

Roth contributions in retirement planning

Opportunities and strategies

Introduction

Roth contributions are a key part of retirement savings plans, allowing participants to invest after-tax dollars in accounts that grow tax-free and provide tax-free distributions if certain conditions are met. This approach differs from traditional pre-tax contributions, which delay taxation until withdrawal, making it a strategic tool for managing long-term tax liabilities amid economic uncertainty and changing tax laws. Roth gained prominence with the SECURE 2.0 Act of 2022 (SECURE 2.0), providing this timely opportunity to revisit the complexities, considerations, and benefits of Roth contributions in the retirement plan context.

The Roth IRA was established by the Taxpayer Relief Act of 1997. Named after Senator William Roth, the legislation's sponsor, this individual retirement account (IRA) is funded with after-tax contributions and tax-free earnings.¹ Beginning January 1, 2006, the Economic Growth and Tax Relief Reconciliation Act of 2001 expanded these benefits to employer-sponsored plans.² Initially optional for plans, Roth 401(k)s have gained widespread adoption, with 86% of Vanguard defined contribution plans offering

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of Vanguard defined contribution plans offering the plan feature by the end of 2024.

the plan feature by the end of 2024, indicating a significant shift toward tax-diversified savings options.³ And with SECURE 2.0 requiring Roth,⁴ that figure is expected to be closer to 100%.

Roth savings help participants build a tax-diversified portfolio, using pre-tax contributions for immediate tax benefits combined with Roth accounts for potential tax savings later. From a plan sponsor perspective, offering Roth options enhances competitiveness, potentially boosting participation, contributions, and employee satisfaction, as workers value tools that help them achieve their financial goals.

This paper will provide a comprehensive understanding of Roth opportunities, and share insights into how participants value these options, to help plan sponsors make informed decisions about plan design. We will explore recent

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regulatory changes under SECURE 2.0, which have expanded access to Roth options, as well as emerging trends, such as combining after-tax contributions with immediate Roth conversions ("mega Roth"), automatic enrollment programs that favor Roth choices, and innovative source-aware investment strategies that allocate higher-growth assets to Roth accounts to maximize tax-free growth. These developments all indicate a significant shift toward more advanced plan designs focused on participant outcomes.

Overview of Roth contributions

Roth contributions are a valuable tool for plan participants, providing them with the flexibility to optimize retirement savings according to their needs and a way to achieve tax diversification. Not all Roth contributions are the same, however. Below we discuss the various options and their potential impact.

Roth IRA contributions

Roth IRAs serve as a complementary tool to retirement plan savings. In 2025, Roth IRA contribution limits are \$7,000 for those under 50 and \$8,000 for those 50 and older, subject to income phaseouts starting at a modified adjusted gross income (MAGI) of \$150,000 for single filers and \$236,000 for joint filers.⁵ Qualified distributions remain tax-free and serve to provide a retirement vehicle for participants and retirees seeking to consolidate assets.

Roth 401(k) contributions

Roth 401(k) contributions are made with after-tax dollars, allowing for tax-free withdrawals of

both principal and earnings if the account is held for at least five years and the participant is at least 59½ years old or meets certain exceptions such as disability or death.

In 2025, individuals under age 50 can contribute up to \$23,500 to the plan. Participants age 50 or older are eligible for an additional \$7,500 catch-up contribution, while those ages 60 to 63 have a "super catch-up" limit of \$11,250.⁶ These limits considerably exceed those for Roth IRAs, making plan-based Roth accounts an excellent choice for aggressive savers. Additionally, plan sponsors often choose to match Roth contributions, along with pre-tax deferrals, up to certain levels of compensation.

Roth conversions

IRA and 401(k) retirement plans provide the option to convert pre-tax or after-tax savings to Roth accounts. When funds are converted, ordinary income tax applies to the taxable portion at the time of conversion. Earnings and converted funds are not taxed if withdrawn in accordance with qualified withdrawal requirements, including a separate five-year holding period that begins on January 1 of the year of conversion for each Roth conversion.

