Office of the
New York City Comptroller
Scott M. Stringer
Bureau of Policy and Research
Bureau of Asset Management
www.comptroller.nyc.gov

October 2016

The New York City Nest Egg:

A Plan for Addressing Retirement Security in New York City

The New York City Nest Egg:

A Plan for Addressing Retirement Security in New York City

Office of the New York City Comptroller Scott M. Stringer
Bureau of Policy and Research
Bureau of Asset Management

Contents

Acknowledgements 5

Executive Summary 6

Background 10

Introduction 12

Plan Components 13

- The Three Pillars 13
  - NYC 401(k) Marketplace 13
  - Empire City 401(k) Multiple Employer Plan 19
  - NYC Roth IRA 23
- Significant Common Features 30
  - Default Contribution Rates Based on Earnings and Age 30
  - Predictable Lifetime Income Stream 32
  - Investment Options 36
  - Automatic Enrollment with Opt Outs for Employees 40
  - Fees 40
  - Leakage and Rollovers 41

Plan Structure: How the NYC Nest Egg Would Work 42

Governance: Building a Strong Foundation 44

Conclusion 45

Appendix 46

Glossary 52

Endnotes 55

Acknowledgements

New York City Comptroller Scott M. Stringer gratefully acknowledges the generous support of a dedicated team of academics: Dr. Teresa Ghilarducci, The New School for Social Research; Dr. David Laibson, Harvard University; Dr. Olivia S. Mitchell, University of Pennsylvania; Dr. Alicia Munnell, Boston College; Dr. Joshua Rauh, Stanford University; and Dr. Stephen P. Zeldes, Columbia University. Their critical thinking, insights, and willingness to engage were essential to the development and refinement of this plan. We also offer a special note of appreciation to David Morse, Esq., of K&L Gates, who provided invaluable legal assistance and consultation.

Comptroller Stringer provides his deepest thanks to lead author of this report and Executive Director of the Comptroller's Retirement Security Study Group, Associate Policy Director for the Comptroller, Susan Scheer, for her leadership and exceptional work. The Comptroller also particularly thanks his Deputy Comptroller for Asset Management, and Chief Investment Officer for the New York City's pension funds, Scott Evans, for his vision and stewardship as Chair of the Retirement Security Study Group.

Comptroller Stringer wishes to extend his special thanks to the staffs of The New School for Social Research's Schwartz Center for Economic Policy Analysis and the Center for Retirement Research at Boston College for their support of this work, and to the Georgetown University Center for Retirement Initiatives, and its Executive Director, Angela M. Antonelli, who has been an invaluable resource.

Comptroller Stringer also recognizes the contributions made to this report by: David Saltonstall, Assistant Comptroller for Policy; Alaina Gilligo, First Deputy Comptroller; Sascha Owen, Chief of Staff; Kathryn Diaz, General Counsel; Zachary Schechter-Steinberg, Deputy Policy Director; Nichols Silbersack, Policy Analyst; Nicole Jacoby, Counsel to the General Counsel; Richard Simon, Deputy General Counsel; Jennifer Conovitz, Special Counsel to the First Deputy Comptroller; Stephen Giannotti, Deputy Chief Information Officer; Angela Chen, Senior Website Developer and Graphic Designer; Mikhail Radovilskiy, Audio/Visual Technician; Archer Hutchinson, Graphic Designer; and Antonnette Brumlik, Website Administrator; Elaine Santiago, Executive Assistant to the First Deputy Comptroller; Stephanie Celaire, Assistant to the Deputy Comptroller for Asset Management.

Executive Summary

"Old age is like everything else. To make a success of it, you've got to start young." - *Theodore Roosevelt*

Private sector workers are being asked to assume increasing responsibility for self-funding retirement. Yet, in New York City, approximately three out of every five private sector workers has no access to an employer-based retirement savings plan, which diminishes the likelihood of accumulating adequate retirement savings.[1]

The New School's Schwartz Center for Economic Policy Analysis examined retirement plan eligibility for full- and part-time private sector workers in New York City between the ages of 25 and 64. Of these 2.5 million private sector workers, 1.5 million, or 58 percent, are uncovered and/or ineligible for a pension, 401(k), or other retirement plan through their employer or business.[2] Lower-wage workers, Hispanic and Asian workers, and those employed by firms with 10 or fewer employees were the most likely to lack access.[3]

Given both the potential budgetary impacts and the human and societal costs of inadequate financial resources in old age, building retirement savings among uncovered employees is a significant public policy concern. To help advance affordable, comprehensive solutions to increase retirement security for private sector workers at the local level, the Office of the New York City Comptroller sought the ideas of academic and other experts on how to increase retirement savings for New York City workers currently lacking access to an employer-based plan.

The New York City Retirement Security Study Group (RSSG) was chaired by Chief Investment Officer of the New York City Pension Fund's Scott Evans, with Susan Scheer, the Associate Director for Policy in the Office of the New York City Comptroller serving as Executive Director. The academic members included: Dr. Teresa Ghilarducci, The New School for Social Research; Dr. David Laibson, Harvard University; Dr. Olivia S. Mitchell, University of Pennsylvania; Dr. Alicia Munnell, Boston College; Dr. Joshua Rauh, Stanford University; and Dr. Stephen Zeldes, Columbia University. Legal assistance and consultation was provided by David Morse, Esq., K&L Gates.

The Office of the New York City Comptroller has drawn upon the RSSG's analysis and the input of study group members to author *The NYC Nest Egg: A Plan for Addressing Retirement Security in New York City*.[4] The plan's goal is to ensure that every New Yorker would have access to a workplace retirement savings plan without creating liability for taxpayers. While individual study group members differed in their support for specific aspects, the plan is an example of the hybrid solution supported by the majority of the group.

Recent rule changes by the U.S. Department of Labor (DOL) has provided the regulatory authority to create publicly-enabled retirement savings programs for private sector workers. In August 2016,

DOL finalized a rule under which states could design and operate payroll deduction individual retirement account (IRA) savings programs, using automatic enrollment, for private sector employees without establishing a pension plan under the Employee Retirement Income Security Act of 1974 (ERISA), the federal law covering private pension programs.[5] DOL had previously released an interpretive bulletin clarifying publicly-sponsored approaches that would be permissible under ERISA.[6] Most recently, DOL has also released a proposed modification to its final rule that would extend the authority to design and operate payroll deduction IRA programs with automatic enrollment to "qualified political subdivisions," such as New York City.[7]

Although this plan is crafted with New York City private sector workers in mind, it could also serve as a blueprint for a statewide effort if that were preferred or legally required. Whether the program operates at the city or state level, the input and involvement of the executive and legislative branches—as well as a broad array of key stakeholders—would be essential to the success of any effort.

