to 29	201.6	11.7	672.4	10.7	3,600	3,335
30 to 34	247.1	14.4	797.6	12.7	3,017	3,228
35 to 39	209.5	12.2	659.9	10.5	3,000	3,150
40 to 44	187.6	10.9	600.2	9.6	3,000	3,199
45 to 49	175.4	10.2	590.3	9.4	3,600	3,365
50 to 54	184.4	10.7	751.7	12.0	4,992	4,076
55 to 59	179.0	10.4	790.2	12.6	6,000	4,415
60 to 64	134.6	7.8	638.4	10.2	6,500	4,742
65 to 69	65.2	3.8	318.2	5.1	6,500	4,879
70 to 74	23.1	1.3	113.1	1.8	6,500	4,893
75 or older	10.5	0.6	49.4	0.8	6,495	4,703
All	1,716.8	100.0	6,273.9	100.0	4,100	3,654

¹ Roth IRA contributors are Roth IRA investors aged 18 or older who made contributions to their Roth IRAs in tax year 2014.

² Share is the percentage of the total.

Note: Components may not add to the total because of rounding.

Source: The IRA Investor Database™

FIGURE 2.5

Traditional and Roth IRA Contribution Limits Set by the Internal Revenue Code, 2001–2016



Note: After 2008, IRA contributions are indexed for inflation in \$500 increments. IRA catch-up contributions are not indexed for inflation.

Source: ICI summary of U.S. Internal Revenue Code

Roth IRA Investors' Contribution Amounts Varied in 2014

Although nearly four in 10 Roth IRA contributors contributed the maximum amount in tax year 2014, the amounts investors contributed varied widely. For example, while 34.7 percent of Roth IRA contributors aged 25 to 69 contributed \$2,000 or less, 23.6 percent contributed \$5,500, and 18.8 percent made at least some portion of a catch-up contribution—contributing more than \$5,500 up to the maximum of \$6,500 (Figure 2.6). Overall, 39.6 percent of all Roth IRA contributors contributed the maximum amount allowed by law, including catch-up contributions for Roth IRA investors aged 50 or older. In fact, 47.0 percent of Roth IRA investors aged 50 or older made the full age-allowed contribution of \$6,500 in tax year 2014.

FIGURE 2.6

Nearly Four in 10 Roth IRA Contributors Contributed at the Limit in 2014

Percentage of Roth IRA contributors¹ contributing the amount indicated by age, 2014

Age	Amount of Roth IRA contribution ²									
	≤\$2,000	>\$2,000 to ≤\$3,000	>\$3,000 to ≤\$4,000	>\$4,000 to <\$5,000	\$5,000	>\$5,000 to <\$5,500	\$5,500 ³	>\$5,500 to ≤\$6,000 ³	>\$6,000 to <\$6,500 ³	\$6,500 ³
18 to 24	45.1	11.0	5.7	2.8	3.1	1.4	30.8	0.0	0.0	0.0
25 to 29	38.1	9.5	4.7	3.1	2.6	2.1	39.9	0.0	0.0	0.0
30 to 34	40.1	9.9	4.8	3.7	2.4	2.6	36.5	0.0	0.0	0.0
35 to 39	41.3	10.4	5.2	4.1	2.6	2.7	33.7	0.0	0.0	0.0
40 to 44	40.1	10.8	5.3	4.3	3.0	2.7	33.8	0.0	0.0	0.0
45 to 49	36.9	10.4	5.3	4.3	3.6	2.8	36.7	0.0	0.0	0.0
50 to 54	31.6	9.6	5.5	3.3	2.8	1.0	1.4	3.3	1.8	39.7
55 to 59	26.6	8.9	5.1	2.8	2.1	0.8	0.7	5.3	1.7	45.9
60 to 64	21.8	7.8	4.8	2.7	2.0	0.8	0.6	5.4	1.5	52.7
65 to 69	19.9	6.8	4.6	2.8	2.2	0.8	0.6	5.1	1.5	55.7
70 to 74	19.2	6.7	5.0	3.0	2.4	1.0	0.7	5.2	1.4	55.4
75 or older	21.5	7.3	5.7	3.3	3.0	1.1	0.8	6.1	1.3	49.9
All	35.0	9.7	5.1	3.5	2.6	1.9	23.6	1.6	0.6	16.4
Memo:										
25 to 69	34.7	9.6	5.1	3.5	2.6	2.0	23.6	1.6	0.6	16.6
50 or older	26.0	8.5	5.1	3.0	2.3	0.9	0.9	4.7	1.6	47.0

¹ Roth IRA contributors are investors aged 18 or older who made contributions to their Roth IRAs in tax year 2014.

² The contribution limit in tax year 2014 was \$5,500 for Roth IRA investors younger than 50 and \$6,500 for Roth IRA investors aged 50 or older. Income limits may phase these amounts down for some taxpayers.

³ In total, 39.6 percent of Roth IRA contributors appear to have contributed at the limit. If individuals who were apparently eligible for catch-up contributions, and who contributed at least \$5,500 are included, 42.1 percent of Roth IRA contributors made contributions at the limit.

Note: The sample is 1.7 million Roth IRA investors aged 18 or older with contributions in tax year 2014. Row percentages may not add to 100 percent because of rounding.

Source: The IRA Investor Database™

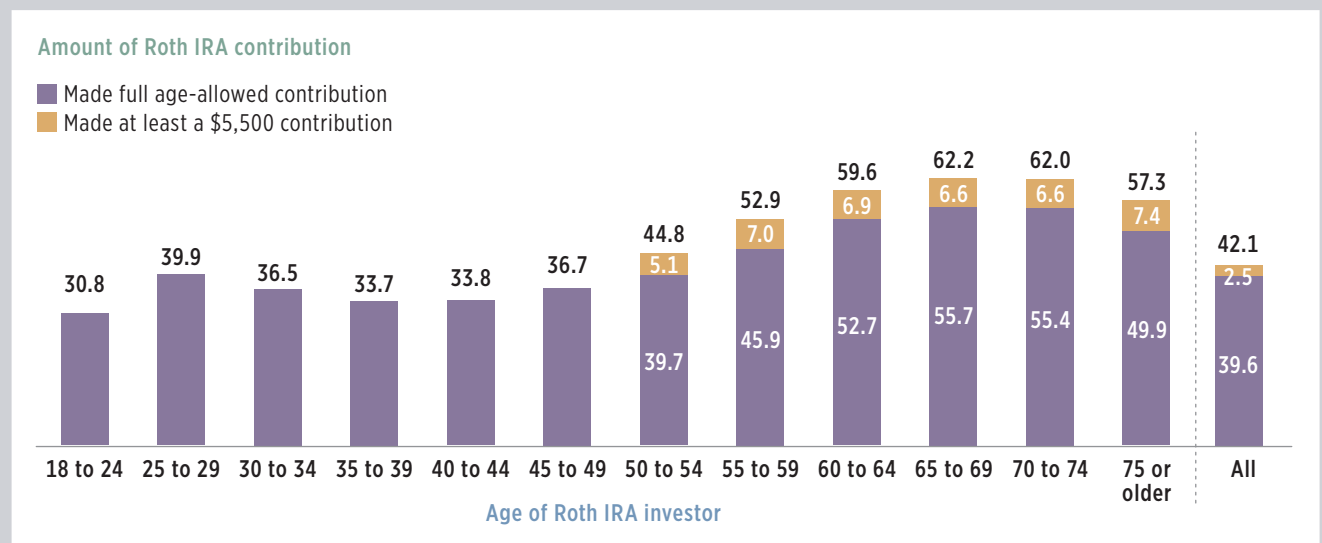
Older Roth IRA Contributors Were More Likely to Contribute at the Limit in 2014

Nearly 40 percent of Roth IRA contributors contributed at the limit in tax year 2014, and older Roth IRA contributors were more likely to contribute at the limit. For example, 30.8 percent of Roth IRA contributors aged 18 to 24 and 36.5 percent of Roth IRA contributors aged 30 to 34 contributed at the \$5,500 limit in tax year 2014 (Figure 2.7). Among contributors aged 65 to 69, 55.7 percent contributed at the full \$6,500 limit, including catch-up contributions. If investors who contributed at least \$5,500 are considered, then 62.2 percent of Roth IRA contributors aged 65 to 69 reached the limit. Overall, 42.1 percent of Roth IRA contributors in tax year 2014 contributed at least \$5,500 to their Roth IRAs.

FIGURE 2.7

Older Roth IRA Contributors Were More Likely to Contribute at the Limit in Tax Year 2014

Percentage of Roth IRA contributors¹ contributing at the limit² as a percentage of Roth IRA contributors by age, tax year 2014



¹Roth IRA contributors are Roth IRA investors aged 18 or older who made contributions to their Roth IRAs in tax year 2014.

²The contribution limit in tax year 2014 was \$5,500 for Roth IRA investors younger than 50 and \$6,500 for Roth IRA investors aged 50 or older. Income limits may phase these amounts down for some taxpayers.

Note: Components may not add to the total because of rounding. The sample is 1.7 million Roth IRA investors aged 18 or older with contributions in tax year 2014.

Source: The IRA Investor Database™

Persistence in Contribution Activity Among Roth IRA Investors from 2013 to 2014

In The IRA Investor Database for 2014, there are 4.9 million Roth IRA investors aged 19 or older who also had Roth IRAs at the same financial services firm in the 2013 database. The tracking of the same individual IRA investors over time makes it possible to analyze persistence in contribution activity. The persistence in both the decision to contribute at all and the decision to contribute at the age-allowed limit is very high. This reinforces a key insight about IRA contributors that emerges from the earlier analysis: for Roth IRA investors who make contributions in a given year, the IRA is likely a key saving vehicle.

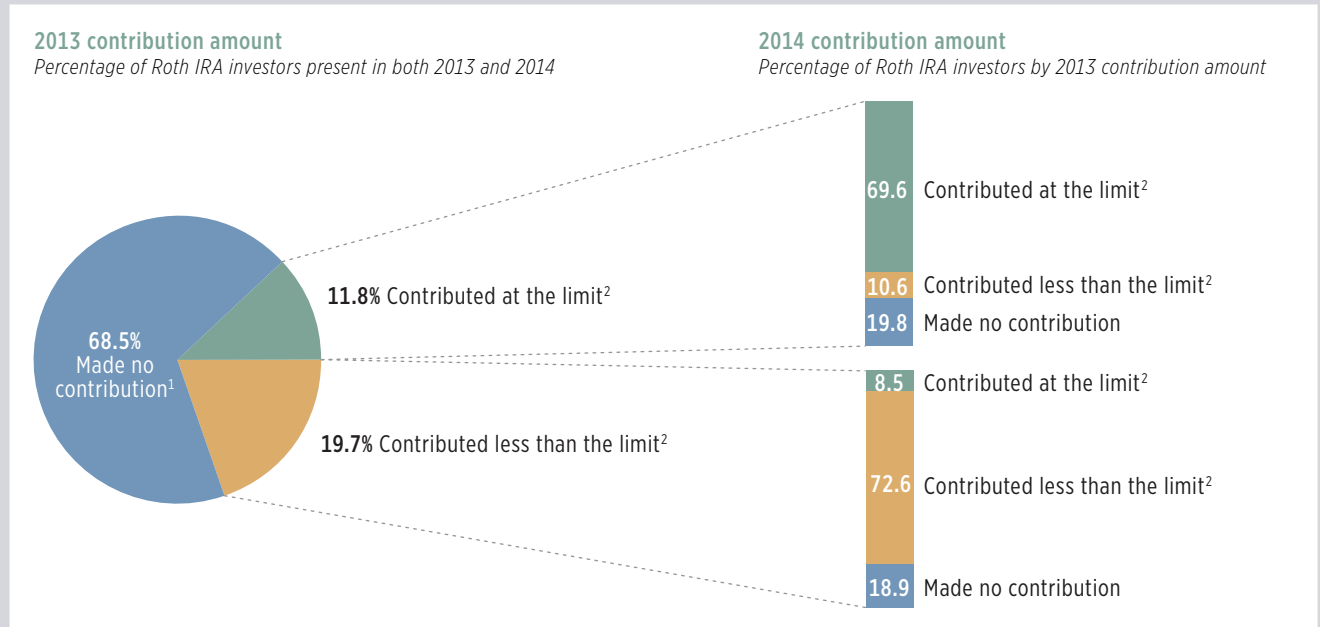
The overall persistence in Roth IRA contribution activity between 2013 and 2014 is 81 percent, which means that more than eight in 10 Roth IRA investors who contributed in tax year 2013 also contributed in tax year 2014 (Figure 2.8).

Contributions at the Limit Tend to Persist

Most Roth IRA investors who contributed at the full legal limit in tax year 2013 continued to contribute in tax year 2014—and did so at the limit again. Among Roth IRA investors aged 19 or older in 2014 with account balances in both 2013 and 2014, 31.5 percent contributed to their Roth IRAs in tax year 2013, with 11.8 percent contributing at the limit (Figure 2.8). Among those contributing at the limit in tax year 2013, eight in 10 contributed again in tax year 2014, with 69.6 percent continuing to contribute at the limit. Among those contributing less than the limit in tax year 2013, more than eight in 10 contributed again in tax year 2014, with 72.6 percent continuing to contribute less than the limit, and 8.5 percent increasing their contributions up to the full limit.

FIGURE 2.8

Most Roth IRA Investors at the Limit in Tax Year 2013 Continued to Contribute at the Limit in Tax Year 2014



¹ Among the 68.5 percent of Roth IRA investors who did not contribute in tax year 2013, 2.4 percent contributed at the limit in tax year 2014 and 3.0 percent contributed below the limit in tax year 2014.

² The contribution limit in tax year 2013 was \$5,500 for Roth IRA investors younger than 50 and \$6,500 for Roth IRA investors aged 50 or older. The contribution limit in tax year 2014 was \$5,500 for Roth IRA investors younger than 50 and \$6,500 for Roth IRA investors aged 50 or older. Income limits may phase these amounts down for some taxpayers. Investors were considered at the limit if they contributed their full age-allowed amount.

Note: The sample is 4.9 million Roth IRA investors aged 19 or older in 2014 with Roth IRA balances in both 2013 and 2014.