IRA: Unlike direct Roth IRA contributions, Roth IRA conversions do not have income limitations. This allows individuals who exceed the income

Key differences between Roth 401(k) and Roth IRA accounts

Feature	Roth 401(k)	Roth IRA
Contribution limits (2025)	\$23,500 (\$31,000, age 50 or older; \$34,750, ages 60 to 63)	\$7,000 (\$8,000, age 50 or older)
Income restrictions	None	Phaseout at \$150K to \$165K for single filers, \$240K to \$250K for joint filers
Employer match	Possible (pre-tax or Roth optional)	NA
Required minimum distributions (RMDs)	None (effective 2024)	None
Withdrawal flexibility	Tax-free after age 59½ and five years	Tax-free after age 59½ and five years; contributions withdrawable anytime tax-free
Conversions	Any pre-tax or after-tax amounts	Pre-tax and after-tax amounts pro rata across all IRAs

limits for direct contributions to use a “backdoor Roth” strategy that involves making contributions to a nondeductible traditional IRA and then converting those funds to a Roth IRA. For IRA conversions, the taxable and nontaxable portions to be converted are determined on a prorated basis across all of an individual's IRAs.

401(k): Some 401(k) plans permit participants to convert pre-tax employee savings and vested employer contributions to Roth. There are no income restrictions, and pro rata rules do not apply. A plan that also allows after-tax contributions enables the mega Roth strategy, whereby participants make after-tax contributions over the Internal Revenue Code (IRC) Section 402(g) limit and immediately convert those amounts to Roth without tax implications.

Historical context and recent legislative changes

Introduced in 2006, the Roth 401(k) allowed for Roth after-tax contributions alongside pre-tax deferrals. This new savings option filled gaps in traditional plans, offering more tax-diverse income in retirement and tax-free inheritances for heirs.⁷

By 2010, in-plan Roth conversions began, allowing participants to transfer pre-tax and/or after-tax balances to a Roth within the plan, paying taxes on the converted amount for future tax-free growth beyond standard limits. The availability of Roth conversions in plans enabled the mega Roth strategy of converting after-tax contributions when made, thereby maximizing savings up to the overall IRC Section 415(c) limit of \$70,000 in 2025 (including employer contributions).⁸

SECURE 2.0 has significantly changed the Roth landscape by requiring Roth catch-up contributions for high-income earners. Beginning in 2026, catch-up contributions for those earning \$150,000 or more in the previous calendar year must be made as Roth contributions, promoting greater after-tax savings.⁹ Required minimum distributions (RMDs) for Roth 401(k) plans were eliminated in 2024, aligning them with Roth IRA regulations.¹⁰

In 2025, super catch-up options for individuals ages 60 to 63 further support building Roth assets.¹¹ Additionally, vested employer contributions can be designated as Roth at

the participant's election beginning in 2023; however, the ability to convert any pre-tax contributions to Roth has existed since 2010 and can be accomplished at a participant's election regardless of this new rule change.¹²

Evolution of Roth

Year	Milestone
1997	Roth IRA introduced
2006	Roth 401(k) available
2010	In-plan conversions enabled
2022	SECURE 2.0 enacted
2023	Roth employer contributions available
2024	Roth 401(k) RMDs removed
2025	Super catch-ups allowed for ages 60 to 63
2026	Mandatory Roth catch-ups for high earners

Benefits of Roth 401(k) contributions

Tax-free growth and qualified withdrawals

Contributions to a Roth 401(k) are made with after-tax income, meaning that a participant has already paid taxes on that money going in. In return, all investment earnings grow tax-free, and after age 59½, and once the account has been open for at least five years, qualified withdrawals of both contributions and earnings are completely tax-free. This can lead to substantial tax savings, especially if tax rates increase in the future or if the individual is in a higher tax bracket during retirement. For example, if investments perform well over decades, the participant avoids paying taxes on potentially large, compounded gains.