To meet the diverse needs of New York City's private sector employers and employees that lack retirement plan access, the NYC Nest Egg would work as follows:

1. **Employers that currently offer a workplace retirement plan would be free to continue doing so.** Most private sector employers that sponsor workplace savings plans choose a 401(k) plan, which offers higher employee savings levels—up to $18,000 in 2016 (or $24,000 for individuals 50 and over)—that can help workers who need to put aside more for retirement, and allows for employer contributions.[8] An employer sponsoring a 401(k) plan is subject to complex ERISA requirements, which provide important protections for employees, such as the right to sue for benefits and breaches of fiduciary duty.[9] In addition to a 401(k) plan, there are three types of employer-established IRAs: a payroll deduction IRA; a SEP-IRA; and a SIMPLE-IRA.[10] Although they are considered ERISA plans, these options are simpler to establish and operate, as long as there is no automatic enrollment feature. The employee owns the account, and savings limits are generally lower than a 401(k)—up to $5,500 in 2016 (or $6,500 for individuals 50 and over) in the payroll deduction IRA.[11]

2. **Employers that do not offer a retirement plan but would like to, would be able to shop for plans through a curated marketplace overseen by an independent board.** To help employers for whom the time and effort of conducting a search for a plan is a barrier in selecting one, a new, voluntary NYC 401(k) Marketplace would offer ready access to a set of screened, employer-sponsored, easier-to-use "prototype" 401(k) plans. These offerings would include a new publicly-sponsored Empire City 401(k) Multiple Employer Plan (MEP), and potentially SEP-IRA and SIMPLE-IRA plans. The 401(k) prototype plans provide ERISA protections to employees, and would allow the employer to automatically enroll employees.

3. **Employers that want to offer a 401(k) plan but are concerned about ERISA fiduciary responsibilities and paperwork associated with individually sponsoring a plan would be able to select a voluntary publicly-sponsored "turn-key" product in the new *NYC 401(k) Marketplace, the Empire City 401(k) MEP*.** A publicly-sponsored MEP is the only legally permissible option currently available that would allow multiple unaffiliated employers to join in

a 401(k) plan with minimal ERISA liability and provide employees access to the advantages of a 401(k). The sponsor and the participating employers would be insured against any residual liability. Since many employers could participate in a larger collective, a MEP is likely to facilitate more attractive terms for participating employers.

4. **Employers that do not select a plan on their own or through the NYC 401(k) Marketplace would default into the new *NYC Roth IRA*.** Research has shown that auto-enrollment vastly increases participation in retirement savings plans by employees. To ensure that every New York employee would have access to a workplace plan, employers would be obliged to automatically enroll eligible employees into a basic publicly-enabled payroll deduction IRA, which is not subject to ERISA. However, employees would be free to opt out at any time.

A publicly-enabled independent governance board, consisting of subject matter experts with no actual or perceived conflicts of interest relating to their board duties, would oversee the NYC Nest Egg. This oversight would include sponsoring the Empire City 401(k) MEP and conducting periodic competitive bidding to prudently select and monitor private providers who would assume fiduciary responsibility, perform administrative functions, and manage investments. Insurance would cover any residual fiduciary liability for the Board and for employers. The board would also execute periodic competitive bidding to select a private provider for the NYC Roth IRA and play a role in the Marketplace's administration. Additionally, the Board would make available financial planning tools, including online calculators.

All marketplace plans and the NYC Roth IRA would harness the power of automatic enrollment, which has been shown to meaningfully improve participation in existing plans and make savings easier, with opt outs for employees. Plan features would include:

- ***my*RA as an investment option.** *my*RA is a new taxpayer-subsidized federal retirement savings option that allows investors to accumulate up to $15,000 with no fees or risk of principal loss.[12] *my*RA would be the initial default investment for the NYC Roth IRA and would eliminate the regressive expense charge burden that results when flat administrative costs are spread over low balance accounts.

- **Default contribution rates based on earnings and age.** Differentiating savings rates by an estimate of annual earnings and age allows savers to better match their contributions to their needs than the current 401(k) system, which typically relies on a single, standard default savings rate. Escalation would be dynamic and driven by market factors**,** and specified participant financial data. Savers would be free to raise, lower, or stop their default contribution rate at any time, and the NYC Nest Egg plan would include a special calculator to help savers further customize the rate.

- **Access to a lifetime income stream.** Two policy options are presented for providing guaranteed lifetime income after retirement. In the first approach, up to 50 percent of savings would be defaulted into a competitively bid guaranteed income stream provider at retirement with the ability to opt out. The second alternative would employ a suite of behavioral tools to encourage the highest possible voluntary opt in rate by age 70. To help with long-range planning, participants would receive statements that express current savings as an estimated stream of monthly payments at retirement.

- **Low-cost investment vehicles.** To minimize costs and maximize efficient execution, all NYC Nest Egg investment options (with the exception of *my*RA) would invest exclusively in passively-managed lifecycle funds, consisting of several basic low-cost index funds modeled on the federal Thrift Savings Plan (TSP).

- **Administrative and investment fees for all NYC Nest Egg offerings would have to be modest,** competitive, and within parameters established by the independent governance board and could not disproportionately impact any group of savers, especially during the start-up phase.

- **Leakage.** To promote the goal of increasing retirement savings, the NYC Nest Egg plan would seek to limit loans and/or hardship withdrawals.

This plan would help the many New York City private sector employees who are not currently saving enough for a secure retirement through broad employee participation while providing employers with the ability to choose the option that works best for them and their employees.

Background

Private sector workers are being asked to assume increasing responsibility for self-funding retirement. Yet, in New York City, approximately three out of every five private sector workers has no access to an employer-based retirement savings plan, which diminishes the likelihood of accumulating adequate retirement savings.[13]

The New School's Schwartz Center for Economic Policy Analysis examined retirement plan eligibility for full- and part-time private sector workers in New York City between the ages of 25 and 64. Of these 2.5 million private sector workers, 1.5 million, or 58 percent, are uncovered and/or ineligible for a pension, 401(k), or other retirement plan through their employer or business. Lower-wage workers, Hispanic and Asian workers, and those employed by firms with 10 or fewer employees were the most likely to lack access.[14]

New York City private sector employees who lacked access to a workplace retirement savings plan included:

- 89 percent of workers employed by firms with fewer than ten employees—416,959 in total.
- 62 percent of men and 55 percent of women.
- More than two-thirds of Hispanic and Asian private sector workers compared to approximately 52 percent of White and Black private sector workers.

In addition:

- The largest numbers of workers lacking access by industry were in Education, Health, Social, and Other Services (402,758 workers), Wholesale and Retail Trade (235,954 workers) and Professional & Management Services (204,552 workers).
- The median income for New York City private sector workers lacking access to a workplace retirement plan was $37,000. The median income of private sector workers in New York City with access to a workplace retirement plan was $55,000.

A more detailed breakdown of the characteristics of uncovered and/or ineligible New York City private sector workers is available in the Appendix.