Source: The IRA Investor Database™

CHAPTER 3

Roth IRA Investors' Conversion and Rollover Activity in 2014

Congress created Roth IRAs allowing contributions (subject to income limits), conversions (subject to income limits until 2010), and rollovers. Direct rollovers from designated Roth accounts in retirement plans to Roth IRAs have been permitted since 2006, and direct rollovers of non-Roth qualified retirement plan accumulations into Roth IRAs have been permitted since 2008. Although contributions are the main inflows to, and origin of, Roth IRAs, conversion activity responds to rule changes designed to promote Roth IRAs. A conversion occurs when an individual withdraws money from a non-Roth IRA, pays the taxes due on the withdrawal, and converts the assets into a Roth IRA.⁵⁴ Rollover activity is extremely rare into Roth IRAs to date, but recent rule changes and the increased adoption of Roth features in 401(k) plans may serve to increase Roth rollovers in the future.⁵⁵

This chapter analyzes the conversion activity of Roth IRA investors, focusing on variation in conversion activity in 2014 by investor age. It also explores the variation in Roth IRA balances in 2014 by the presence of recent conversions. Finally, it briefly examines rollover activity among Roth IRAs, where direct rollovers from non-Roth employer-sponsored plan accounts have only been possible since 2008. Direct rollovers from designated Roth accounts in employer-sponsored retirement plans to Roth IRAs have been permitted since 2006.

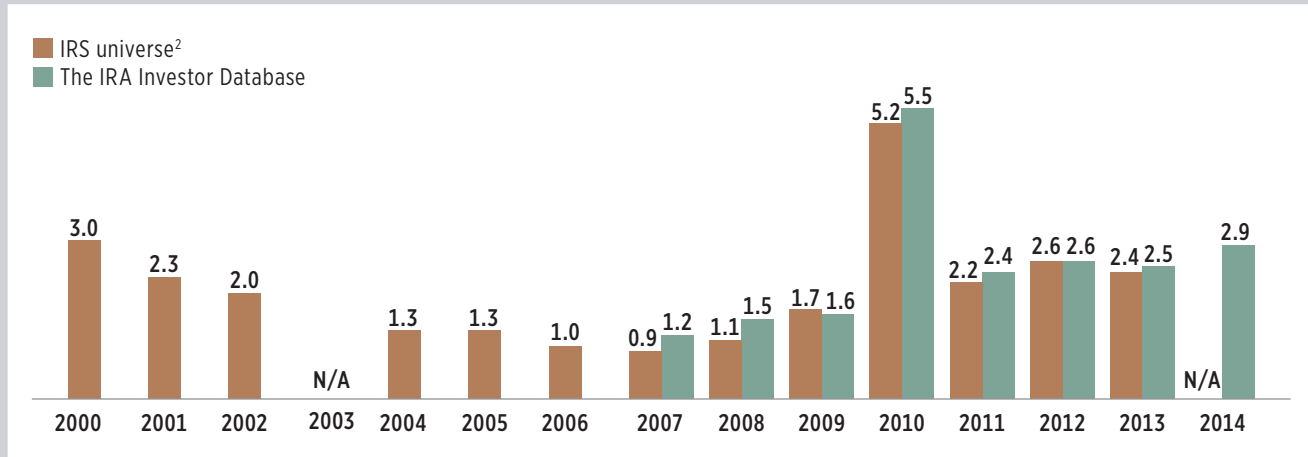
Roth IRA Conversion Activity

Typically, few Roth IRA investors have conversions. Between 2004 and 2009, less than 2 percent of Roth IRA investors had conversions in any given year (Figure 3.1). In 2010, when income limits were lifted for conversions and the taxes owed on amounts converted could be spread over 2011 and 2012,⁵⁶ more than 5 percent of Roth IRA investors had conversions. Since 2010, conversion activity has been running higher than prior to 2010, but at lower levels now that the special tax payment option is no longer available. In 2014, 2.9 percent of Roth IRA investors had conversions into their Roth IRAs.

FIGURE 3.1

Roth IRA Investors' Conversion Activity Responds to Tax Law Changes

Percentage of Roth IRA investors aged 18 or older with conversions,¹ 2000–2014



¹ Roth IRA investors with conversions are Roth IRA investors aged 18 or older who had conversions in the year indicated.

² In the IRS universe, data are for Roth IRA investors of all ages.

N/A = not available

Sources: The IRA Investor Database™ and Internal Revenue Service Statistics of Income Division

Roth IRA Conversion Activity in 2014 by Investor Age

In 2014, 2.9 percent of Roth IRA investors made conversions, and conversion activity varied by investor age, ranging from 1.0 percent of Roth IRA investors aged 18 to 24 to 5.2 percent of Roth IRA investors aged 65 to 69 (Figure 3.2). Roth IRA conversion activity was distributed across all age groups.

The bulk of younger Roth IRA investors making conversions in 2014 did so to open a new account. That includes more than seven in 10 Roth IRA investors aged 18 to 24 and more than five in 10 Roth IRA investors aged 25 to 29 with conversions in 2014 (Figure 3.2). Still, even among Roth IRA investors aged 65 to 69 with conversions in 2014, 16.3 percent of those conversions opened new accounts.

FIGURE 3.2

Conversion Activity of Roth IRA Investors in 2014 by Investor Age

Number of Roth IRA investors and Roth IRA investors with conversions¹ by age, 2014

Age	Roth IRA investors		Roth IRA investors with conversions ¹		Memo:	
	Number Thousands	Share ² Percent	Number Thousands	Share ² Percent	Percentage of Roth IRA investors who made conversions ¹	Percentage of conversions that created new accounts ³
18 to 24	159.2	3.0%	1.6	1.0%	1.0%	73.6%
25 to 29	366.3	6.8	8.6	5.5	2.4	54.7
30 to 34	550.2	10.2	17.4	11.1	3.2	37.1
35 to 39	579.6	10.7	19.5	12.4	3.4	27.6
40 to 44	599.7	11.1	17.1	10.9	2.9	23.6
45 to 49	595.5	11.0	14.9	9.5	2.5	22.8
50 to 54	622.2	11.5	14.5	9.3	2.3	23.2
55 to 59	604.0	11.2	13.8	8.8	2.3	22.6
60 to 64	522.8	9.7	15.9	10.1	3.0	21.3
65 to 69	399.2	7.4	20.6	13.1	5.2	16.3
70 to 74	229.7	4.3	7.9	5.0	3.4	12.2
75 or older	167.0	3.1	5.0	3.2	3.0	12.6
All	5,395.2	100.0	157.0	100.0	2.9	25.5

¹Roth IRA investors with conversions are Roth IRA investors aged 18 or older who converted traditional IRA assets to a Roth IRA in tax year 2014.

²Share is the percentage of the total.

³An account was determined to be “new” in 2014 if the account did not exist in 2013 at the same financial services provider.

Note: Components may not add to the total because of rounding.

Source: The IRA Investor Database™

Roth IRA Conversion Amounts in 2014 by Investor Age

Conversion amounts tend to rise with investor age, reflecting the longer amount of time that older investors have had to build retirement accumulations outside of Roth IRAs.⁵⁷ The median conversion amount among Roth IRA investors aged 18 to 24 with conversions in 2014 was \$2,104, rising to \$20,000 for Roth IRA investors aged 65 to 69, before falling to \$12,500 for investors aged 75 or older (Figure 3.3). Mean conversion amounts rose from \$3,488 among Roth IRA investors aged 18 to 24 with conversions in 2014, to \$33,268 among those aged 65 to 69, before falling to \$28,870 for investors aged 75 or older. Although Roth IRA investors aged 50 or older accounted for about half of conversions, nearly three-quarters of the money converted in 2014 came from this group. In fact, Roth IRA investors aged 65 to 69 accounted for more than one-quarter of all conversion money, reflecting their high average conversion amounts as well as the large number of conversions that came from this age group.

FIGURE 3.3

Roth IRA Investors with Conversions in 2014 by Investor Age*Number and amount of conversions¹ to Roth IRAs by age, 2014*

Age	Roth IRA investors with conversions ¹		Roth IRA conversions ¹		Roth IRA conversion amount	
	Number Thousands	Share ² Percent	Amount Millions	Share ² Percent	Median	Mean
18 to 24	1.6	1.0%	\$5.6	0.2%	\$2,104	\$3,488
25 to 29	8.6	5.5	56.6	2.1	5,471	6,549
30 to 34	17.4	11.1	139.5	5.3	5,500	8,003
35 to 39	19.5	12.4	167.7	6.3	5,500	8,587
40 to 44	17.1	10.9	169.7	6.4	5,500	9,895
45 to 49	14.9	9.5	158.5	6.0	5,500	10,644
50 to 54	14.5	9.3	197.9	7.5	6,500	13,623
55 to 59	13.8	8.8	253.2	9.6	6,575	18,329
60 to 64	15.9	10.1	430.5	16.3	13,000	27,055
65 to 69	20.6	13.1	685.6	25.9	20,000	33,268
70 to 74	7.9	5.0	233.9	8.9	15,000	29,787
75 or older	5.0	3.2	143.7	5.4	12,500	28,870
All	157.0	100.0	2,642.4	100.0	6,500	16,836

¹ Roth IRA investors with conversions are Roth IRA investors aged 18 or older who converted traditional IRA assets to a Roth IRA in tax year 2014.

² Share is the percentage of the total.

Note: Components may not add to the total because of rounding.

Source: The IRA Investor Database™

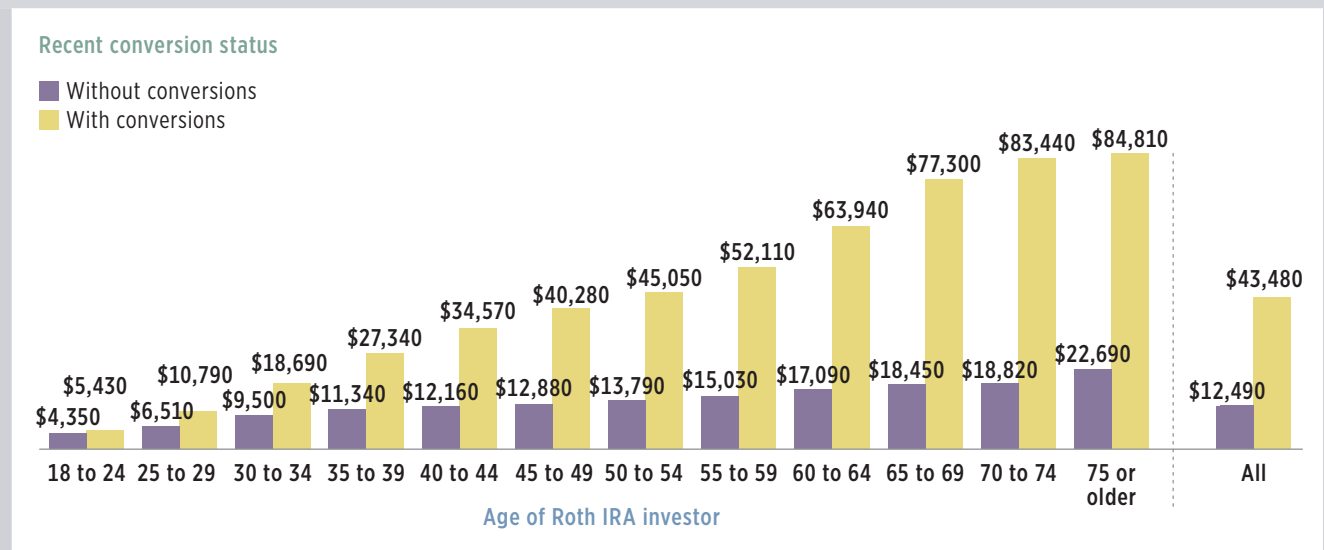
Conversions Tend to Have a Strong Positive Impact on Roth IRA Balances

Conversions into Roth IRAs appear to have a substantial, positive impact on the size of account balances.⁵⁸ The impact of recent conversions can be seen most clearly among older Roth IRA investors. For example, among Roth IRA investors aged 70 to 74 with conversions between 2007 and 2014, the median Roth IRA balance at year-end 2014 was \$83,440, compared with \$18,820 for those without conversions, or nearly four and a half times as much (Figure 3.4). Household survey data also find a substantial effect of conversions on Roth IRA balances.⁵⁹

FIGURE 3.4

Recent Conversions Provide a Significant Boost to Roth IRA Balances

Median account balances among Roth IRA investors by age, year-end 2014



Note: Recent conversions are those that occurred between 2007 and 2014. Conversions made prior to 2007, as well as conversions made prior to a change in financial services provider, cannot be identified in the database. The sample is 5.4 million Roth IRA investors aged 18 or older at year-end 2014. See Figure 3.2 for sample counts by age group.

Source: The IRA Investor Database™

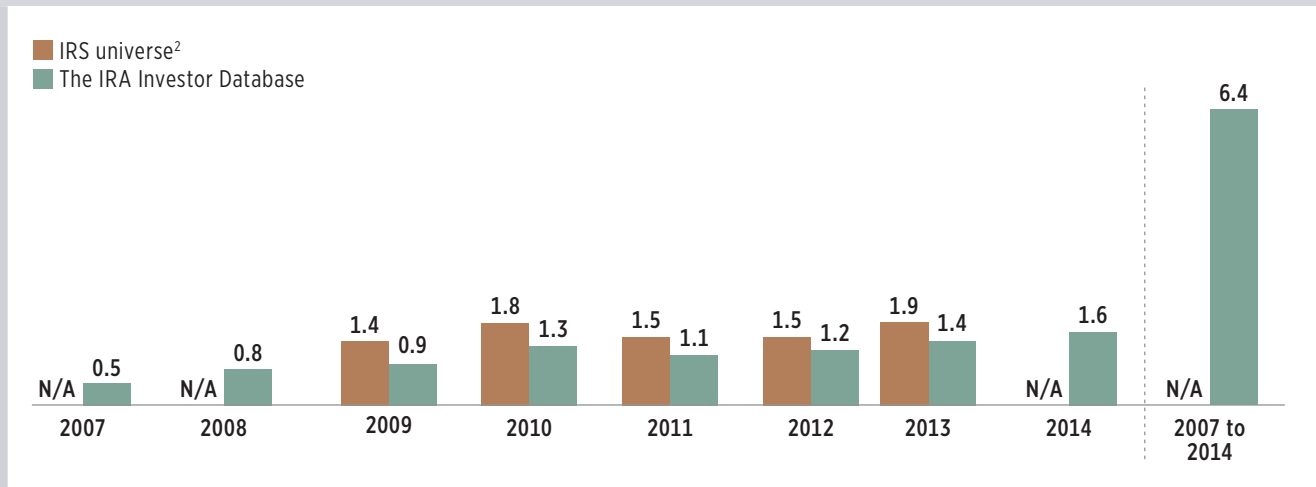
Roth IRA Rollover Activity Is Rare

Roth IRAs have always been permitted to accept rollovers from other Roth IRAs, and since 2006 they have been able to accept rollovers directly from designated Roth accounts in employer-sponsored retirement plans (which could be established starting in 2006). Direct rollovers of non-Roth qualified retirement plan accumulations into Roth IRAs have been permitted since 2008. In the data, rollovers between IRAs generally are not reported as rollovers; rather, the database tends to capture rollovers from employer-sponsored retirement plans to IRAs. In any given year, less than 2 percent of Roth IRA investors had rollovers into their Roth IRAs (Figure 3.5). Because rollovers tend not to be repeated from year to year, it is important to cumulate rollover activity. Even then, only 6.4 percent of Roth IRA investors at year-end 2014 had made rollovers into their Roth IRAs between 2007 and 2014.⁶⁰

FIGURE 3.5

Very Few Roth IRA Investors Have Rollovers

Percentage of Roth IRA investors aged 18 or older with rollovers,¹ 2007–2014



¹Roth IRA investors with rollovers are Roth IRA investors aged 18 or older who had rollovers into their Roth IRAs in the year or years indicated.