Roth contributions lock in current tax rates, protecting against future tax increases. This is particularly beneficial in progressive tax systems; for example, if today's marginal rate is 22% but increases to 25% at retirement, Roth accounts provide better after-tax outcomes. In general, analysis suggests that a Roth account is advantageous when the tax rate during retirement surpasses the rate at the time of contribution, with the breakeven point occurring when both rates are identical.

The table below illustrates how a 35-year-old participant in a 22% tax bracket could fare when contributing \$10,000 pre-tax and an equal after-tax amount as Roth, assuming an 8% annual return compounded over 30 years.

Pre-tax or Roth	Tax rate	Pre-tax account	Roth account	Which is better?
Contribution at age 35	22%	\$10,000	\$7,800	
Value at retirement age of 65		\$100,627	\$78,489	
Net after-tax withdrawal	22%	\$78,489	\$78,489	Equal
Net after-tax withdrawal	12%	\$88,552	\$78,489	Pre-tax
Net after-tax withdrawal	25%	\$75,470	\$78,489	Roth

This hypothetical example does not represent the return on any particular investment and the rate is not guaranteed.

No income limits for participation

Unlike Roth IRAs, which, as noted previously, restrict eligibility for high earners, Roth 401(k) plans have no income restrictions.¹³ This makes them available to higher-income individuals who might otherwise be ineligible for similar tax-advantaged accounts, allowing them to participate in and access tax-free retirement savings.

Higher after-tax value

Participants who maximize contributions up to the 402(g) or 415(c) limit may enhance their overall after-tax savings with Roth contributions. Post-tax Roth contributions have a higher withdrawal value than pre-tax deferrals of the same amount. For example, a participant in a 25% tax bracket who saves and withdraws \$23,500 from a Roth account receives the full amount, whereas the same withdrawal of the pre-tax deferral results in only \$17,625 after taxes. By using Roth contributions, high savers can effectively exceed the pre-tax savings limits on an after-tax basis.

No RMDs during the owner’s lifetime

As part of SECURE 2.0, Roth 401(k) plans, unlike traditional 401(k) plans, no longer require RMDs starting at age 73 (or 75 for those born in 1960 or

later).¹⁴ This allows investments to keep growing tax-free indefinitely during a participant’s lifetime, giving them more control over their retirement income and potentially larger inheritances.

Employer matching contributions

Many employers offer matching contributions to Roth 401(k) plans, effectively providing "free money" that boosts retirement savings. While matches have historically been made pre-tax and to the traditional 401(k) portion (taxable upon withdrawal), plans can now also allow Roth matches and nonelective contributions, which are made on an after-tax basis.¹⁵ This benefit, available since 2023, has not seen much traction because of the increased level of administrative overhead required to collect participant elections and provide tax information. Additionally, the option to convert any vested company monies has been available since 2010 through Roth in-plan conversions.

Tax diversification and flexibility

By contributing to a Roth 401(k), a participant can create a mix of taxable and tax-free income sources in retirement. Managing the taxability of distributions from the plan throughout retirement provides flexibility in controlling tax brackets, handling future RMDs, reducing taxes on Social Security benefits, and lowering Medicare premiums. This strategy may also help an individual qualify for income-based credits and deductions and is particularly beneficial for those who are uncertain about future tax rates or their financial situation.

Benefits for heirs and estate planning

When an individual passes away, heirs can inherit Roth 401(k) assets with tax-free distributions if qualified distribution rules are met. While nonspouse heirs may need to take RMDs over 10 years, the tax-free benefit makes it a more efficient way to transfer wealth compared with traditional accounts, where withdrawals are taxed to beneficiaries.