Observers from all sides of the retirement security debate have noted that the retirement readiness challenge could be addressed through a comprehensive national solution, but federal legislation to do so has yet be adopted.[15]

In the meantime, a significant, albeit imperfect, solution has arisen to fill the gap: a number of states have elected to move forward with their own retirement programs.[16] Uncertainty about the legality of these initiatives has been recognized and recently addressed at the federal level.

In August 2016, DOL adopted a final rule under which states could design and operate payroll deduction individual retirement account (IRA) savings programs, using automatic enrollment, for private sector employees without establishing a pension plan under the Employee Retirement Income Security Act of 1974 (ERISA), the federal law covering private pension programs.[17] In November 2015, the Department also issued an interpretive bulletin focusing on the legal treatment of a state-enabled retirement plan marketplace, and a “prototype” 401(k) plan, and a state-sponsored Open 401(k) Multiple Employer Plan (Open MEP), which allows unaffiliated employers to participate in a common 401(k) plan.[18] These actions were intended to clarify approaches that would be permissible under ERISA. Recently, DOL also released a proposed modification to its final rule that would extend the authority to design and operate payroll deduction IRA programs with automatic enrollment to "qualified political subdivisions," such as New York City.[19]

Since 2012 when California became the first state to pass legislation, Illinois, Connecticut, Oregon, Maryland, and Massachusetts have passed their own legislation authorizing the establishment of publicly-enabled retirement savings plans. In addition, Washington and New Jersey are facilitating better access to market or government offerings. In total, more than 30 states have considered legislation or authorized studies, although even in states where legislation has passed, no plan is yet operational. (See Appendix for a summary of state actions.)[20]

Given both the potential budgetary impacts and the human and societal costs of inadequate financial resources in old age, building retirement savings among uncovered employees is a significant public policy concern.[21] To help advance affordable, comprehensive solutions to increase retirement security for private sector workers at the local level, the Office of the New York City Comptroller sought the ideas of academic and other experts on how to increase retirement savings for New York City workers currently lacking access to an employer-based plan.

The New York City Retirement Security Study Group (RSSG) was chaired by Chief Investment Officer of the New York City Pension Fund’s Scott Evans, with Susan Scheer, the Associate Director for Policy in the Office of the New York City Comptroller serving as Executive Director. The academic members included: Dr. Teresa Ghilarducci, The New School for Social Research; Dr. David Laibson, Harvard University; Dr. Olivia S. Mitchell, University of Pennsylvania; Dr. Alicia Munnell, Boston College; Dr. Joshua Rauh, Stanford University; and Dr. Stephen Zeldes, Columbia University. Legal assistance and consultation was provided by David Morse, Esq., K&L Gates.[22]

Introduction

The Office of the New York City Comptroller has drawn upon the RSSG's analysis and the input of study group members, to author *The NYC Nest Egg, A Plan for Addressing Retirement Security in New York City*.[23] The plan's goal is to ensure that every New Yorker would have access to a workplace retirement savings plan without creating liability for taxpayers. While individual study group members differed in their support for specific aspects, the plan is an example of the hybrid solution supported by the majority of the group.

Although this plan is crafted with New York City workers in mind, it could also serve as a blueprint for a statewide effort should that be preferred or legally-required.[24] Whether the program operates at the city or state level, the input and involvement of the executive and legislative branches—as well as a broad array of key stakeholders—would be essential to the success of any effort.

Given New York City's diverse private sector employer and workforce profile, relying on a single retirement savings vehicle would be inadequate to meet varied needs. Therefore, the NYC Nest Egg adopts a multi-pronged approach:

- To help employers for whom search costs are a barrier in selecting a plan by providing curated options through a voluntary marketplace;
- To give opportunities to employers concerned about fiduciary responsibilities and paperwork to participate in a low-cost Open MEP;
- To ensure that every New Yorker would have access to a workplace plan, employers would default into a basic automatic enrollment IRA if they failed to offer a more comprehensive plan; and
- All components would harness the power of automatic enrollment, which has been shown to meaningfully improve participation in existing plans and make savings easier.[25]

The NYC Nest Egg plan integrates components that collectively seek to address the retirement savings requirements of New York's employees, including: the NYC 401(k) Marketplace; the Empire City 401(k) MEP, and the NYC Roth IRA.

An independent governance board (the "Board") whose members are disinterested subject matter experts with no actual—or even perceived—conflicts of interest relating to their Board duties, would oversee the NYC Nest Egg.

The following sections include a detailed description of the NYC Nest Egg plan, followed by a discussion of significant features common to the Marketplace and NYC Roth IRA plans, a guide to how the plan components would interact, and a concluding section covering governance. A number of key terms used throughout this report are defined in the Glossary.

Plan Components

The Three Pillars

The proposal for a NYC Nest Egg plan reflects the best understanding of what is legally permissible at the time of writing (Fall 2016), based on current federal law. As noted in the companion report, *An Analysis of Options to Increase Retirement Security for New York City Private Sector Workers*, federal regulations at the time precluded consideration of certain design elements that might otherwise have been included to strengthen the program. The proposal takes note of these limits where appropriate, should alterations to the policy landscape permit a reconsideration of plan features in the future.

NYC 401(k) Marketplace

To help employers for whom search costs are a barrier in selecting a plan, the Board would establish a NYC 401(k) Marketplace ("Marketplace") to facilitate a connection between businesses and plan providers by providing curated options through a voluntary marketplace. The new NYC

Workplace Retirement Plans

Most employers offering a workplace retirement plan choose to sponsor a 401(k) plan. A 401(k):

- Permits employees to save up to $18,000 in 2016 (or $24,000 for individuals 50 and over), which helps workers who need to put aside more for retirement.
- Allows for optional employer contributions. Requires compliance with ERISA, the federal law governing private pension plans.
- Although complex, ERISA rules provide important protections for employees, such as the right to sue for benefits and breaches of fiduciary duty.

In addition to a 401(k), there are three types of employer-facilitated individual retirement arrangements: a payroll deduction IRA; a SEP-IRA; and a SIMPLE-IRA. A payroll deduction IRA:

- Permits employees to save up to $5,500 in 2016 (or $6,500 for individuals 50 and over).
- Does not allow for employer contributions.
- Does not require compliance with ERISA if employer involvement is minimal.
- Is simpler to establish and operate, and the employee owns the account.

Source: Internal Revenue Service

Marketplace would offer both screened Roth and traditional 401(k) "prototype" plans and the publicly-sponsored Empire City NYC 401(k) MEP, and encourage the use of SEP/SIMPLE IRAs.

The Marketplace would combine employer-arranged private sector-offered plans and a publicly-sponsored plans using private sector providers to improve quality and make savings more affordable through competition. Marketplace plans could include both ERISA and non-ERISA retirement savings arrangements, while the Marketplace itself would not be covered by ERISA.