²In the IRS universe, data are for Roth IRA investors of all ages.

Note: Rollovers made prior to 2007, as well as rollovers made prior to a change in financial services providers, cannot be identified in the database.

N/A = not available

Sources: The IRA Investor Database™ and Internal Revenue Service Statistics of Income Division

The low level of rollover activity in Roth IRAs is in stark contrast to the high rollover activity in traditional IRAs. Traditional IRAs most often are opened with rollovers from employer-sponsored retirement plans (defined benefit and defined contribution), and in any given year about one in 10 traditional IRA investors have rollovers.⁶¹ In 2013, \$393.4 billion in rollovers flowed into traditional IRAs,⁶² compared with rollovers of \$5.5 billion into Roth IRAs (see Figure 1.2). Rollovers tend to occur as individuals change jobs or retire, and thus, typically different groups of individuals have rollovers each year.⁶³ Household survey data indicate that nearly half of traditional IRA-owning households in 2015 had rollovers in their traditional IRAs, while only 22 percent of Roth IRA-owning households indicated that some of the assets in their Roth IRAs initially were employer-sponsored retirement plan assets.⁶⁴

CHAPTER 4

Roth IRA Investors' Withdrawal Activity in 2014

IRA investors can decide when and how to draw down the assets they hold inside their Roth IRAs, although IRS penalties or distribution requirements may apply. This chapter first briefly reviews the distribution, or withdrawal, rules governing Roth IRAs. It then analyzes the withdrawal activity of Roth IRA investors, primarily focusing on variation in withdrawal activity in 2014 by investor age.

The main distribution rules governing access to Roth IRAs involve whether five years have elapsed since the tax year of the first contribution to the Roth IRA and the investor's age.⁶⁵ For investors younger than 59½, distributions from Roth IRAs may be subject to a 10 percent penalty. However, as with traditional IRAs, there are some exceptions to the penalty, including distributions for the purchase of a first home (up to \$10,000) or certain qualified higher-education expenses.⁶⁶ Unlike traditional IRAs, income tax typically is not due on qualified Roth IRA distributions and there are no RMDs for the original Roth IRA investor. However, inherited Roth IRAs must be distributed pursuant to RMD rules.⁶⁷

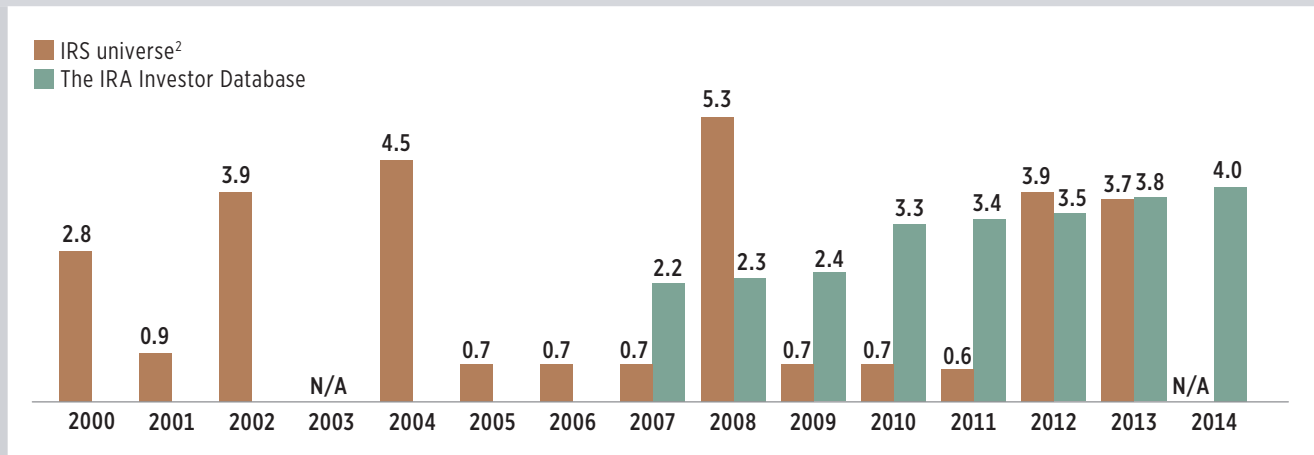
Roth IRA Withdrawal Activity

Very few Roth IRA investors take withdrawals from their Roth IRAs in any given year. Nevertheless, the percentage of Roth IRA investors taking distributions from their Roth IRAs in any given year has risen somewhat in the wake of the financial crisis. Analysis of Roth IRA investors in The IRA Investor Database in 2007, 2008, and 2009 shows that nearly 2.5 percent of Roth IRA investors had distributions in each of those years (Figure 4.1). The percentage taking distributions edged up to 3.3 percent in 2010, 3.4 percent in 2011, 3.5 percent in 2012, 3.8 percent in 2013, and 4.0 percent in 2014.

FIGURE 4.1

Withdrawal Activity of Roth IRA Investors

Percentage of Roth IRA investors with withdrawals,¹ 2000–2014



¹ The figure reports the percentage of Roth IRA investors aged 18 or older at year-end who had withdrawals from their Roth IRAs in the tax year indicated.

² In the IRS universe, data are for Roth IRA investors of all ages.

N/A = not available

Sources: The IRA Investor Database™ and Internal Revenue Service Statistics of Income Division

Roth IRA Withdrawal Activity in 2014 by Investor Age

Not only do few Roth IRA investors take withdrawals in any given year, but withdrawal activity varies little across investor age. In The IRA Investor Database, only 4.0 percent of Roth IRA investors took withdrawals from their Roth IRAs in 2014, and withdrawal activity ranges from 2.2 percent of Roth IRA investors aged 18 to 24 to 5.9 percent of Roth IRA investors aged 75 or older (Figure 4.2). Withdrawal activity does not vary much between Roth IRA investors facing the age-related penalty (those younger than 59½) and those older. On average, 3.4 percent of Roth IRA investors younger than 60 took withdrawals, compared with 5.7 percent of Roth IRA investors aged 60 or older. Withdrawal activity of the oldest Roth IRA investors varied little from the others, as RMDs generally do not apply (unless the Roth IRAs are inherited).

FIGURE 4.2

Withdrawal Activity of Roth IRA Investors in 2014 by Investor Age

Number of Roth IRA investors and Roth IRA investors with withdrawals¹ by age, 2014

Age	Roth IRA investors		Roth IRA investors with withdrawals ¹		Memo: percentage of Roth IRA investors who had withdrawals ¹
	Number Thousands	Share ² Percent	Number Thousands	Share ² Percent	
18 to 24	159.2	3.0%	3.5	1.7%	2.2%
25 to 29	366.3	6.8	11.2	5.2	3.1
30 to 34	550.2	10.2	18.8	8.8	3.4
35 to 39	579.6	10.7	19.7	9.2	3.4
40 to 44	599.7	11.1	20.8	9.7	3.5
45 to 49	595.5	11.0	21.5	10.1	3.6
50 to 54	622.2	11.5	22.3	10.4	3.6
55 to 59	604.0	11.2	21.0	9.9	3.5
60 to 64	522.8	9.7	29.2	13.7	5.6
65 to 69	399.2	7.4	22.8	10.7	5.7
70 to 74	229.7	4.3	12.8	6.0	5.6
75 or older	167.0	3.1	9.9	4.6	5.9
All	5,395.2	100.0	213.6	100.0	4.0
Memo:					
25 to 59	3,917.4	74.8	135.4	64.4	3.5
60 to 69	922.0	17.6	52.0	24.7	5.6
70 or older	396.7	7.6	22.7	10.8	5.7
25 or older	5,236.1	100.0	210.1	100.0	4.0

¹Roth IRA investors with withdrawals are Roth IRA investors aged 18 or older who had withdrawals from their Roth IRAs in tax year 2014.

²Share is the percentage of the total.

Note: Withdrawals resulting from excess contributions are excluded. Components may not add to the total because of rounding.

Source: The IRA Investor Database™

Roth IRA Withdrawal Amounts in 2014 by Investor Age

Roth IRA withdrawal amounts tend to increase with investor age (Figure 4.3). In 2014, the median distribution among Roth IRA investors aged 18 to 24 with withdrawals was \$1,110. This number generally rose with age, peaking at \$5,095 for investors aged 75 or older. The average Roth IRA withdrawal amounts followed a similar pattern, although at higher levels, rising from \$3,284 among the youngest Roth IRA investors to \$15,753 among the oldest.

FIGURE 4.3

Roth IRA Withdrawals in 2014 by Investor Age

Number and amount of withdrawals¹ from Roth IRAs by age, 2014

Age	Roth IRA investors with withdrawals ¹		Roth IRA withdrawals ¹		Roth IRA withdrawal amount	
	Number Thousands	Share ² Percent	Amount Millions	Share ² Percent	Median	Mean
18 to 24	3.5	1.7%	\$11.6	0.7%	\$1,110	\$3,284
25 to 29	11.2	5.2	46.7	2.8	2,106	4,174
30 to 34	18.8	8.8	101.2	6.0	3,000	5,382
35 to 39	19.7	9.2	116.4	6.9	3,000	5,906
40 to 44	20.8	9.7	128.2	7.6	2,926	6,161
45 to 49	21.5	10.1	137.6	8.2	2,973	6,401
50 to 54	22.3	10.4	150.9	9.0	2,888	6,764
55 to 59	21.0	9.9	156.0	9.3	3,000	7,412
60 to 64	29.2	13.7	288.0	17.1	4,800	9,872
65 to 69	22.8	10.7	241.1	14.3	4,647	10,569
70 to 74	12.8	6.0	151.7	9.0	4,500	11,846
75 or older	9.9	4.6	156.0	9.3	5,095	15,753
All	213.6	100.0	1,685.5	100.0	3,277	7,891

¹ Roth IRA investors with withdrawals are Roth IRA investors aged 18 or older who had withdrawals from their Roth IRAs in tax year 2014.

² Share is the percentage of the total.

Note: Withdrawals resulting from excess contributions generally are excluded. Components may not add to the total because of rounding.

Source: The IRA Investor Database™

CHAPTER 5

Roth IRA Investors' Balances at Year-End 2014

The amounts accumulated in Roth IRAs depend on contributions, conversions, rollovers, withdrawals, and investment returns, which are based on how the assets are allocated. Contribution, conversion, rollover, and withdrawal activity in Roth IRAs is governed by Internal Revenue Code regulations. Roth IRA investors have access to a wide range of investment options available in the retail financial services market.⁶⁸ This chapter analyzes the variation in Roth IRA balances in 2014 by investor age.

Roth IRA Balances in 2014 by Investor Age

Older investors tend to have larger Roth IRA balances. The median Roth IRA balance was \$13,770 at year-end 2014, but the amount invested varied widely across investors (Figure 5.1).⁶⁹ Roth IRA balances tend to increase with investor age. The median Roth IRA balance for investors aged 18 to 24 was \$4,360, compared with \$29,490 for investors aged 75 or older.

Roth IRA balances varied even among Roth IRA investors of similar ages, as evidenced by the difference between the 25th percentile, median (50th percentile), and 75th percentile for individual age groups. For example, among Roth IRA investors aged 60 to 64, the median balance was \$19,340 at year-end 2014, but the 25th percentile balance was \$7,160, and the 75th percentile balance was \$49,960 (Figure 5.1). This range reflects the variety of histories for these IRA investors, which are affected by variation in factors such as timing and patterns of contribution, conversion, and rollover activity; asset allocations; withdrawals; and lengths of time investing in Roth IRAs.⁷⁰

FIGURE 5.1

Roth IRA Balances in 2014 Tended to Increase with Investor Age

25th percentile, median, and 75th percentile account balances among Roth IRA investors by age; year-end 2014

Age	25th percentile	Median	75th percentile
18 to 24	\$1,700	\$4,360	\$9,290
25 to 29	\$2,840	\$6,670	\$16,110
30 to 34	\$4,000	\$10,180	\$24,500
35 to 39	\$4,710	\$12,200	\$30,240
40 to 44	\$5,000	\$13,160	\$33,360
45 to 49	\$5,330	\$14,000	\$36,350
50 to 54	\$5,760	\$14,950	\$39,310
55 to 59	\$6,420	\$16,400	\$43,050
60 to 64	\$7,160	\$19,340	\$49,960
65 to 69	\$8,100	\$22,620	\$57,680
70 to 74	\$8,950	\$24,610	\$62,910
75 or older	\$10,300	\$29,490	\$81,140
All	\$5,290	\$13,770	\$36,460

Note: The sample is 5.4 million Roth IRA investors aged 18 or older at year-end 2014.