Practical considerations for plan sponsors

Implementation of Roth options

Roth contributions are increasingly used in plans, with 18% of participants in eligible plans contributing in 2024, up from 12% in 2019.¹⁶ Plan features include options for Roth deferrals, Roth conversions, and mega Roth strategies. According to Vanguard's *How America Saves*, 36% of plans permit Roth conversions, 10% offer automatic Roth conversions, and 8% of active participants use these options.¹⁷ Adoption of the after-tax savings option required to support mega Roth has increased to 47% in 2024 for larger plans, up from 36% in 2020.¹⁸



of participants use Roth (in plans where it is offered), with annual trends indicating higher levels in the future.

Plan sponsors considering mega Roth should ensure that the Actual Contribution Percentage (ACP) compliance test for after-tax contributions and company match can be met, given the likely increase in after-tax contributions from highly compensated employees (HCEs). Non-safe harbor plans can include compliance management strategies that use excess Actual Deferral Percentage (ADP) borrowing to help pass the ACP test. Even if the ACP test fails, the refunds of excess after-tax contributions (converted to Roth) primarily consist of after-tax contributions, resulting in little additional taxable income, making the refund essentially a bonus payment for the HCE receiving it.

Plan sponsors may also consider further educating HCEs who want to save through the mega Roth option to save Roth rather than pre-tax under the ADP-tested 402(g) limit, thereby maximizing the after-tax value of those savings before making additional after-tax contributions for conversion to a Roth.

Enhanced compliance solutions for plan sponsors

A non-safe harbor 401(k) plan requires satisfaction of the ADP and ACP compliance tests. Plans that provide for a full range of Roth, Roth conversion, and after-tax contributions may have opportunities to mitigate compliance test limitations by expanding the use of Roth contributions. Plans that have compliance testing concerns often place savings percentage caps on HCEs. HCEs who contribute on a Roth basis can save larger after-tax equivalent amounts.

Plans that fail the ADP test (and have testing margin in the ACP test) may be able to recharacterize pre-tax deferrals to satisfy the ADP and ACP requirements. This testing resolution converts pre-tax contributions to after-tax contributions. The after-tax contributions can then be converted to Roth contributions through the mega Roth pathway. While the HCE will face a tax charge for any pre-tax amounts converted to Roth, these contributions will stay in the plan for continued tax-advantaged growth.

Target demographics

Roth 401(k) contributions may suit younger workers, those in lower current tax brackets, or anyone aiming for long-term tax efficiency, including individuals planning to leave their retirement savings to heirs who are likely to have higher taxes as well as high-income and high-wealth individuals currently in the top tax bracket who expect to remain there during retirement.

Based on Vanguard's *How America Saves*, 18% of participants use Roth (in plans where it is offered), with annual trends indicating higher levels in the future. Younger individuals ages 25 to 34 show 21% usage, higher earners with incomes of more than \$150,000 show 21% usage, and those earning \$100,000 to \$149,000 show 24% usage. Men and women have an equal participation rate of 18%.¹⁹ SECURE 2.0 changes will accelerate the usage for catch-up-eligible higher earners.

Advice and guidance

Digital advisory services play a critical role in Roth determinations by using algorithms to project tax scenarios, retirement income withdrawal strategies, Social Security-claiming strategies, and recommended asset allocations.²⁰ For retirement plan assets (subject to ordinary income taxes at withdrawal), source-aware investing can be used to allocate equities to Roth accounts, thereby achieving higher tax-exempt returns. Lower-return fixed income investments can be assigned to pre-tax accounts while maintaining an overall risk-appropriate diversification glide path as a participant ages.

For example, consider a 25-year-old earning \$75,000, saving 6% in a Roth account, and receiving a 6% employer pre-tax match. Assume contributions remain at 6%, the individual's salary increases by 1% annually until age 65, equity returns are 7.5%, fixed income returns are 5%, and an age-appropriate asset diversification glide path is followed. A source-aware invested retirement account may produce between 1% and 5% greater after-tax value compared with a pro rata diversified (non-source-aware) retirement account, depending on the participant's effective tax rate at retirement.