Current Employer Challenges: As discussed in the companion report, *An Analysis of Options to Increase Retirement Security for New York City Private Sector Workers*, many small business owners feel burdened by the demands of selecting and managing retirement plans. Among other reasons, employers have indicated that they lack the time or knowledge to choose among the large number of 401(k) providers and plans available through the private market. Employers also cite the costs of 401(k) plans and concerns about ERISA compliance.[26] These include legal requirements for non-discrimination testing, designed to ensure that the plan does not favor highly compensated employees, and for disclosing plan benefits and administration through the annual 5500 Form report filed with DOL. The potentially more complicated plan design features, such as hardship withdrawals and loans, could also add to the costs of a 401(k) plan.

As a result of these challenges, most 401(k) participants and dollars are in large plans where employers have the wherewithal to handle the requirements. The vast majority of U.S. 401(k) plans are sponsored by smaller businesses. Fully 76 percent of the plans tracked by the Employee Benefit Research Institute have 100 or fewer participants, while only two percent of the plans have more than 2,500 participants. Nevertheless, these large plans account for approximately 70 percent of participants and plan assets.[27]

Competition and Choice: The Marketplace would save employers time and money by providing ready access to a "curated" pool of acceptable, easier-to-use 401(k) "prototype" plans and IRA options, while preserving their ability to select among the offered plans. By establishing minimum eligibility criteria, offering more than one 401(k) plan, and employing the power of competition, the Marketplace could help provide quality products at a lower price.

Higher Savings Levels: Providing access to a 401(k) plan would help workers, particularly those with higher savings needs, put aside enough for retirement. A 401(k) plan has an employee elective annual savings limit that is more than three times the individual IRA cap, and employers have the option to contribute.[28] For higher income earners who need to save more to supplement a lower Social Security replacement rate, the IRA limit would likely be insufficient.[29] Indeed, some financial experts would advise that an individual earning $100,000, considered an upper middle class salary in New York City, would ideally save 20 percent of their gross earnings; this amount would exceed even the 401(k) cap by $2,000.[30]

Financial Planning: To help employees better identify their savings needs, workers could take advantage of online calculators and other tools offered on the site to help them customize their default contribution and to provide financial education. In addition, account statements would translate savings into an estimated income stream, and employees would be able to purchase annuities from a screened insurance provider to deliver lifetime income.

Voluntary Participation: Participation would be completely voluntary and open to all New York City employers. Under ERISA, the decision to sponsor or discontinue an employee benefit plan is solely at the discretion of the employer.[31] Given the importance of offering affordable coverage to as many employees as possible, it would be preferable not to establish a minimum or maximum threshold for eligible businesses to participate in Marketplace plans based on the number of employees. To keep New York employers competitive with one another in hiring and retaining employees, all businesses would be able to get the best, most cost-effective plan available, whether through the Marketplace or elsewhere.[32]

Screened Providers: The Marketplace would reduce the burden on employers in plan selection and management. The Board would periodically select providers that, separately or working with other approved vendors, meet minimum criteria, including low "all-in" fees for administration and investments. Employers would shop through a Marketplace website that provides curated selections and then work directly with the plan provider to implement and administer the plan, including generating compliance documents. However, employers would retain responsibility under ERISA as the plan sponsors, with the exception of the Empire City 401(k) MEP.

The Marketplace should allow employers to take advantage of better quality, lower cost products because the Board would vet providers and negotiate terms. The Board's foremost responsibility would be to establish and update criteria for and provide final approval of 401(k)—and any IRA—plan providers wishing to participate in the Marketplace. The Board would issue a periodic, competitive Request for Proposal (RFP) to identify 401(k) Marketplace private sector providers. To assure employers and employees that the program is being operated with integrity and solely in their best interest, vendors would need to be selected to handle investments and/or recordkeeping in a transparent, objective manner based on the best combination of price and quality. The process would be carried out in accordance with all relevant procurement procedures.

Making a select number of additional providers, perhaps four to eight, available would ensure robust competition without the risk of overwhelming and discouraging busy employers from selecting a 401(k) plan. 401(k) bidders would be strongly encouraged to also bid to be the default IRA provider.

The Empire City 401(k) MEP, which would be one of the plans offered through the Marketplace, is discussed separately below.

Independent Board Oversight: To provide both independence and expertise, the independent Board, which is discussed in greater detail in the Governance section, would administer the Marketplace. The Board would provide ongoing oversight of the Marketplace, although it could elect to operate or contract out some or all functions. Table 1 provides an overview of the NYC 401(k) Marketplace.

Table 1: Basic Design of the NYC 401(k) Marketplace

Features	Type
Plans Offered	1) Screened Roth and Traditional 401(k) prototype plans. 2) Empire City 401(k) MEP. 3) Encourage SEP/SIMPLE IRAs.
Employer Participation	Voluntary. Open to all employers.
Enrollment	Employer selects plan. Employees auto-enrolled, and may opt out at any time.
Contribution Rate	Earnings and age default, with access to calculator for customization.
Investment Options	Access to *my*RA; Passive Lifecycle Funds and their components.
Guaranteed Returns	None.
Annuity	Option to buy deferred and/or single premium immediate annuity at retirement.
Leakage	Allow limited loans and hardship withdrawals.
Ability to Accept Rollovers and to Roll Over into Other Plans	Yes.
Administration	Independent board.

All 401(k) providers that offer plans in the Marketplace would meet Board-established criteria. These criteria are discussed in detail in part two of this section, Significant Common Features.

The suggested minimum criteria include the following:

Automatic Enrollment for Employees. When an employer selects a Marketplace plan, all eligible employees would be automatically enrolled to boost participation and savings rates. Employees could individually opt-out at any time.

Default Contribution Rate. The default contribution rate for Marketplace 401(k) plans would be based on age and earnings to allow savers to better match their contributions to their needs than the current 401(k) system. Participants would have access to a calculator and related educational tools for further customization. The plans would allow both employer and employee contributions.

Moreover, by allowing for an employer match, employees have an incentive to participate and to accumulate increased savings.[33] The table of default rates would be adjusted annually by the Board. Escalation would be dynamic and driven by market factors and specified participant financial data.

Fees. Administrative and investment fees would be modest and within Board-established parameters to help ensure that the plans are affordable. Because the fee structure for 401(k) plans is evolving, and other changes are possible, specific proposed fee cut-offs are not advisable at this time.[34] The Board would be guided by the need to ensure that fees are competitive and do not disproportionately impact any group of savers, particularly during start-up.

Guaranteed Income at Retirement. The Marketplace plans would not offer guarantees, but would provide access to a lifetime stream of income payments through annuities. To provide access to a predictable lifetime income stream, the Board should strongly consider adopting a policy that would default a portion of savings into a single premium immediate annuity at retirement with the ability to opt out. Alternatively, the Board would use "active choice" behavioral tools to increase voluntary opt in and make both deferred and immediate annuities available.