Source: The IRA Investor Database™

Distribution of Roth IRA Balances by Size in 2014

Perhaps reflecting their limited history (Roth IRAs were first available in 1998) and the restrictions placed on Roth IRAs (e.g., income restrictions on contributions, income restrictions on conversions [until 2010], restrictions on rollovers), Roth IRA balances tend to be small.⁷¹ At year-end 2014, 23.7 percent of Roth IRA balances in The IRA Investor Database were less than \$5,000, and another 17.5 percent were between \$5,000 and \$10,000 (Figure 5.2). However, there is a wide distribution of the Roth IRA balances; for example, 6.1 percent of Roth IRA investors had account balances of \$100,000 or more. Some of the variation in Roth IRA balances is explained by differences in contribution, conversion, and rollover activity; differing withdrawal activity and asset allocations also contribute to the variation.

The range of Roth IRA balances is most pronounced by investor age. Younger Roth IRA investors were more likely to have small balances than older Roth IRA investors in 2014. For example, although 53.7 percent of Roth IRA investors aged 18 to 24 had balances of less than \$5,000, that percentage fell for each successive age group, reaching a minimum of 11.7 percent of Roth IRA investors aged 75 or older (Figure 5.2). At the other extreme, while a negligible number of younger Roth IRA investors had balances of \$100,000 or more, this percentage rose with age, and 20.7 percent of Roth IRA investors aged 75 or older had such large balances.

FIGURE 5.2

Roth IRA Balances in 2014 by Investor Age

Percentage of Roth IRA investors by age, year-end 2014

Age	Size of Roth IRA balance								
	Less than \$5,000	\$5,000 to <\$10,000	\$10,000 to <\$20,000	\$20,000 to <\$30,000	\$30,000 to <\$40,000	\$40,000 to <\$70,000	\$70,000 to <\$100,000	\$100,000 to <\$200,000	\$200,000 or more
18 to 24	53.7	22.8	14.5	4.3	1.8	2.0	0.6	0.2	(*)
25 to 29	37.7	22.7	20.2	8.5	4.5	5.0	1.0	0.3	(*)
30 to 34	29.6	19.9	20.3	10.4	6.4	9.7	2.8	1.0	0.1
35 to 39	26.2	18.0	19.8	10.8	7.1	11.4	4.3	2.1	0.2
40 to 44	24.9	17.3	19.3	10.8	7.2	11.7	5.1	3.3	0.5
45 to 49	23.4	17.2	19.1	10.6	7.1	12.1	5.5	4.2	0.9
50 to 54	21.7	17.3	18.7	10.7	7.1	12.2	5.9	5.0	1.4
55 to 59	19.4	17.2	18.6	10.7	7.3	12.6	6.3	6.0	1.9
60 to 64	16.9	16.1	17.9	10.9	7.6	13.7	7.2	7.0	2.7
65 to 69	14.9	14.7	17.2	10.8	7.8	14.5	7.7	8.2	4.2
70 to 74	13.3	14.1	17.2	10.8	7.9	14.3	7.5	8.8	6.2
75 or older	11.7	12.7	16.0	10.1	7.3	13.9	7.7	10.8	9.9
All	23.7	17.5	18.7	10.4	6.9	11.5	5.2	4.4	1.7

Note: The sample is 5.4 million Roth IRA investors aged 18 or older at year-end 2014. Row percentages may not add to 100 percent because of rounding.

(*) = less than 0.05 percent

Source: The IRA Investor Database™

CHAPTER 6

Snapshots of Investments in Roth IRAs at Year-End 2007 and Year-End 2014

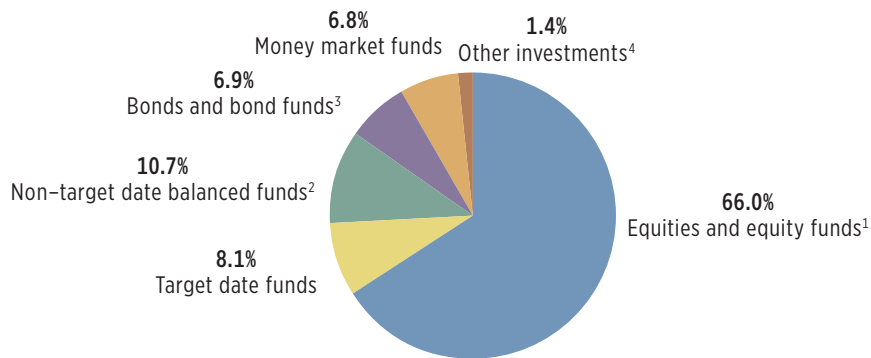
IRA investors allocate their IRA assets to individual securities (e.g., stocks and bonds), mutual funds, ETFs, closed-end funds, annuities, deposits, and other investments.⁷² This chapter analyzes the average dollar-weighted asset allocation of Roth IRA balances at year-end 2014 by investor age. Snapshots of Roth IRA asset allocations at year-end 2014 are compared with the asset allocation at year-end 2007. In addition, snapshots of individual Roth IRA investors' concentrations in equity holdings—that is, the percentage of individual Roth IRA balances invested in equities, equity funds, and the equity portion of balanced funds—between year-end 2007 and year-end 2014 also are compared.

On average, equities and equity funds represent the largest investment category among Roth IRA investors. At year-end 2014, on average, equities and equity funds were 66.0 percent of Roth IRA assets held by individuals aged 18 or older (Figure 6.1). Balanced, or hybrid, funds—which invest in a mix of equities and fixed-income securities and include target date funds⁷³—were the next largest component, accounting for 18.8 percent of Roth IRA assets. At year-end 2014, 6.9 percent of Roth IRA assets were held in bonds and bond funds, and 6.8 percent of Roth IRA assets were invested in money market funds.

FIGURE 6.1

Equity Holdings Figure Prominently in Roth IRA Investments

Percentage of Roth IRA balances, year-end 2014



¹Equity funds include equity mutual funds, equity closed-end funds, and equity ETFs.

²Balanced funds invest in a mix of equities and fixed-income securities.

³Bond funds include bond mutual funds, bond closed-end funds, and bond ETFs.

⁴Other investments include certificates of deposit and unidentifiable assets.

Note: The sample is 5.4 million Roth IRA investors aged 18 or older at year-end 2014. Percentages are dollar-weighted averages. Components do not add to 100 percent because of rounding.

Source: The IRA Investor Database™

Investments in Roth IRAs in 2014 by Investor Age

Equities and equity funds were the largest component of Roth IRA investors' accounts, on average, representing 66.0 percent of Roth IRA assets at year-end 2014 (Figure 6.2). Investors also may hold equities through balanced funds; at year-end 2014, more than three-quarters (78.5 percent) of Roth IRA assets were invested in equity holdings (equities, equity funds, and the equity portion of balanced funds). The age pattern of allocation to equity holdings typically was as expected by financial theory and other research: older investors tended to have lower shares in equity holdings. Roth IRA investors younger than 50 had about 84 percent of their assets invested in equity holdings, on average. The share invested in equity holdings generally declined through the age groups, with those aged 45 to 49 having 82.7 percent of their assets invested in equity holdings and those aged 75 or older having 74.5 percent of their assets invested in equity holdings.

FIGURE 6.2

Investments in Roth IRAs in 2014 by Investor Age

Percentage of Roth IRA balance by investor age, year-end 2014

Age	Equities and equity funds ¹	Balanced funds ²				Bonds and bond funds ³	Money market funds	Other investments ⁴	Memo: equity holdings ⁵
		Equity portion		Non-equity portion					
		Target date	Non-target date	Target date	Non-target date				
18 to 24	59.4	16.1	7.6	2.2	5.1	1.9	5.2	2.5	83.1
25 to 29	58.3	19.5	5.9	2.9	4.0	2.4	5.2	1.9	83.7
30 to 34	60.6	18.9	5.2	2.8	3.5	2.9	4.9	1.2	84.7
35 to 39	65.4	14.4	5.1	2.2	3.4	3.4	5.2	1.0	84.9
40 to 44	68.7	10.1	5.2	1.9	3.5	4.0	5.6	1.0	84.0
45 to 49	69.8	7.4	5.5	2.0	3.7	4.4	6.1	1.1	82.7
50 to 54	68.3	5.6	6.2	2.3	4.2	5.5	6.6	1.3	80.1
55 to 59	65.5	4.2	7.2	2.5	4.8	7.2	7.2	1.4	76.9
60 to 64	63.3	3.0	7.8	2.4	5.2	8.9	7.7	1.6	74.1
65 to 69	64.6	1.6	7.5	1.8	5.0	10.0	7.9	1.8	73.7
70 to 74	67.1	0.8	6.4	1.1	4.3	10.4	8.1	1.8	74.3
75 or older	67.9	0.4	6.2	0.8	4.2	11.0	8.0	1.5	74.5
All	66.0	6.1	6.4	2.0	4.3	6.9	6.8	1.4	78.5

¹ Equity funds include equity mutual funds, equity closed-end funds, and equity ETFs.

² Balanced funds invest in a mix of equities and fixed-income securities. The bulk of target date and lifestyle funds is counted in this category.

³ Bond funds include bond mutual funds, bond closed-end funds, and bond ETFs.

⁴ Other investments include certificate of deposits and unidentifiable assets.

⁵ Equity holdings are the sum of equities and equity funds and the equity portion of target date and non-target date balanced funds.

Note: The sample is 5.4 million Roth IRA investors aged 18 or older at year-end 2014. Percentages are dollar-weighted averages. Row percentages may not add to 100 percent because of rounding.

Source: The IRA Investor Database™

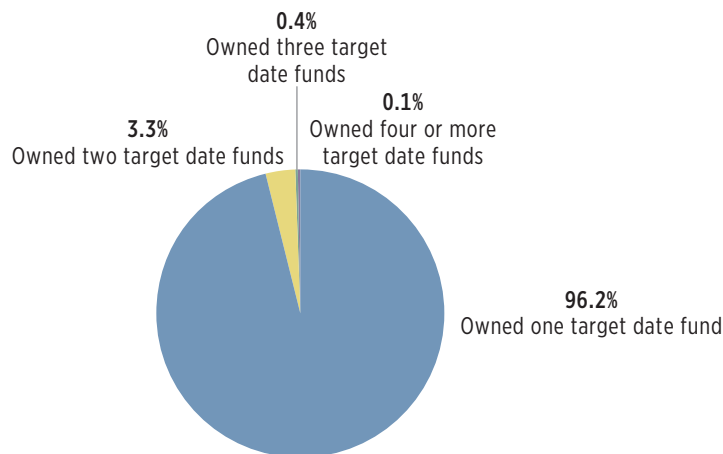
Younger Roth IRA investors tended to have more of their assets invested in target date funds, compared with older Roth IRA investors. At year-end 2014, 18.3 percent of the Roth IRA assets held by investors aged 18 to 24 was invested in target date funds, on average, and 22.4 percent of the assets held by those aged 25 to 29 was invested in target date funds (Figure 6.2). The share of target date funds then fell by age to 1.2 percent among Roth IRA investors aged 75 or older. This pattern of target date fund use was expected because target date funds are relatively new investment products and younger investors are more likely to have been introduced to them either in their 401(k) plans or if they recently opened their IRAs.⁷⁴

At year-end 2014, target date funds were 8.1 percent of Roth IRA assets and 14.1 percent of Roth IRA investors in The IRA Investor Database owned target date funds.⁷⁵ Among Roth IRA investors who owned target date funds, nearly all owned one target date fund, and the bulk of the remainder owned two (Figure 6.3). At year-end 2014, 96.2 percent of Roth IRA investors aged 18 or older who owned target date funds owned one, and another 3.3 percent owned two target date funds. Only 0.5 percent of Roth IRA investors holding target date funds owned three or more target date funds.

FIGURE 6.3

Number of Target Date Funds Owned by Roth IRA Investors in 2014

Among Roth IRA investors owning target date funds,* percentage of Roth IRA investors by number of target date funds owned; year-end 2014



* A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name.

Note: The sample is 0.8 million Roth IRA investors aged 18 or older who owned target date funds at year-end 2014.

Source: The IRA Investor Database™

Older Roth IRA investors had higher allocations to bonds and bond funds in their Roth IRAs than younger investors, which follows the typical age-based pattern of bond investing seen in other research.⁷⁶ At year-end 2014, 1.9 percent of the Roth IRA assets held by investors aged 18 to 24 were invested in bonds and bond funds, compared with 11.0 percent of the assets held by those aged 75 or older (Figure 6.2).

Money market fund allocations in Roth IRAs generally followed a rising pattern by age (Figure 6.2). At year-end 2014, Roth IRA investors younger than 40 had about 5 percent of their Roth IRA assets invested in money market funds. Roth IRA investors in their fifties had about 7 percent of their Roth IRA assets invested in money market funds, and those aged 70 or older had about 8 percent in money market funds.

Snapshots of Allocation to Equity Holdings Between 2007 and 2014

Since 2007, the percentage of Roth IRA balances invested in equity holdings (equities, equity funds, and the equity portion of balanced funds) has declined a bit. At year-end 2007, 80.6 percent of Roth IRA balances held by investors aged 18 or older was invested, on average, in equity holdings (Figure 6.4). By year-end 2014, that share had edged down to 78.5 percent. This decline occurred in the category of equities and equity funds, while the share of Roth IRA balances allocated to the equity portion of target date funds and non-target date balanced funds edged up from 10.3 percent at year-end 2007 to 12.5 percent at year-end 2014. This analysis looks at dollar-weighted averages, and some of the change reflects the relative performance of equity holdings over time.

In addition to observing how Roth IRA balances are invested in aggregate, another way to explore the changes in allocation to equity holdings is to look at the distribution of shares in equity holdings held by individual investors. Looking at the data this way shows that, while the share of balances invested in equity holdings has edged down, this is partly a move toward more-diversified portfolios. For example, at year-end 2007, 66.1 percent of Roth IRA investors had more than 80 percent of their balances invested in equity holdings, compared with 61.9 percent of Roth IRA investors at year-end 2014 (Figure 6.5). Some of this decline was balanced by an increase in more moderate allocations to equity holdings. At year-end 2007, 24.2 percent of Roth IRA investors had some equity holdings, but allocated no more than 80 percent of their account balances to equity holdings. That share rose to 28.1 percent by year-end 2014. The share of Roth IRA investors with no equity holdings only increased a bit, from 9.7 percent at year-end 2007 to 10.0 percent at year-end 2014.