Conclusion

Roth contributions are fundamental to modern retirement planning. Unlike traditional pre-tax options that delay taxes, Roth contributions provide tax-free growth and withdrawals through after-tax dollars. These vehicles have become widely popular, with 86% of Vanguard plans offering Roth options.²¹ Roth options encourage tax diversification, helping to reduce risks from possible future tax increases.

The SECURE 2.0 Act of 2022 has improved access by allowing Roth treatment for employer matches, removing RMDs for Roth 401(k) plans starting in 2024, requiring Roth catch-ups for high earners beginning in 2026, and adding super catch-ups for participants ages 60 to 63 in 2025. Current trends include mega Roth conversions, and we will likely see newer trends emerging for Roth automatic enrollment, advised source-aware investing to maximize tax-free gains, and digital advisory tools aiding Roth contribution decisions through tax projections and asset allocation.

Recommendations

Roth features are highly desirable among participants. They enhance plan competitiveness, providing participants with the flexibility to optimize their retirement savings based on their circumstances. Recommendations for plan design include:

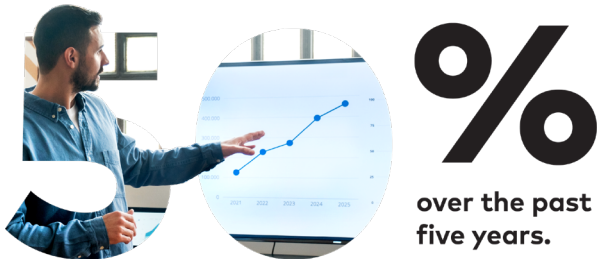
- Fully adopting plan features that support Roth savings, Roth conversions, and after-tax contributions to enable mega Roth.
- Improving the compliance testing plan language in non-safe harbor plans to allow flexibility for compliance solutions such as ADP and ACP borrowing as well as pre-tax contribution recharacterization as permitted under the Internal Revenue Code.
- Providing effective education on Roth contributions and conversions to ensure that participants understand their options.
- Integrating digital tools that offer participants the support they need to make informed decisions for their retirement success amid changing tax landscapes.
- Adding advice for plan participants to leverage the added tax-free return afforded by source-aware investing for Roth savings.

Outlook

Roth 401(k) plans are set to grow as demographics and policies evolve, with the following trends and developments helping to shape the future landscape:

- **Adoption growth.** According to Vanguard's *How America Saves*, Roth participation has grown by 50% over the past five years. The catch-up and super catch-up provisions introduced by SECURE 2.0 are expected to boost significant growth in Roth participation in the coming years. Additionally, an increasing number of younger participants are choosing Roth accounts because of the potential for long-term tax benefits.²²

According to Vanguard's *How America Saves*, Roth participation has grown by



- **Legislative risks and opportunities.** Possible future tax increases could make Roth accounts even more attractive in retirement. Also, upcoming reforms might increase mega Roth contribution options or establish Roth as the plan's automatic enrollment default.
- **Economic factors.** Roth's tax-free withdrawals offer stability in volatile markets. It's generally best for individuals in lower tax brackets, but recent tax legislation changes for credits and deductions add complexity. Education and tools will be crucial in helping participants make informed decisions about both short-term taxes and long-term retirement planning.
- **Plan evolution.** More employers will add Roth options to comply with recent rules, possibly offering Roth in-plan conversions and after-tax contributions for mega Roth. Over time, AI-driven advice tools will likely assist participants in personalizing Roth strategies, resulting in hybrid traditional/Roth portfolios for greater flexibility.

Overall, Roth 401(k) plans offer one of the most tax-efficient ways to save for retirement. Recent legislative changes in many cases require Roth options in retirement plans, encouraging plan sponsors to add Roth features to comply with these laws and remain competitive.

Plan sponsors should remember that each participant's situation is unique and that a participant's decisions regarding retirement savings strategies are best supported by consulting an investment advisor.

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