Investment Options:

- **Access to *my*RA for the first $15,000 in savings.** The use of *my*RA as an investment vehicle would require additional exploration with the United States Department of the Treasury (Treasury Department). Alternatively, *my*RA could also serve as a separate savings option; employees could contribute to a traditional and/or Roth IRA even if they participate in a 401(k), although the tax deductibility and availability of the Roth IRA are subject to certain income limits.[35]

- **Passive lifecycle funds.** To balance simplicity, returns, and risk, the default investment for all marketplace offerings would be passively-managed lifecycle funds, composed from a compact set of commingled low-cost index fund options, modeled on the federal Thrift Savings Plan (TSP).

Leakage. Marketplace 401(k) plans would allow limited loans and hardship withdrawals to promote the goal of increasing retirement savings.

Regular and Roth 401(k) "Prototype" Plans. A prototype plan would ease some of the burden on individual employers' sponsoring a 401(k) plan, while still allowing for a degree of customization. 401(k) plan sponsors are subject to a far more expansive set of legal requirements than employer-facilitated individual retirement arrangements. Responsibilities under ERISA include disclosure regarding plan features and funding, fiduciary responsibilities for those who manage and control plan assets, and implementation of benefit claims and appeals processes.[36] It also grants participants the right to sue for benefits and breaches of fiduciary duty.[37] Additionally, 401(k) plans are covered by numerous "nondiscrimination," distribution and other rules imposed by the Internal Revenue Code.[38]

A Master and Prototype ("prototype") plan makes use of an Internal Revenue Service (IRS)-approved standardized 401(k) plan document marketed by payroll service providers, banks,

insurance companies, and other regulated financial institutions. Individual employers may then adopt the prototype and sponsor a plan for their employees.[39] Each employer retains fiduciary responsibility for ERISA compliance, however, many of these responsibilities may be delegated to the plan provider and/or recordkeeper. The recordkeeper would test each employer plan for compliance issues, such as tax code coverage and non-discrimination rules and proper administration.

For small employers that have payroll services, the providers can easily generate and populate the annual mandated plan report to the IRS and DOL, the Form 5500, using the client's payroll data.[40] Such standardization reduces employer costs and administrative burdens, while still allowing for some degree of customization in plan features.

Table 2 provides a summary of the major features of traditional and Roth 401(k) plans. Because the tax treatment differs, offering both options would allow savers to select the plan type that best matches their needs.

Table 2: Comparison of 401(k) Retirement Accounts

	Traditional 401(k)	Roth 401(k)
2016 Maximum Elective Contribution	Same aggregate limit as Roth 401(k) account.	Aggregate employee elective contributions limited to $18,000 in 2016 ($24,000 for employees age 50+).
Contributions	Traditional, pre-tax employee elective contributions are made with before-tax dollars.	Employee elective contributions are made with after-tax dollars.
Withdrawals and Loan	A plan participant may borrow up to 50 percent of an account balance up to a maximum of $50,000 for a particular loan. The loan's term is five years (unless a home loan) and must be repaid in substantially level payments.	Same as Traditional 401(k).
Income Limits	No income limitation to participate.	No income limitation to participate.
Taxation of Distributions	Withdrawals of contributions and earnings are subject to federal and most State income taxes.	Withdrawals of contributions and earnings are not taxed provided it is a qualified distribution.[41]
Required Distributions	Distributions must begin no later than age 70 ½, unless still working and not a five percent owner.	Age 70½ minimum distribution rules do not apply, except to beneficiaries of a deceased participant.

Source: Internal Revenue Service.[42]

SEP-IRA and SIMPLE-IRA Plans. To provide additional options for employers that would like to offer a plan that is less difficult to set up and maintain than a 401(k) plan, the Board would evaluate the use of two other types of ERISA plans through the Marketplace, Simplified Employee Pension (SEP-IRAs) and Savings Incentive Match Plans for Employees (SIMPLE-IRAs). As discussed in the companion paper, *An Analysis of Options to Increase Retirement Security for New York City Private Sector Workers*, SEP-IRA and SIMPLE-IRA plans are relatively straightforward to establish and operate. Both plans require employer contributions, and, simpler ERISA requirements apply. (See Appendix for a comparison of SEP-IRAs and SIMPLE-IRAs.) With its higher contribution limits, a SEP-IRA is a particularly good tool for self-employed individuals. The SIMPLE-IRA also has higher contribution limits than a standard IRA, however, a SIMPLE-IRA plan can only be used by employers with fewer than 100 employees.[43]

Rollovers. To provide access to the screened Marketplace plans, rollovers from other qualified plans into the Marketplace plans would be made available to the full extent permitted by law. Participants in Marketplace plans would have the ability to roll over funds to another qualified plan.[44]

Empire City 401(k) Multiple Employer Plan

To give opportunities to employers concerned about fiduciary responsibilities and paperwork to participate in a low-cost multiple-employer plan, the Board would sponsor a new, voluntary Empire City 401(k) MEP. The Empire City 401(k) MEP would be a voluntary, multiple employer plan with commingled funds. Automatic enrollment, the default contribution rate, the default investment option, annuitization, and leakage issues would be handled identically to all other marketplace options, as described above.

Although the Marketplace prototype 401(k) plans would relieve much of the administrative burden faced by employers, the requirement to file an individual Form 5500 Annual Report, the costs, and the residual liability for oversight and fiduciary responsibility may still be a barrier for small businesses.

The Empire City 401(k) MEP would allow private sector employers to adopt a 401(k) retirement plan with minimal liability and low costs. The Empire City 401(k) MEP would take advantage of recent DOL guidance clarifying that a state or qualified political subdivision would be able to sponsor an Open MEP. This arrangement would satisfy ERISA sponsorship requirements because of the unique representational and economic interest government shares with employers and employees.[45] This plan would be carefully structured to ensure ERISA compliance, thereby minimizing liability risks, and the plan sponsor, rather than individual employers, would file a single Form 5500 Annual Report for the plan.

Current Employer Challenges: While both are covered by ERISA, the plan sponsor and eligible participants differ between a standard single employer 401(k) plan and an Open MEP. Generally, individual employers sponsor a 401(k) plan for their own employees. A MEP, as the name implies, allows employers that meet specified eligibility criteria (a “common bond”) to jointly provide pooled retirement plan benefits through one administrative structure to their collective workforce, allowing for economies of scale and less employer compliance burden than if each employer sponsored an individual plan.