FIGURE 6.4

Share of Roth IRA Balances Allocated to Equity Holdings Has Declined Since 2007

Percentage of Roth IRA balance by investor age, year-end 2007 and year-end 2014

Age	2007				2014			
	Equities and equity funds ¹	Equity portion of target date funds	Equity portion of non-target date balanced funds ²	Total	Equities and equity funds ¹	Equity portion of target date funds	Equity portion of non-target date balanced funds ²	Total
18 to 24	63.6	13.4	6.7	83.7	59.4	16.1	7.6	83.1
25 to 29	66.0	14.5	5.2	85.7	58.3	19.5	5.9	83.7
30 to 39	73.2	8.3	5.0	86.6	63.3	16.3	5.2	84.8
40 to 49	73.8	4.6	5.7	84.2	69.3	8.7	5.4	83.4
50 to 59	69.1	2.9	7.0	79.0	66.8	4.9	6.7	78.4
60 to 69	68.4	1.1	6.5	76.0	63.9	2.3	7.6	73.8
70 or older	67.9	0.2	5.8	73.9	67.5	0.6	6.3	74.4
All	70.4	4.2	6.1	80.6	66.0	6.1	6.4	78.5

¹Equity funds include equity mutual funds, equity closed-end funds, and equity ETFs.

²Balanced funds invest in a mix of equities and fixed-income securities.

Note: The samples are 3.1 million Roth IRA investors aged 18 or older at year-end 2007 and 5.4 million Roth IRA investors aged 18 or older at year-end 2014. Percentages are dollar-weighted averages. Percentages may not add to the total because of rounding.

Source: The IRA Investor Database™

FIGURE 6.5

Exposure to Equity Holdings Has Declined Among Roth IRA Investors Between 2007 and 2014

Percentage of Roth IRA investors by age, year-end 2007 and year-end 2014

Age	Percentage of account balance invested in equity holdings						
	2007						
	Zero	>0% to 20%	>20% to 40%	>40% to 60%	>60% to 80%	>80% to <100%	100%
18 to 24	10.5	0.3	0.9	2.1	16.7	25.1	44.4
25 to 29	9.3	0.5	1.2	2.4	13.1	28.3	45.3
30 to 39	8.2	0.6	1.2	2.4	12.7	22.6	52.3
40 to 49	8.8	0.8	1.5	2.8	21.0	11.6	53.6
50 to 59	10.4	1.1	2.2	6.0	20.3	11.0	49.0
60 to 69	11.8	1.3	2.7	7.0	17.6	10.8	48.7
70 or older	12.8	1.8	4.0	4.5	16.8	11.6	48.6
All	9.7	0.9	1.8	4.0	17.5	15.8	50.3
Age	2014						
	Zero	>0% to 20%	>20% to 40%	>40% to 60%	>60% to 80%	>80% to <100%	100%
	Zero	>0% to 20%	>20% to 40%	>40% to 60%	>60% to 80%	>80% to <100%	100%
18 to 24	10.8	0.4	1.1	12.9	4.8	33.0	37.0
25 to 29	10.1	0.6	1.2	11.3	6.2	35.1	35.4
30 to 39	9.0	0.7	1.3	9.9	7.4	33.0	38.7
40 to 49	9.2	0.8	1.5	10.4	10.6	23.8	43.5
50 to 59	10.1	1.1	2.1	15.9	15.4	15.2	40.3
60 to 69	11.2	1.5	3.1	22.8	11.2	14.5	35.7
70 or older	11.5	1.7	4.6	18.2	10.4	14.4	39.2
All	10.0	1.0	2.1	14.4	10.6	22.5	39.4

Note: The samples are 3.1 million Roth IRA investors aged 18 or older at year-end 2007 and 5.4 million Roth IRA investors aged 18 or older at year-end 2014. Equity holdings are the sum of equities, equity funds, and the equity portion of balanced funds. Row percentages may not add to 100 percent because of rounding.

Source: The IRA Investor Database™

Appendix

Role of IRAs in U.S. Household Balance Sheet

Traditional IRAs, the first type of IRA, were created under the Employee Retirement Income Security Act of 1974 (ERISA).⁷⁷ IRAs provide all workers with a contributory retirement savings vehicle and, through rollovers, give workers leaving jobs a means to preserve the tax benefits and growth opportunities that employer-sponsored retirement plans provide. Policymakers have since changed the rules governing traditional IRAs and have added more types of IRAs—employer-sponsored IRAs (SEP IRAs, SAR-SEP IRAs, and SIMPLE IRAs) and after-tax IRAs (Roth IRAs).

Households held \$7.3 trillion in IRAs at year-end 2015 (Figure A.1). IRAs accounted for about 10 percent of U.S. households' total financial assets. At year-end 2015, assets in traditional IRAs (the most common type of IRA) were \$6.2 trillion, or 84 percent of all IRA assets. At year-end 2015, Roth IRA assets were \$660 billion and accounted for 9 percent of all IRA assets. Assets in employer-sponsored IRAs were \$495 billion and were 7 percent of all IRA assets at year-end 2015.

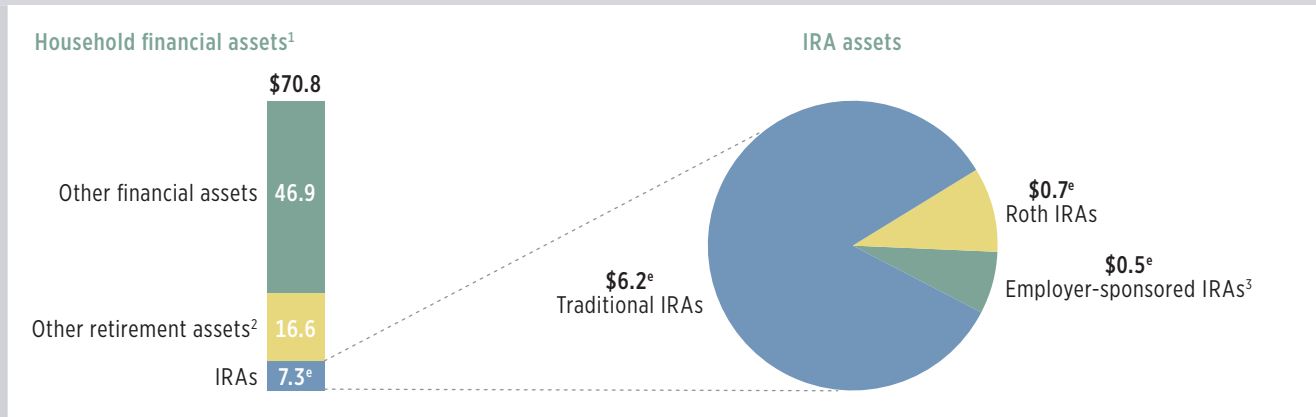
The IRA Investor Database Contains a Comprehensive Cross Section of IRA Investors

The IRA Investor Database contains a comprehensive and representative sample of IRA investors, which provides important insights into many IRA investor activities. The bulk (69 percent) of the IRA investors in the database held traditional IRAs and 81 percent of all IRA assets were in traditional IRAs at year-end 2014 (Figure A.2). More than 5 million Roth IRA investors (33 percent of IRA investors) held 12 percent of all IRA assets in the database. Employer-sponsored IRAs (SEP IRAs, SAR-SEP IRAs, and SIMPLE IRAs) represented the remainder. The distribution of IRA investors and IRA assets by type of IRA in the database is similar to the universe of IRAs tabulated by the IRS Statistics of Income Division for earlier years.⁷⁸

FIGURE A.1

Role of IRAs in U.S. Household Balance Sheet

Trillions of dollars, year-end 2015



¹Household financial assets include deposits, fixed-income securities, stocks, retirement savings, mutual funds, equity in noncorporate business, and other financial assets. Financial assets of nonprofit organizations are also included. Household financial assets do not include the household's primary residence.

²Other retirement assets include annuities and employer-sponsored defined benefit and defined contribution plans.

³Employer-sponsored IRAs include SEP IRAs, SAR-SEP IRAs, and SIMPLE IRAs.

^eData are estimated.

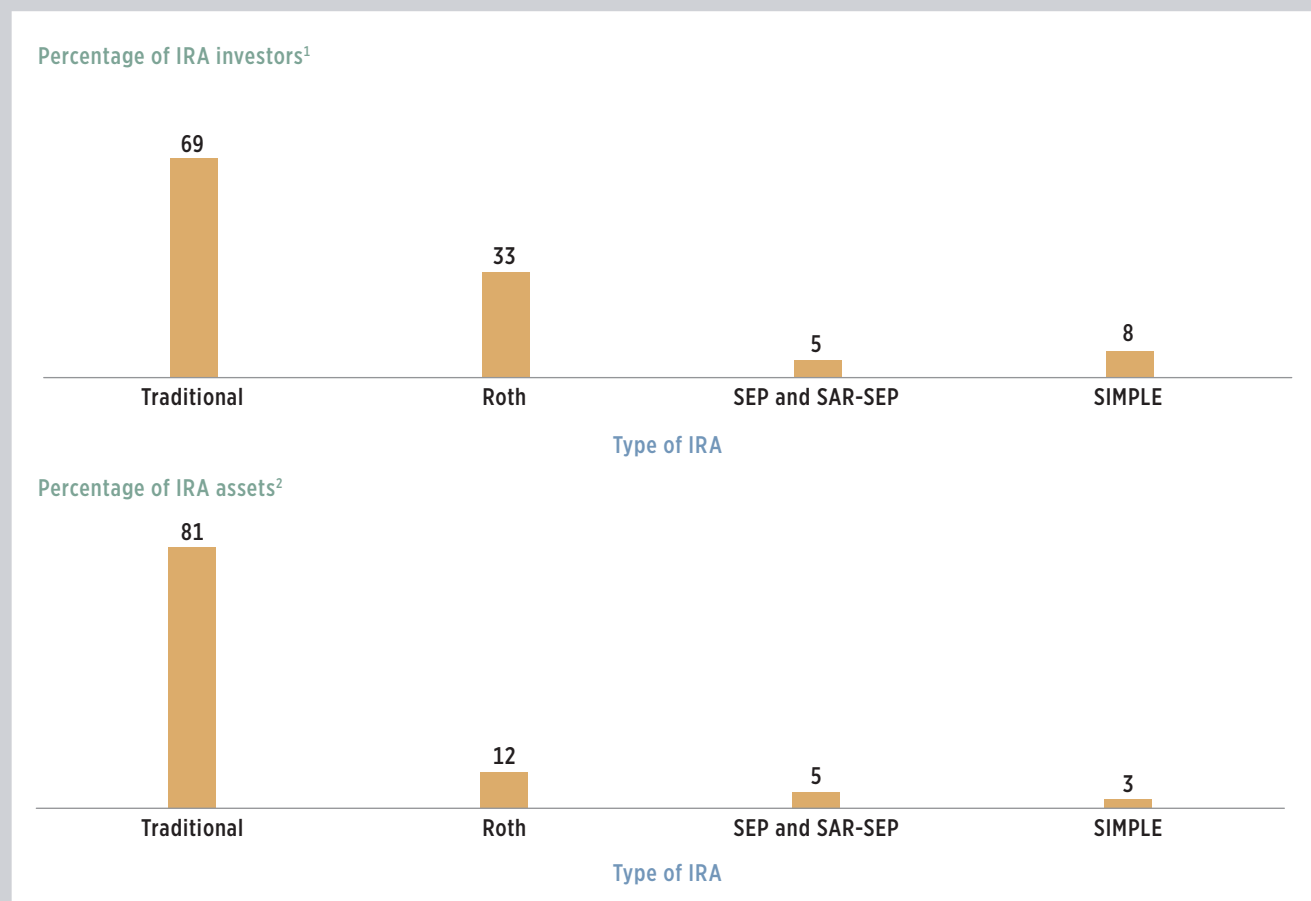
Note: Components may not add to the total because of rounding.

Sources: Investment Company Institute, Federal Reserve Board, American Council of Life Insurers, and Internal Revenue Service Statistics of Income Division; see Investment Company Institute 2016

FIGURE A.2

The IRA Investor Database Covers All IRA Types

Distribution of IRA investors and assets, percentage of total, year-end 2014



¹ These percentages add to more than 100 percent because investors may own more than one type of IRA.

² These percentages do not add to 100 percent because of rounding.

Note: The sample is 16.3 million IRA investors with \$1,543 billion in assets at year-end 2014.

Sources: The IRA Investor Database™

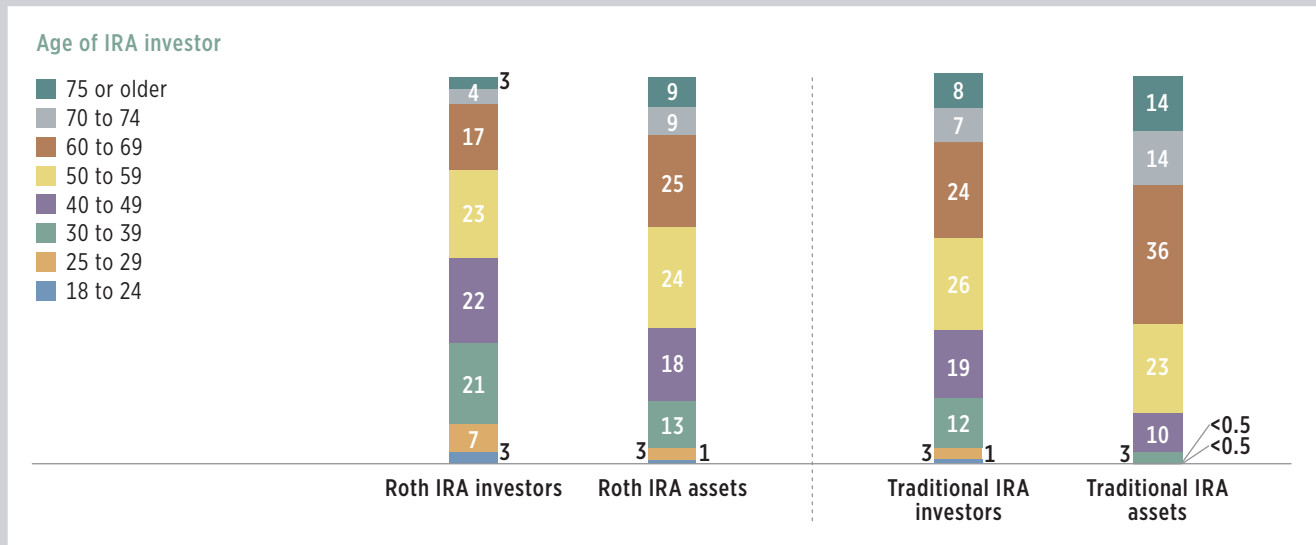
The IRA Investor Database contains investors from a wide range of ages (Figure A.3). The analysis of Roth IRA activity in this report focuses on all Roth IRA investors across both the working-age and retired populations—aged 18 or older. The bulk of investors who own Roth IRAs in the database are in their peak earning and saving years. At year-end 2014, 66 percent of Roth IRA investors were between the ages of 30 and 59. Another 17 percent were aged 60 to 69, and the remaining 16 percent were aged 18 to 29 or aged 70 or older.