Existing private sector MEPs operate in a complex regulatory environment. Under IRS rules, these plans allow two or more unrelated employers to maintain a single plan as long as certain conditions are met. For plans sponsored by the private sector, DOL, however, sanctions only "closed MEPs," which permit two or more employers with a shared representational and economic interest to operate a single plan.[46] Multiple employer plans that comply with DOL requirements can be found today in a variety of industries such as religious schools, Girl Scout troops, and rural power co-ops.[47]

Competition and Choice: The Empire City 401(k) MEP would provide a valuable alternative to the other plans available in the Marketplace by taking advantage of the cost savings and reduced administrative requirements associated with operating a single large-scale plan. The MEP would compete in the Marketplace alongside the 401(k) plans selected through the RFP process by the Board. By offering competition, the Empire City 401(k) MEP would hopefully encourage vendors seeking to operate in the Marketplace to offer plans that compare favorably. Conversely, the presence of the Marketplace options would help ensure that the Board-sponsored Empire City 401(k) MEP is a cost-effective, quality choice for employers that do not want to individually sponsor a plan.

Current federal policy does not provide a level playing field between private sector multiple employer 401(k) plans and the Empire City 401(k) MEP. Understandably, some financial service providers, employers, and other observers believe that private entities should be able to organize a MEP plan without a "common bond" requirement and without government involvement.[48] The President's Fiscal Year 2017 Budget included support for this approach, and a number of bills have been introduced in Congress.[49] The Administration's proposal also includes new employee protection provisions.[50]

Relief from Administrative and Fiduciary Burdens: Employers would have the opportunity to participate in a single plan while shifting virtually all of the legal and compliance issues to the designated plan sponsor, and away from individual employers.

The Board would act as a fiduciary for the Empire City 401(k) MEP pursuant to ERISA and would be responsible for administering the plan, including reporting and disclosure requirements. The Board's duties would include ensuring that participants are provided with benefit statements, overseeing the annual independent audit and IRS-required testing, developing a system for resolving benefit claims, and performing other related functions. The Board could contract with vendors willing to assume some or all of these duties, with the Board retaining fiduciary responsibility for prudently selecting and monitoring the service providers. The Board's expenses would be billed to the participants as part of the administrative fees of the fund.

Similarly, the plan could be structured to limit fiduciary responsibilities for participating employers—the duty would be limited to prudently selecting the Empire City 401(k) MEP and monitoring its operation.[51] It is believed that insurance would cover any residual fiduciary liability for the Board and for employers arising from the selection of the Empire City 401(k) plan.[52]

The vendors would perform investment management, communications, and recordkeeping, including submission of compliance paperwork on behalf of the plan. Employers would sign up for the MEP, and work directly with the plan provider to implement and administer the plan.

Lower Costs: Since many employers could participate in a larger collective, an Open MEP is likely to facilitate more attractive terms for participating employees. The public sponsor could take advantage of economies of scale to reduce administrative and other costs. If this option is well-subscribed, fees could be kept low.

Portability: The Empire City 401(k) MEP would offer greater portability to participating savers. Participating employers and program design would encourage an employee to transfer an account to another participating employer, allowing employees that move from one Empire City 401(k) MEP participating employer to another to have and continue contributing to a single 401(k) account in the Empire City 401(k) MEP.

In a standard employer-sponsored 401(k) plan, employees are not permitted to add money to their 401(k) account when they are no longer employed by the plan sponsor.[53] After separation, some employees liquidate the account, rolling over the funds into an IRA with higher fees, or have difficulty monitoring multiple small 401(k) accounts accumulated over a decades-long career with several job changes, detracting from the goal of accumulating retirement savings.[54]

Screened Providers: The Board would periodically select providers that separately or working with other approved vendors meet minimum criteria, including low “all in” fees for administration and investment. The process and standards for screening providers is described in the Marketplace section above.

Independent Board Oversight: There would be no taxpayer-funded financial relief to plan participants if the plan performs poorly. Table 3 provides an overview of the Empire City 401(k) MEP.

Table 3: Basic Design of Empire City 401(k) MEP

Features	Type
Plans Offered	Multiple-employer 401k w/ commingled funds.
Employer Participation	Voluntary. Open to all employers.
Enrollment	Employer selects plan. Employees auto-enrolled, and may opt out at any time.
Contribution Rate	Earnings and age default, with access to calculator for customization.
Investment Options	Access to myRA; Passive Lifecycle Funds and their components, consisting of Thrift Savings Plan-like small group of broad commingled passive funds.
Guaranteed Returns	None.
Annuity	Option to buy deferred and/or single premium immediate annuity at retirement.
Leakage	Allow limited loans and hardship withdrawals.
Ability to Accept Rollovers and to Roll Over into Other Plans	Yes.
Administration	Independent board.

As with all 401(k) providers that offer plans in the Marketplace, the Empire City 401(k) MEP provider(s) must meet the Board-established minimum criteria, including:

- ✓ **Automatic enrollment for employees.**
- ✓ **Access to *my*RA for the first $15,000 in savings.**
- ✓ **Passive lifecycle funds.** Contributions would be pooled for investment purposes and held in a separate trust.
- ✓ **Modest fees below the Board-established maximum.**
- ✓ **Default contribution rates based on age and earnings with access to a calculator and related educational tools for further customization.** Employer match permitted.
- ✓ **Access to guaranteed income at retirement through annuities.**
- ✓ **Regular and Roth 401(k) plan offerings.**

These criteria are discussed in detail in part two of this section, Significant Common Features.

In addition to the minimum criteria, the Empire City 401(k) MEP would offer the following enhancements:

Employer Participation: Employers would execute a participation agreement to join the plan, enroll employees, and forward voluntary employee (and, any optional employer) contributions to the Empire City 401(k) MEP.

Investment Options: Consideration was given to an additional investment option, one that would provide a minimum guaranteed return of one to two percent annually. This option was not included in the final proposal since the City would not be willing to stand behind a guarantee, and it was not clear who else would be at this time. Nonetheless, the Board would be encouraged to monitor developments in this area and to revisit this approach if warranted.[55]

Rollovers/Transfers: If an employee changes jobs, the Empire City 401(k) MEP would encourage a participant to transfer a vested account into the new employer's plan if the new employer also is a member of the Empire City 401(k) MEP.

NYC Roth IRA

To ensure that every New Yorker would have access to, and participate in, a workplace retirement savings plan, the Board would create a new, basic NYC Roth IRA. The new NYC Roth IRA would be an obligatory retirement savings option for employers that do not offer access to a workplace plan—either one obtained on their own or through the voluntary Marketplace. Employers would be required to automatically enroll employees and would not be subject to ERISA.[56] The default contribution rate, annuitization, and leakage would be handled as described in the Marketplace plans. In addition to mandatory automatic enrollment, the details of the default investment differ somewhat and are discussed below.

The NYC 401(k) Marketplace screening process, which would evaluate potential vendors and determine eligibility based on design criteria, and the availability of the Empire City 401(k) MEP, would significantly improve access to less costly and easier-to-use 401(k) plans, considerably reducing administrative, time, risk, and cost impacts for employers seeking to establish a 401(k) plan. Nonetheless, given the voluntary nature of the Marketplace, some businesses may still be deterred by the burdens of selecting a 401(k) plan and satisfying legal requirements and may not participate.

The publicly-enabled NYC Roth IRA would allow employers to provide access to a workplace plan without incurring ERISA liability. New DOL regulations establish that a State-sponsored payroll deduction Roth IRA would not be considered an employee benefit program—and therefore would not trigger ERISA—if employer participation is mandated in the enabling statute. The employer mandate is only required under DOL's safe harbor ERISA exemption if employees are auto-enrolled. Legislation that includes a mandate for automatic enrollment is required.[57]

These employers would default into the new NYC Roth IRA, and would be required to automatically enroll eligible employees to facilitate broad participation. Workers would contribute a share of their pay to the NYC Roth IRA plan through a payroll deduction and would retain the ability to opt out at any time.

Although the NYC Roth IRA would make the best use of the current options for this savings arrangement, had ERISA permitted an employer mandate for a 401(k) vehicle, consideration would have been given to making the Empire City 401(k) MEP the default vehicle for the NYC Nest Egg plan to meet the widest range of needs possible.

Current Employer Challenges: Workplace payroll deduction IRAs are not widely available presently.[58] Although federal agencies such as the Department of the Treasury, the IRS, and DOL have promoted adoption of payroll deduction IRAs, employer awareness of this option may not be widespread.[59] Moreover, the voluntary nature of payroll deduction IRAs has seemingly made employers and vendors unwilling to navigate the set-up process and employers may believe that employees should set up an IRA on their own.[60] Finally, if an employer wanted to establish a payroll deduction IRA with automatic enrollment to encourage extensive employee participation, the plan would be subject to ERISA.

Competition and Choice: To preserve some level of choice, consideration was given to establishing an IRA marketplace. Under the DOL safe harbor, however, an employer cannot voluntarily choose to offer an IRA with automatic employee enrollment without creating a "pension plan" subject to full ERISA regulation.[61] Without auto-enrollment, the benefits of an IRA marketplace would seem to be outweighed by the concern that employers without a workplace plan could choose not to participate and leave employees without easy access to a savings vehicle. Accordingly, it would be useful for the federal government to re-visit the current restrictions on auto-enrollment that limit opportunities for employer choice in a government-enabled IRA marketplace.

A second option, an IRA marketplace with an automatic enrollment mandate, where employees could choose among screened plans, with a designated or rotating default IRA for employees who do not make a selection, would likely be permitted under DOL rules.[62] However, the drawbacks would also seem greater than the strengths; a choice of vendors could be confusing to employees, employers, and payroll services, could drive up costs, and could limit participation.

Benefits Low-to-Median Earners: The NYC Roth IRA option is best-suited to help NYC's low-to-median earners prepare for retirement. The NYC Roth IRA would provide these workers with easier access to a savings vehicle, lower savings costs, and ensure the availability of a vetted provider. In Table 4 below, the boxes shaded green show sample savings levels below current annual IRA limits for five categories of earners. (The actual contribution amounts for a Roth IRA would be based on after-tax earnings.)

Most employees already have funds deducted from their paycheck to provide income in retirement. In 2016, 12.4 percent of gross wages are contributed towards Social Security—6.2 percent each from the employer and employee—up to the annual wage cap of $118,500.[63] If, for example, an individual elected to save an additional 12.4 percent in a pre-tax traditional IRA, the employee's total savings rate would be roughly 25 percent of gross wages including Social Security. For low-to-moderate wage earners, this savings level is likely to be an upper bound, given stagnant wage

levels, New York's high cost of living, and unprecedented student loan debt loads, among other factors.[64] Very low-wage career workers *who are covered by Social Security* would have access to educational materials regarding how their participation might impact their overall financial situation, including eligibility for government programs.[65]

As discussed in more detail in the Significant Common Features section on default contribution rates, Social Security replaces a higher percentage of earnings of low-wage workers than of their high-wage counterparts.[66] Accordingly, median-to higher earners need to contribute much more toward their retirement savings than low earners. The boxes shaded red in the table below show savings totals that exceed the current annual IRA limit. Workers in these categories would be better served through a 401(k) plan.

Table 4: Annual Contributions based on Social Security Annual Earnings Replacement Rates for Hypothetical Workers, 1954 Birth Cohort

Earner Type	Annual Earnings	Annual Savings Rates				
		1%	3%	5%	10%	12.5%
Very Low Earner	$11,922	$119	$358	$596	$1,192	$1,490
Low Earner	$21,459	$215	$644	$1,073	$2,146	$2,682
Median Earner	$47,687	$477	$1,431	$2,384	$4,769	$5,961
High Earner	$76,299	$763	$2,289	$3,815	$7,630	$9,537
Very High Earner	$116,123	$1,161	$3,484	$5,806	$11,612	$14,515

Note: 2016 annual IRA savings limit: $5,500 for individuals ages 50 and under, $6,500 for 50+; Earnings are for workers born in 1954 (age 62 in 2016). The red boxes contain savings rates that exceed the 2016 annual IRA contribution limit.
Source: Center for Retirement Research calculations based on SSA OCACT Actuarial Note 2016.9 and Authors.

Minimal Employer Administrative Burdens: The employer's duties would be limited to a few ministerial functions, such as enrolling employees and facilitating the transfer of employee contributions. To address small business owners' concerns, it is important that the plan design keep employer administrative requirements and costs as minimal as possible. Easy-to-use automated systems—such as existing payroll services or making a portal available—would help reduce employer time and costs to enroll employees and conduct ongoing transactions. Every effort should be made to avoid requiring employers to use new, separate technology to fulfill their obligations. In addition, the NYC Roth IRA would include robust centralized recordkeeping and reporting capabilities to mitigate much of what would otherwise be an employer's responsibility under an automatic enrollment IRA plan.[67] Lastly, penalties for innocent mistakes by the employer must be very mild.

Since the NYC Roth IRA is outside ERISA, the fiduciary standard for the employer to prudently select and monitor the plan does not apply.

Screened Provider(s): The process and standards for screening providers is described in the Marketplace section. As with the Empire City 401(k) MEP, the Board would oversee the bidding process and selection of a vendor or vendors to operate the plan and invest its assets. As with employers, the Board is not subject to the ERISA fiduciary standard to prudently select vendors and monitor their performance. However, the Board could voluntarily adopt an ERISA-type fiduciary standard.

To foster competition in the selection of the default, the Board would conduct bidding to provide recordkeeping, investment management, and education services. The Board would solicit submissions widely, including from the NYC 401(k) Marketplace providers. Vendors may bid on the entire package or individual components. As discussed earlier, 401(k) plan providers seeking to participate in the Marketplace would be strongly encouraged to also bid to be the default IRA provider. The Board would have the option to assemble an unbundled "white label" Empire City Roth IRA from the component bids. In the early years of the program, start-up costs and uncertainty may limit the pool of competitive bidders in which case the Board-created Empire City Roth IRA would be the default. If the Board cannot provide an Empire City Roth IRA that is superior to other offerings, the default would be the best available plan to emerge from the bidding process.