Roth IRA investors tend to be younger than traditional IRA investors. For example, at year-end 2014, 53 percent of Roth IRA investors were younger than 50, compared with about 35 percent of traditional IRA investors (Figure A.3). Thirty-five percent of the assets in Roth IRAs were held by Roth IRA investors younger than 50, whereas about 13 percent of traditional IRA assets were held by traditional IRA investors younger than 50.

FIGURE A.3

Roth IRA Investors Represent a Wide Cross Section of Age Groups

Percentage of total, year-end 2014



Note: The sample is 5.4 million Roth IRA investors (aged 18 or older) holding \$181.0 billion in Roth IRA assets at year-end 2014 and 11.1 million traditional IRA investors (aged 18 or older) holding \$1,236 billion traditional IRA assets at year-end 2014. Components may not add to 100 percent because of rounding.

Source: The IRA Investor Database™

Contributions Often Were the Source of New Roth IRAs in 2014

Roth IRAs can be opened with contributions, conversions, or rollovers, but contributions tend to be the most common source for new Roth IRAs. In 2014, more than half (57.2 percent) of new Roth IRAs in The IRA Investor Database were opened with just a contribution (Figure A.4). In 2014, 6.8 percent of new Roth IRAs were opened with just a conversion, 9.3 percent were opened with just a rollover, and another 3.7 percent were opened with some combination of a contribution, conversion, or a rollover. The remaining new Roth IRAs (23.0 percent) were transfers from one financial services firm to another and thus were unlikely to represent new Roth IRAs. If these transfer accounts are excluded, 74.3 percent of new Roth IRAs in 2014 were opened exclusively with contributions.

FIGURE A.4

Sources of New Roth IRAs in 2014 by Investor Age

Roth IRA activity of new Roth IRA investors,¹ 2014

Age	New Roth IRA investors ¹		Source of new account ^{1, 2}				
	Number Thousands	Share ³ Percent	Only contribution	Only conversion	Only rollover	Combination of contribution, conversion, or rollover	Changed financial services firm ⁴
18 to 24	52.4	11.6%	81.0%	1.1%	3.0%	2.4%	12.4%
25 to 29	76.5	17.0	71.3	3.5	8.2	5.1	11.8
30 to 34	64.4	14.3	61.7	7.2	9.5	4.9	16.7
35 to 39	45.5	10.1	55.3	9.5	9.5	4.0	21.7
40 to 44	37.7	8.4	51.9	8.8	10.5	3.3	25.6
45 to 49	35.0	7.8	50.6	7.6	10.4	3.3	28.1
50 to 54	39.3	8.7	50.7	6.7	10.8	3.0	28.7
55 to 59	38.6	8.6	48.5	6.4	10.8	2.8	31.6
60 to 64	30.5	6.8	39.4	9.1	13.4	3.4	34.8
65 to 69	18.3	4.1	27.6	16.1	12.4	3.4	40.5
70 to 74	7.5	1.7	23.4	11.3	12.3	2.2	50.8
75 or older	4.3	0.9	13.4	13.9	7.5	1.1	64.0
All	449.9	100.0	57.2	6.8	9.3	3.7	23.0
Recalculated to exclude new accounts that changed financial services firms							
18 to 24	45.9	10.2%	92.5%	1.3%	3.5%	2.7%	
25 to 29	67.4	15.0	80.8	4.0	9.3	5.8	
30 to 34	53.6	11.9	74.1	8.7	11.4	5.9	
35 to 39	35.6	7.9	70.6	12.1	12.1	5.1	
40 to 44	28.0	6.2	69.8	11.8	14.1	4.4	
45 to 49	25.2	5.6	70.3	10.6	14.5	4.6	
50 to 54	28.0	6.2	71.2	9.4	15.1	4.3	
55 to 59	26.4	5.9	70.8	9.4	15.7	4.1	
60 to 64	19.9	4.4	60.4	13.9	20.5	5.2	
65 to 69	10.9	2.4	46.5	27.1	20.8	5.7	
70 to 74	3.7	0.8	47.5	23.0	25.1	4.4	
75 or older	1.5	0.3	37.3	38.7	21.0	3.1	
All	346.2	77.0	74.3	8.8	12.1	4.8	

¹ A Roth IRA was determined to be “new” in 2014 if the account did not exist in The IRA Investor Database in 2013.

² Row percentages may not add to 100 percent because of rounding.

³ Share is the percentage of the total (449,900 new Roth IRA investors).

⁴ These accounts are often asset transfers to a new provider and thus are unlikely to represent a new Roth IRA investor.

Source: The IRA Investor Database™

Exposure to Equity Holdings Among Roth IRA Investors by Account Size

Between 2007 and 2014, the share of Roth IRA balances with high concentrations in equity holdings decreased in Roth IRAs with balances of \$5,000 or less and in Roth IRAs with balances of more than \$5,000 (Figure A.5). Although the share of balances with high concentrations in equity holdings has decreased, this is partly a move toward more-diversified portfolios. For example, at year-end 2007, 65.6 percent of Roth IRA investors with Roth IRA balances of \$5,000 or less had more than 80 percent of their balances invested in equity holdings, compared with 57.8 percent at year-end 2014. For Roth IRA investors with Roth IRA balances of more than \$5,000, 68.6 percent had more than 80 percent of their balances invested in equity holdings at year-end 2007, compared with 63.2 percent at year-end 2014. Some of this decline was balanced by an increase in more moderate allocations to equity holdings for both groups of Roth IRA investors. At year-end 2007, 18.0 percent of Roth IRA investors with Roth IRA balances of \$5,000 or less had some equity holdings, but allocated no more than 80 percent of their account balances to equity holdings. That share rose to 21.0 percent by year-end 2014 for this group. For Roth IRA investors with Roth IRA balances of more than \$5,000, 24.9 percent had some equity holdings, but allocated no more than 80 percent of their account balances to equity holdings at year-end 2007. By year-end 2014, that share rose to 30.3 percent. The share of Roth IRA investors with no equity holdings increased slightly for Roth IRA investors with Roth IRA balances of \$5,000 or less between year-end 2007 and year-end 2014. For Roth IRA investors with Roth IRA balances of more than \$5,000, the share of Roth IRA investors with no equity holdings was about the same between year-end 2007 and year-end 2014.

FIGURE A.5

Exposure to Equity Holdings Among Roth IRA Investors by Account Size, 2007 and 2014*Percentage of Roth IRA investors by age, year-end 2007 and year-end 2014*

Age		Percentage of account balance invested in equity holdings						
		Zero	>0% to 20%	>20% to 40%	>40% to 60%	>60% to 80%	>80% to <100%	100%
Equity holdings in all Roth IRAs								
18 to 24	2007	10.5	0.3	0.9	2.0	15.2	25.1	46.0
	2014	10.8	0.4	1.1	12.9	4.8	33.0	37.0
25 to 29	2007	9.2	0.5	1.1	2.4	11.7	28.2	46.8
	2014	10.1	0.6	1.2	11.3	6.3	34.8	35.7
30 to 39	2007	8.2	0.6	1.2	2.4	11.2	22.6	53.8
	2014	9.0	0.7	1.3	9.9	7.4	33.0	38.7
40 to 49	2007	8.8	0.8	1.5	2.8	19.4	11.5	55.3
	2014	9.2	0.8	1.5	10.4	10.6	23.9	43.5
50 to 59	2007	10.4	1.1	2.1	6.0	18.7	11.0	50.7
	2014	10.1	1.1	2.1	15.9	15.4	15.2	40.3
60 to 69	2007	11.7	1.3	2.6	7.0	16.5	10.9	49.9
	2014	11.2	1.5	3.0	22.7	11.3	14.5	35.7
70 or older	2007	12.7	1.7	4.0	4.5	16.2	11.7	49.3
	2014	11.4	1.7	4.6	18.0	10.6	14.4	39.2
All	2007	9.6	0.9	1.8	4.0	16.0	15.8	51.9
	2014	10.0	1.0	2.1	14.3	10.7	22.5	39.4
Percentage of account balance invested in equity holdings								
Age		Zero	>0% to 20%	>20% to 40%	>40% to 60%	>60% to 80%	>80% to <100%	100%
Equity holdings in Roth IRAs with balances of \$5,000 or less								
18 to 24	2007	14.5	0.2	0.4	1.1	17.2	24.4	42.1
	2014	14.8	0.3	0.7	13.2	3.2	32.4	35.4
25 to 29	2007	15.8	0.4	0.6	1.3	11.7	24.8	45.4
	2014	18.2	0.5	0.7	12.9	3.7	27.6	36.4
30 to 39	2007	15.7	0.5	0.7	1.4	10.5	19.0	52.3
	2014	20.3	0.6	0.8	11.5	4.0	22.0	40.8
40 to 49	2007	15.9	0.5	0.7	1.4	19.2	6.8	55.4
	2014	21.5	0.7	0.9	11.4	6.2	15.4	44.0
50 to 59	2007	17.1	0.5	0.9	3.7	16.0	6.5	55.4
	2014	22.2	0.7	1.0	15.6	9.5	9.0	42.0
60 to 69	2007	19.0	0.6	0.9	4.4	13.2	6.6	55.3
	2014	25.0	0.9	1.3	21.1	4.3	8.7	38.9
70 or older	2007	21.6	0.6	2.2	1.3	12.8	5.7	55.8
	2014	27.9	1.0	2.7	16.9	3.6	8.3	39.8
All	2007	16.4	0.5	0.8	2.1	14.6	13.2	52.4
	2014	21.2	0.6	1.0	13.9	5.5	17.1	40.7

Continued on the next page

FIGURE A.5 CONTINUED

Exposure to Equity Holdings Among Roth IRA Investors by Account Size, 2007 and 2014

Percentage of Roth IRA investors by age, year-end 2007 and year-end 2014

Age		Percentage of account balance invested in equity holdings						
		Zero	>0% to 20%	>20% to 40%	>40% to 60%	>60% to 80%	>80% to <100%	100%
Equity holdings in Roth IRAs with balances of more than \$5,000								
18 to 24	2007	5.2	0.5	1.5	3.2	12.7	25.9	50.9
	2014	6.2	0.6	1.5	12.6	6.7	33.7	38.8
25 to 29	2007	4.3	0.6	1.5	3.2	11.6	30.8	47.9
	2014	5.2	0.6	1.5	10.4	7.8	39.2	35.2
30 to 39	2007	4.1	0.7	1.5	3.0	11.6	24.5	54.6
	2014	4.7	0.7	1.5	9.2	8.7	37.3	37.9
40 to 49	2007	5.5	0.9	1.8	3.4	19.5	13.6	55.2
	2014	5.3	0.9	1.7	10.1	12.0	26.6	43.4
50 to 59	2007	8.1	1.3	2.6	6.8	19.6	12.6	49.2
	2014	6.9	1.2	2.4	15.9	16.9	16.8	39.8
60 to 69	2007	9.6	1.6	3.1	7.8	17.4	12.1	48.3
	2014	8.6	1.7	3.4	23.0	12.7	15.6	35.1
70 or older	2007	10.7	2.0	4.4	5.2	16.9	13.0	47.8
	2014	9.1	1.8	4.9	18.1	11.6	15.3	39.1
All	2007	6.6	1.1	2.2	4.9	16.7	17.0	51.6
	2014	6.5	1.1	2.4	14.5	12.3	24.2	39.0

Note: The samples are 3.1 million Roth IRA investors aged 18 or older at year-end 2007 and 5.4 million Roth IRA investors aged 18 or older at year-end 2014. There are 1.0 million Roth IRA investors aged 18 or older with Roth IRA balances of \$5,000 or less at year-end 2007 and 1.3 million at year-end 2014. There are 2.1 million Roth IRA investors aged 18 or older with Roth IRA balances of more than \$5,000 at year-end 2007 and 4.1 million at year-end 2014. Equity holdings are the sum of equities, equity funds, and the equity portion of balanced funds. Row percentages may not add to 100 percent because of rounding.

Source: The IRA Investor Database™

Notes

- ¹ Prior to 2010, there were restrictions on conversions based on household income. In 2010, the income limits for Roth conversions were lifted. For additional detail, see Internal Revenue Service 2011.
- ² Individuals with inherited Roth IRAs must take distributions from the accounts. See note 67 and Internal Revenue Service 2016b.
- ³ Individuals with inherited Roth IRAs must take distributions from the accounts. See note 67 and Internal Revenue Service 2016b.
- ⁴ See Holden et al. 2005.
- ⁵ See Holden and Bass 2016 and Holden and Schrass 2016a and 2016b.
- ⁶ See Holden and Schrass 2016b.
- ⁷ See Holden and Bass 2016.
- ⁸ For more information on traditional IRA withdrawal activity, see Holden and Bass 2016 and Holden and Schrass 2016a and 2016b. For information on retirement plan participants' reactions to the RMD suspension of 2009, see Brown, Poterba, and Richardson 2014. For a discussion of how RMD rules affect traditional IRA withdrawals, see Mortenson, Schramm, and Whitten 2016.
- ⁹ See Holden and Bass 2016.
- ¹⁰ Ibid.
- ¹¹ Ibid.
- ¹² Ibid.
- ¹³ Ibid.
- ¹⁴ For a history of IRAs, see Holden et al. 2005.
- ¹⁵ For additional discussion of IRA-owning households, see Holden and Schrass 2016a and 2016b.
- ¹⁶ ICI reports total IRA assets and total retirement market assets on a quarterly basis. For additional information on the U.S. retirement market through 2016:Q1, see Investment Company Institute 2016.
- ¹⁷ See Holden and Schrass 2016a and Investment Company Institute 2016.

¹⁸ For a history of IRAs, see Holden et al. 2005. For a discussion of the changes to IRAs included in the Taxpayer Relief Act of 1997, see Joint Committee on Taxation 1997 (page 43), which indicates that Roth IRAs were created because “Congress believed that some individuals would be more likely to save if funds set aside in a tax-favored account could be withdrawn without tax after a reasonable holding period for retirement or certain special purposes. Some taxpayers might find such a vehicle more suitable for their savings needs.”

¹⁹ See Investment Company Institute 2016.

²⁰ See Internal Revenue Service 2016b for the complete requirements for qualified Roth distributions.

²¹ Individuals with inherited Roth IRAs must take distributions from the accounts. See Internal Revenue Service 2016b.

²² One of the frequently analyzed household surveys is the Survey of Consumer Finances (SCF), which is administered by the Federal Reserve Board. The SCF is a triennial interview survey of U.S. families sponsored by the Board of Governors of the Federal Reserve System and the U.S. Department of Treasury. The sample design of the survey aims to measure a broad range of financial characteristics. The sample has two parts: (1) a standard geographically based random sample and (2) a specially constructed oversampling of wealthy families. Weights are used to combine the two samples to represent the full population of U.S. families. The 2013 SCF interviewed 6,026 families, which represent 122.5 million families. For an overview of the 2013 SCF results, see Bricker et al. 2014. For a full description of the SCF and recent SCF data, see www.federalreserve.gov/econresdata/scf/scfindex.htm.

For an overview of the 2010 SCF results, see Bricker et al. 2012. For a special panel analysis that resurveyed households from the 2007 SCF in 2009, see Bricker et al. 2011. For an overview of the 2007 SCF results, see Bucks et al. 2009. For an analysis of changes in retirement wealth, see Devlin-Foltz et al. 2015.

Researchers interested in the behavior of older households use another publicly available household survey, the Health and Retirement Study (HRS), which is administered by the University of Michigan. For an extensive bibliography of papers using HRS data, see www.umich.edu/~hrswww/pubs/biblio.html.

Another household survey that is often used is the Survey of Income and Program Participation (SIPP), which is administered by the U.S. Census Bureau. For a complete description, see www.census.gov/sipp.

²³ ICI conducts the Annual Mutual Fund Shareholder Tracking Survey each year to gather information on the demographic and financial characteristics of mutual fund-owning households in the United States. The most recent survey was conducted from May to July 2015 and was based on a dual frame sample of 6,000 U.S. households. Of these, 3,000 households were from a landline random digit dial (RDD) frame and 3,000 households were from a cell phone RDD frame. Of the households contacted, 1,938 (32.3 percent) owned IRAs. All interviews were conducted over the telephone with the member of the household who was either the sole or the co-decisionmaker most knowledgeable about the household’s savings and investments. The standard error for the 2015 sample of households is ± 1.3 percentage points at the 95 percent confidence level. For the 2015 survey results, see Burham, Bogdan, and Schrass 2015. For reporting of 2015 IRA incidence, see Holden and Schrass 2016a.

- ²⁴ ICI typically conducts the IRA Owners Survey each year to gather information on the characteristics and activities of IRA-owning households in the United States. The most recent survey was conducted from May to July 2015 and was based on a dual frame telephone sample of 3,200 randomly selected, representative U.S. households owning traditional IRAs, Roth IRAs, and employer-sponsored IRAs (SEP IRAs, SAR-SEP IRAs, and SIMPLE IRAs). The 2015 sample included 2,200 households from a landline RDD frame and 1,000 households from a cell phone RDD frame. All interviews were conducted over the telephone with the member of the household aged 18 or older who was the sole or co-decisionmaker most knowledgeable about the household's savings and investments. The standard error for the total sample is ± 1.7 percentage points at the 95 percent confidence level. IRA ownership does not include ownership of Coverdell Education Savings Accounts (formerly called education IRAs). For results from the 2015 survey, see Holden and Schrass 2016a and 2016b.
- ²⁵ For example, in the 2013 Survey of Consumer Finances, 10.5 percent of U.S. households owned Roth IRAs, based on 747 respondents indicating they had Roth IRAs. In the 2015 ICI Annual Mutual Fund Shareholder Tracking Survey, 16.3 percent of U.S. households indicated they owned Roth IRAs, and in the ICI IRA Owners Survey, 1,337 respondents had Roth IRAs.
- ²⁶ For the latest published tabulations, see Bryant and Gober 2013. For the 2011 and 2012 data, see Internal Revenue Service 2015. For the 2013 data, see Internal Revenue Service, Statistics of Income Division 2016.
- ²⁷ Though it is possible to track the same individuals over time within the same data provider, it is not possible to link individuals across providers. Therefore, it is possible that some IRA investors will be counted more than once if they own IRAs across multiple service providers. For additional detail on the variables collected and the data collection methodology, see Holden and Bass 2012.
- ²⁸ These percentages add to more than 100 percent because individuals may hold more than one type of IRA.
- ²⁹ Another significant annual drop occurred in 1937, when large-cap stocks contracted 35.0 percent in value. See Morningstar 2015.
- ³⁰ This change is based on the S&P 500 total return index.
- ³¹ See Citigroup corporate 10+ year bond index.
- ³² See National Bureau of Economic Research 2010.
- ³³ For unemployment statistics, see U.S. Bureau of Labor Statistics 2016. For information on households' balance sheets and disposable personal income, see U.S. Federal Reserve Board 2016.
- ³⁴ See Standard & Poor's Case-Shiller Home Price Indices.
- ³⁵ The ability to contribute to Roth IRAs is restricted based on household income. Prior to 2010, there were restrictions on conversions based on household income; starting in 2010, the income limits for Roth conversions were lifted. For additional detail, see Internal Revenue Service 2011 and 2016a.
- ³⁶ The ability to roll over non-Roth employer-sponsored retirement plan accounts to Roth IRAs was initially subject to the same income restrictions as conversions. Income restrictions on conversions were lifted in 2010. See Internal Revenue Service 2009 and 2011.
- ³⁷ Some of the amounts converted include amounts originating in employer-sponsored retirement plans that were rolled over to traditional IRAs and then converted.

- ³⁸ Distributions also can result from recharacterization of contributions, but statistically, these amounts have been negligible.
- ³⁹ In 1998, individuals doing Roth IRA conversions could spread the tax bill generated over four years (1998 to 2001). In 1998, \$39.3 billion was converted (see Figure 1.2). For more information, see discussion in Campbell, Parisi, and Balkovic 2000. In 2010, individuals doing Roth IRA conversions could choose to pay the taxes in 2011 and 2012. For more information, see Internal Revenue Service 2011.
- ⁴⁰ See Bryant and Gober 2013. For the 2011 and 2012 Roth IRA conversion data, see Internal Revenue Service 2015. For the 2013 Roth IRA conversion data, see Internal Revenue Service, Statistics of Income Division 2016.
- ⁴¹ See note 35.
- ⁴² Conversion rates are lower among these consistent Roth IRA investors than in the annual cross-sectional snapshots (see Figure 3.1) because conversions can open new Roth IRAs (see Figures 3.2 and 2.1). The consistent Roth IRA investors have existing Roth IRAs by 2008.
- ⁴³ For a complete discussion of the specific rules and the change, see Internal Revenue Service 2009.
- ⁴⁴ See Internal Revenue Service 2016b.
- ⁴⁵ Inherited Roth IRAs are subject to RMD rules. See Internal Revenue Service 2016b.
- ⁴⁶ See Sabelhaus, Bogdan, and Schrass 2008.
- ⁴⁷ Because no target date funds have a 100 percent equity allocation, investors with a 100 percent allocation to target date funds would not be counted as having 100 percent equity holdings.
- ⁴⁸ See Sabelhaus, Bogdan, and Schrass 2008.
- ⁴⁹ At year-end 2007, 48.8 percent of consistent Roth IRA investors aged 25 to 59 at year-end 2014 had less than a full allocation to equity holdings, including 8.8 percent who had no equity holdings at all (see Figures 1.9 and 1.10). At year-end 2014, 55.5 percent had less than a full allocation to equity holdings, including 9.2 percent who had no equity holdings at all (see Figures 1.9 and 1.10).
- ⁵⁰ See Investment Company Institute 2016.
- ⁵¹ There are income limits on eligibility to make Roth IRA contributions. See Internal Revenue Service 2016a.
- ⁵² For example, in 2014, contribution rates among Roth IRA investors aged 25 to 69 increased from 32.7 percent to 36.9 percent if contributions to traditional IRAs at the same financial services firm were included.
- ⁵³ For traditional IRA contribution activity in 2014, see Holden and Bass 2016.
- ⁵⁴ Some of the amounts converted include amounts originating in employer-sponsored retirement plans that were rolled over to traditional IRAs and then converted. Generally the assets converted are taxable in the year of the conversion to the Roth IRA. See Internal Revenue Service 2016a.
- ⁵⁵ A Roth IRA rollover may include the transfer of an investor's assets from a designated Roth account such as a Roth 401(k) to a Roth IRA—due to changing jobs, for instance—without tax consequences. A Roth IRA rollover also may include the transfer of non-Roth employer-sponsored retirement plan accounts into Roth IRAs (which is generally taxable in the year of the rollover).

- ⁵⁶ See Internal Revenue Service 2011.
- ⁵⁷ The investor may have a traditional IRA that has been open for many years, or may have rollovers from employer-sponsored retirement plans in the traditional IRAs. The EBRI/ICI 401(k) database finds that 401(k) balances tend to rise with investor age and job tenure (see Holden et al. 2016). In addition, at retirement, defined contribution plan account owners often choose to roll over their balances to IRAs. See Sabelhaus, Bogdan, and Holden 2008 and Utkus and Young 2016.
- ⁵⁸ Individuals may have significant accumulations outside of Roth IRAs, perhaps through the higher contribution limits for employer-sponsored retirement plans, the steady buildup of assets that can occur in these plans over the course of a career, and the longer availability of traditional IRAs. Though direct rollovers from employer-sponsored retirement plans to Roth IRAs have not always been permitted, individuals have had (and still have) the option of rolling over those accumulations into a traditional IRA and then converting the traditional IRA into a Roth IRA. Household survey information indicates that 22 percent of Roth IRA-owning households reported that some of their Roth IRA assets were initially in an employer-sponsored retirement plan; see Holden and Schrass 2016b.
- ⁵⁹ See Holden and Schrass 2016b.
- ⁶⁰ This statistic undercounts the percentage of Roth IRA investors in 2014 with rollovers in their Roth IRAs because some may have had rollovers prior to 2007 and those rollovers cannot be identified in the database. In addition, rollovers made at a prior financial services firm cannot be identified in the database.
- ⁶¹ See Holden and Bass 2016.
- ⁶² See Investment Company Institute 2016; Bryant and Gober 2013; Internal Revenue Service 2015; and Internal Revenue Service, Statistics of Income Division 2016. In addition, \$4.7 billion was rolled over into SEP IRAs and SAR-SEP IRAs in 2013.
- ⁶³ See Sabelhaus and Schrass 2009; Holden, Sabelhaus, and Bass 2010b; and Holden and Bass 2016.
- ⁶⁴ See Holden and Schrass 2016a and 2016b.
- ⁶⁵ For the complete rules governing distributions from Roth IRAs, see Internal Revenue Service 2016b.
- ⁶⁶ For more information, see Internal Revenue Service 2016b.
- ⁶⁷ Individuals with inherited Roth IRAs must take distributions from the inherited Roth IRA. In general, the entire balance of the inherited Roth IRA must be distributed by the end of the fifth calendar year after the year of the owner's death unless the balance is paid out to the beneficiary over the life or life expectancy of the beneficiary. See Internal Revenue Service 2016b.
- ⁶⁸ See Internal Revenue Service 2016a for investment restrictions. Roth IRA investors can generally select from the full range of mutual funds, ETFs, closed-end funds, stocks, bonds, bank, and annuity products.
- ⁶⁹ Though the IRS Statistics of Income Division is able to aggregate IRAs across financial services providers for a given taxpayer, The IRA Investor Database is not. Nevertheless, The IRA Investor Database has comparable average Roth IRA balances. For example, at year-end 2013, the average Roth IRA balance in the database is \$31,010, compared with \$30,295 reported by the IRS (2013 is the latest published IRS data available). See Internal Revenue Service, Statistics of Income Division 2016.

- ⁷⁰ In The IRA Investor Database it is not possible to determine the tenure of existing IRAs. ICI household surveys find that traditional and Roth IRA balances tend to increase with length of IRA ownership (see Holden and Schrass 2016b). Similarly, 401(k) balances tend to increase with job tenure (see Holden et al. 2016).
- ⁷¹ The IRS Statistics of Income data also find that taxpayers with Roth IRAs have, on average, less than taxpayers with traditional IRAs. At year-end 2013, the average balance among taxpayers with Roth IRAs was \$30,295, compared with an average of \$129,730 in traditional IRAs. See Internal Revenue Service, Statistics of Income Division 2016.
- ⁷² Household survey data indicate that Roth IRA-owning households hold their Roth IRAs at a variety of financial services firms. In 2015, 77 percent of Roth IRA-owning households held their Roth IRAs through investment professionals (e.g., full-service brokers, independent financial planning firms, bank or savings institutions, or insurance companies) and 27 percent held their Roth IRAs through direct sources (e.g., mutual fund companies or discount brokers). See Holden and Schrass 2016b.
- ⁷³ A target date fund pursues a long-term investment strategy, using a mix of asset classes, or asset allocation, that the fund provider adjusts to become less focused on growth and more focused on income as the fund approaches and passes the target date, which is usually mentioned in the fund's name. The asset allocation path that the target date fund follows to shift its focus from growth to income over time is typically referred to as the "glide path." Because discussions of asset allocation usually focus on the percentage of the portfolio invested in equities, the glide path generally reflects the declining percentage of equities in the portfolio as it approaches and passes the target date. The target date generally is the date at which the typical investor for whom that fund is designed would reach retirement age and stop making new investments in the fund. For additional information on target date funds, see ICI's Target Retirement Date Funds Resource Center at www.ici.org/trdf.
- ⁷⁴ For the pattern of use of target date funds in 401(k) plans, see Holden et al. 2016.
- ⁷⁵ Target date fund use is more widespread among 401(k) plan participants. At year-end 2013, 47.6 percent of 401(k) plan participants invested at least some of their accounts in target date funds (including target date mutual funds and target date collective investment trusts); see Holden et al. 2016. Target date fund use is similar among traditional IRA investors and Roth IRA investors, despite more direct influence of rollovers on traditional IRAs. At year-end 2014, 12.3 percent of traditional IRA investors held target date funds, and target date funds were 6.6 percent of traditional IRA assets; see Holden and Bass 2016.
- ⁷⁶ For a discussion of how U.S. household investments change over the life cycle, see Sabelhaus, Bogdan, and Schrass 2008. For the pattern of equity versus bond investing across 401(k) participants by age, see Holden et al. 2016. For the pattern of equity versus bond investing across traditional IRA investors by age, see Holden and Bass 2016.
- ⁷⁷ For a history of IRAs, see Holden et al. 2005.
- ⁷⁸ See Bryant and Gober 2013; Internal Revenue Service 2015; and Internal Revenue Service, Statistics of Income Division 2016.

References

Bricker, Jesse, Brian Bucks, Arthur Kennickell, Traci Mach, and Kevin Moore. 2011. "Surveying the Aftermath of the Storm: Changes in Family Finances from 2007 to 2009." FEDS Working Paper, no. 2011-17. Washington, DC: Federal Reserve Board (March). Available at www.federalreserve.gov/pubs/feds/2011/201117/201117pap.pdf.

Bricker, Jesse, Lisa J. Dettling, Alice Henriques, Joanne W. Hsu, Kevin B. Moore, John Sabelhaus, Jeffrey Thompson, and Richard A. Windle. 2014. "Changes in U.S. Family Finances from 2010 to 2013: Evidence from the Survey of Consumer Finances." *Federal Reserve Bulletin* 100, no. 4 (September). Available at www.federalreserve.gov/pubs/bulletin/2014/pdf/scf14.pdf.

Bricker, Jesse, Arthur B. Kennickell, Kevin B. Moore, and John Sabelhaus. 2012. "Changes in U.S. Family Finances from 2007 to 2010: Evidence from the Survey of Consumer Finances." *Federal Reserve Bulletin* 98, no. 2 (June). Washington, DC: Federal Reserve Board. Available at www.federalreserve.gov/pubs/bulletin/2012/pdf/scf12.pdf.

Brown, Jeffrey R., James Poterba, and David Richardson. 2014. "Do Required Minimum Distributions Matter? The Effect of the 2009 Holiday on Retirement Plan Distributions." NBER Working Paper, no. 20464. Cambridge, MA: National Bureau of Economic Research. Available at www.nber.org/papers/w20464.

Bryant, Victoria L. 2008. "Accumulation and Distribution of Individual Retirement Arrangements, 2004." *Statistics of Income Bulletin* (Spring): 90–101. Washington, DC: Internal Revenue Service Statistics of Income Division. Available at www.irs.gov/pub/irs-soi/04inretirebul.pdf.

Bryant, Victoria L. 2012. "Accumulation and Distribution of Individual Retirement Arrangements, 2008." *Statistics of Income Bulletin* (Spring): 89–104. Washington, DC: Internal Revenue Service Statistics of Income Division. Available at www.irs.gov/pub/irs-soi/12insprbulretirement.pdf.

Bryant, Victoria L., and Jon Gober. 2013. "Accumulation and Distribution of Individual Retirement Arrangements, 2010." *Statistics of Income Bulletin* (Fall): 193–210. Washington, DC: Internal Revenue Service Statistics of Income Division. Available at www.irs.gov/pub/irs-soi/13inirafallbul.pdf.

Bryant, Victoria L., and Peter J. Sailer. 2006. "Accumulation and Distribution of Individual Retirement Arrangements, 2001–2002." *Statistics of Income Bulletin* (Spring): 233–254. Washington, DC: Internal Revenue Service Statistics of Income Division. Available at www.irs.gov/pub/irs-soi/02iraart.pdf.

Bucks, Brian K., Arthur B. Kennickell, Traci L. Mach, and Kevin B. Moore. 2009. "Changes in U.S. Family Finances from 2004 to 2007: Evidence from the Survey of Consumer Finances." *Federal Reserve Bulletin* 95 (February). Washington, DC: Federal Reserve Board. Available at www.federalreserve.gov/pubs/bulletin/2009/pdf/scf09.pdf.

Burham, Kimberly, Michael Bogdan, and Daniel Schrass. 2015. "Ownership of Mutual Funds, Shareholder Sentiment, and Use of the Internet, 2015." *ICI Research Perspective* 21, no. 5 (November). Available at www.ici.org/pdf/per21-05.pdf.

Campbell, David, Michael Parisi, and Brian Balkovic. 2000. "Individual Income Tax Returns, 1998." *Statistics of Income Bulletin* (Fall): 8–46. Washington, DC: Internal Revenue Service Statistics of Income Division. Available at www.irs.gov/pub/irs-soi/98indtr.pdf.

Citigroup corporate 10+ year bond index. New York: Citigroup.

Devlin-Foltz, Sebastian, Alice M. Henriques, and John Sabelhaus. 2015. "The Evolution of Retirement Wealth," FEDS Working Paper, no. 2015-009. Washington, DC: Federal Reserve Board (February). Available at www.federalreserve.gov/econresdata/feds/2015/files/2015009pap.pdf.

Holden, Sarah, and Steven Bass. 2011. "The IRA Investor Profile: Traditional IRA Investors' Asset Allocation, 2007 and 2008." *ICI Research Report* (September). Available at www.ici.org/pdf/rpt_11_ira_asset.pdf.

Holden, Sarah, and Steven Bass. 2012. "The IRA Investor Profile: Traditional IRA Investors' Withdrawal Activity 2007 and 2008." *ICI Research Report* (July). Available at www.ici.org/pdf/rpt_12_ira_withdrawals.pdf.

Holden, Sarah, and Steven Bass. 2013. "The IRA Investor Profile: Traditional IRA Investors' Activity, 2007–2011." *ICI Research Report* (October). Available at www.ici.org/pdf/rpt_13_ira_investors.pdf.

Holden, Sarah, and Steven Bass. 2014. "The IRA Investor Profile: Traditional IRA Investors' Activity, 2007–2012." *ICI Research Report* (March). Available at www.ici.org/pdf/rpt_14_ira_traditional.pdf.

Holden, Sarah, and Steven Bass. 2015. "The IRA Investor Profile: Traditional IRA Investors' Activity, 2007–2013." *ICI Research Report* (July). Available at www.ici.org/pdf/rpt_15_ira_traditional.pdf.

Holden, Sarah, and Steven Bass. 2016. "The IRA Investor Profile: Traditional IRA Investors' Activity, 2007–2014." *ICI Research Report* (August). Available at www.ici.org/pdf/rpt_16_ira_traditional.pdf.

Holden, Sarah, Kathy Ireland, Vicky Leonard-Chambers, and Michael Bogdan. 2005. "The Individual Retirement Account at Age 30: A Retrospective." *Investment Company Institute Perspective* 11, no. 1 (February). Available at www.ici.org/pdf/per11-01.pdf.

Holden, Sarah, and Brian Reid. 2008. "The Role of Individual Retirement Accounts in U.S. Retirement Planning." In *Recalibrating Retirement Spending and Saving*, edited by John Ameriks and Olivia S. Mitchell: 81–111. Oxford: Oxford University Press for the Wharton School, University of Pennsylvania, Pension Research Council.

Holden, Sarah, John Sabelhaus, and Steven Bass. 2010a. "The IRA Investor Profile: Traditional IRA Investors' Contribution Activity, 2007 and 2008." *ICI Research Report* (July). Available at www.ici.org/pdf/rpt_10_ira_contributions.pdf.

Holden, Sarah, John Sabelhaus, and Steven Bass. 2010b. "The IRA Investor Profile: Traditional IRA Investors' Rollover Activity, 2007 and 2008." *ICI Research Report* (December). Available at www.ici.org/pdf/rpt_10_ira_rollovers.pdf.

Holden, Sarah, and Daniel Schrass. 2016a. "The Role of IRAs in U.S. Households' Saving for Retirement, 2015." *ICI Research Perspective* 22, no. 1 (February). Available at www.ici.org/pdf/per22-01.pdf.

Holden, Sarah, and Daniel Schrass. 2016b. "Appendix: Additional Data on IRA Ownership in 2015." *ICI Research Perspective* 22, no. 1A (February). Available at www.ici.org/pdf/per22-01a.pdf.

Holden, Sarah, Jack VanDerhei, Luis Alonso, and Steven Bass. 2016. "401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2014." *ICI Research Perspective* 22, no. 3, and *EBRI Issue Brief*, no. 423 (April). Available at www.ici.org/pdf/per22-03.pdf.

Internal Revenue Service. 2009. *Publication 590, Individual Retirement Arrangements (IRAs): For Use in Preparing 2008 Returns*. Available at www.irs.gov/pub/irs-prior/p590--2008.pdf.

Internal Revenue Service. 2011. *Publication 590, Individual Retirement Arrangements (IRAs): For Use in Preparing 2010 Returns*. Available at www.irs.gov/pub/irs-prior/p590--2010.pdf.

Internal Revenue Service. 2013. *Individual Income Tax Returns 2011, Publication 1304* (Rev. 08-2013, July). Washington, DC: Internal Revenue Service Statistics of Income Division. Available at www.irs.gov/pub/irs-soi/11inalcr.pdf.

Internal Revenue Service. 2015. *Accumulation and Distribution of Individual Retirement Arrangements, 2000–2012*. Available at www.irs.gov/uac/SOI-Tax-Stats-Special-Studies-on-Individual-Tax-Return-Data#ira.

Internal Revenue Service. 2016a. *Publication 590-A, Contributions to Individual Retirement Arrangements (IRAs) for Use in Preparing 2015 Returns*. Available at www.irs.gov/pub/irs-pdf/p590a.pdf.

Internal Revenue Service. 2016b. *Publication 590-B, Distributions from Individual Retirement Arrangements (IRAs) for Use in Preparing 2015 Returns*. Available at www.irs.gov/pub/irs-pdf/p590b.pdf.

Internal Revenue Service, Statistics of Income Division. 2016. IRA data for 2013. Available at www.irs.gov/pub/irs-soi/13in01ira.xls.

Investment Company Institute. 2016. “The U.S. Retirement Market, First Quarter 2016” (June). Available at www.ici.org/info/ret_16_q1_data.xls.

Joint Committee on Taxation. 1997. “General Explanation of Tax Legislation Enacted in 1997” (December). Washington, DC: U.S. Government Printing Office. Available at <http://www.jct.gov/publications.html?func=startdown&id=1215>.

Joint Committee on Taxation. 2009. “General Explanation of Tax Legislation Enacted in the 110th Congress” (March). Available at www.jct.gov/publications.html?func=startdown&id=1990.

Morningstar. 2015. *Ibbotson S&P 500 2015 Classic Yearbook: Market Results for Stocks, Bonds, Bills, and Inflation 1926–2014*. Chicago: Morningstar Inc.

Mortenson, Jacob A., Heidi R. Schramm, and Andrew Whitten. 2016. “The Effect of Required Minimum Distribution Rules on Withdrawals from Traditional Individual Retirement Accounts” (May). Available at <http://ssrn.com/abstract=2764435>.

National Bureau of Economic Research. 2010. *U.S. Business Cycle Expansions and Contractions*. Cambridge, MA: National Bureau of Economic Research. Available at www.nber.org/cycles/cyclesmain.html

Sabelhaus, John, Michael Bogdan, and Sarah Holden. 2008. *Defined Contribution Plan Distribution Choices at Retirement: A Survey of Employees Retiring Between 2002 and 2007*. Washington, DC: Investment Company Institute. Available at www.ici.org/pdf/rpt_08_dcdd.pdf.

Sabelhaus, John, Michael Bogdan, and Daniel Schrass. 2008. *Equity and Bond Ownership in America, 2008*. Washington, DC: Investment Company Institute (December). Available at www.ici.org/pdf/rpt_08_equity_owners.pdf.

Sabelhaus, John, and Daniel Schrass. 2009. "The Evolving Role of IRAs in U.S. Retirement Planning." *Investment Company Institute Perspective* 15, no. 3 (November). Available at www.ici.org/pdf/per15-03.pdf.

Sailer, Peter J., and Sarah E. Nutter. 2004. "Accumulation and Distribution of Individual Retirement Arrangements, 2000." *Statistics of Income Bulletin* (Spring): 121–134. Washington, DC: Internal Revenue Service. Available at www.irs.gov/pub/irs-soi/00retire.pdf.

Sailer, Peter J., Michael E. Weber, and Kurt S. Gurka. 2003. "Are Taxpayers Increasing the Buildup of Retirement Assets? Preliminary Results from a Matched File of Tax Year 1999 Tax Returns and Information Returns." In *Proceedings: Ninety-Fifth Annual Conference on Taxation*, edited by Ranjana Madhusudhan: 364–369. Washington, DC: National Tax Association. Available at www.irs.gov/pub/irs-soi/petenta.pdf.

Standard & Poor's Case-Shiller Home Price Indices. New York: Standard & Poor's. Available at us.spindices.com/index-family/real-estate/sp-case-shiller.

U.S. Bureau of Labor Statistics. 2016. "Labor Force Statistics from the Current Population Survey." Available at data.bls.gov/timeseries/LNS14000000.

U.S. Federal Reserve Board. 2016. *Financial Accounts of the United States: Flow of Funds, Balance Sheets, and Integrated Macroeconomic Accounts, First Quarter 2016, Z.1 Release* (June). Washington, DC: Federal Reserve Board. Available at www.federalreserve.gov/releases/z1/Current/z1.pdf.

Utkus, Stephen P., and Jean A. Young. 2016. *How America Saves 2016: A Report on Vanguard 2015 Defined Contribution Plan Data*. Valley Forge, PA: The Vanguard Group, Vanguard Center for Retirement Research. Available at <https://institutional.vanguard.com/iam/pdf/HAS2016.pdf>.



1401 H Street, NW
Washington, DC 20005
202-326-5800
www.ici.org