To guard against the default IRA becoming a monopoly, the default would be re-bid on a regular basis, and the pool of viable providers is expected to expand as the program matures. The initial level of interest among vendors to provide this type of payroll deduction IRA is not clear. Nonetheless, mandatory automatic enrollment as well as clarification of the DOL "safe harbor" could help overcome the obstacles that have slowed the availability of payroll deduction IRA products and providers.

Portability: The employee would individually own the NYC Roth IRA account. The account holder may continue to make contributions when changing jobs if the new employer is eligible to participate.

Voluntary Employee Participation: While employers are required to automatically enroll their employees in the NYC Roth IRA if they do not provide any other workplace savings plan, employees are free to opt out of the NYC Roth IRA at any time. DOL regulations do not permit automatic enrollment for employers not covered by the mandate. However, enabling legislation could allow such employers to voluntarily participate, with employees opting in.[68]

Independent Board Oversight: The Board would ensure that participants in the default vehicle are provided with benefit statements, oversee the annual independent audits, develop a system for resolving benefit claims, and perform other related functions. As with the Empire City 401(k) MEP, there would be no taxpayer-funded financial relief to plan participants if the plan performs poorly.

Table 5 provides an overview of the NYC Roth IRA.

Table 5: Basic Design of NYC Roth IRA

Features	Type
Plans Offered	Individual Roth IRA.
Employer Participation	Mandatory as per enabling legislation.
Enrollment	Employees auto-enrolled, and may opt out at any time; Voluntary opt-in to full extent of law.
Contribution Rate	Earnings and age default, with access to calculator for customization.
Investment Options	*my*RA default investment for first $15,000; Passive lifecycle funds only, consisting of Thrift Savings Plan-like small group of broad commingled passive funds, for >$15,000.
Guaranteed Returns	None.
Annuity	Option to buy deferred and/or single premium immediate annuity at retirement.
Leakage	Limited hardship withdrawals.
Ability to Accept Rollovers and to Roll Over into Other Plans	Yes.
Administration	Independent board.

The NYC Roth IRA provider(s) must meet the Board-established minimum criteria, including:

- ✓ **Automatic enrollment for covered employees.**
- ✓ **Use of *my*RA as the default investment option for the first $15,000 in savings.**
- ✓ **Passive lifecycle funds, once the account balance exceeds $15,000.**[69] A higher starting balance should help lower administrative fees as a percentage of assets. Contributions would be pooled for investment purposes and held in a separate trust.
- ✓ **Modest fees below the Board-established maximum.** In an automatic enrollment environment, it is imperative that participant fees be competitive, even if employees are free to opt out.
- ✓ **Default contribution rates based on age and earnings with access to a calculator and related educational tools for further customization.** Employer contributions are not legally permitted.
- ✓ **Access to guaranteed income at retirement through annuities.**

These criteria are discussed in detail in part two of this section, Significant Common Features.

In addition to the minimum criteria, the NYC Roth IRA would offer the following enhancements:

Employer Participation. Limiting participation to businesses of a certain size would be one way to relieve the smallest employers of any burden. While limiting mandatory participation to businesses with a minimum number of employees is permitted by DOL, doing so in New York would be antithetical to the goal of creating greater access to retirement savings for those who need it most.[70] Over 400,000 New York City workers who are not covered by a retirement plan work for employers with fewer than 10 employees.[71] Phasing in mandatory participation based on business size could be considered. Also, although it would contradict the principle of introducing no additional costs to New York City taxpayers, a tax credit or refund to small business employers to defray the costs of participation might merit further deliberations.[72]

Sole proprietors and freelance workers would be permitted to participate to the fullest extent permissible by law.[73]

Investment Options. A professionally managed, commingled or "pooled fund" benefits from diversification and from economies of scale, which allow for lower costs per dollar of investment. Moreover, pooling the investment of individual accounts, particularly low-balance accounts, could further reduce administrative costs for participants and the negative impact on their individual account balances.[74]

Leakage. To balance retirement readiness with legitimate, urgent needs, only hardship withdrawals would be available.[75] Early withdrawals, which may incur a 10 percent penalty in addition to regular taxes, detract from the goal of saving for retirement.[76]

Mandatory Automatic Enrollment. As noted, to use automatic enrollment in a non-ERISA covered IRA, DOL regulations require an employer mandate. Under this “opt out” approach, all eligible employees would be automatically enrolled, and a default amount would be deducted from the employee’s paycheck and deposited in the publicly-sponsored default NYC Roth IRA plan, unless the employee specifically elects not to participate. Administration of the payroll deduction would need to be designed to take advantage of systems that employers already use to fulfill existing requirements for payroll taxes and withholding.[77] Technical assistance would need to be provided to employers, particularly small businesses, to facilitate their participation.

Plan Options. A Roth, rather than a traditional, IRA was selected because of its advantages for lower-income New Yorkers most likely to use this option and for their employers. As discussed previously, a Roth account is simple to set up and use; contributions are post-tax and early withdrawals are tax- and penalty-free, for the most part.[78] Low- and moderate-income workers may feel more comfortable participating if they knew that they could access their savings for emergencies, although using a retirement account in this way is not optimal for reaching long-term retirement saving targets. Table 6 provides a comparison of traditional and Roth IRAs. Further study is needed to determine whether a traditional IRA should also be made available for employees earning above the Roth income limits or who do not want a Roth.

Table 6: Comparison of Payroll Deduction IRAs

	Traditional IRA	Roth IRA
2016 Maximum Employee Contribution	$5,500 if under 50/$6,500 if 50 years and older.	Same.
Employee Contribution Tax Treatment	Eligible contributions are tax deductible. Level and eligibility for deduction depend on income, tax filing status and workplace retirement plan coverage. Tax credit up to 50 percent on first $2,000 in contributions if income eligible.	Contributions are ineligible for a tax deduction. Contribution eligibility and amount depend on income and tax filing status. Saver's Tax Credit same as traditional IRA.
Withdrawals and Loan	Early withdrawals permitted. Taxable as income. May be subject to 10 percent tax penalty. No loans.	Early withdrawal of contributions are tax- and penalty-free. Early withdrawal of earnings may be subject to tax and penalty.
Income Limits	No limit if neither spouse is covered by a workplace retirement plan.	Modified AGI Married: <$194,000 Single: <$132,000
Taxation of Distributions	Distributions are taxable as income. Certain pre-59 ½ distributions are also subject to a 10 percent penalty tax.	Qualified distributions are not taxed.
Required Distributions	Required minimum distributions must be taken each year beginning at age 70 ½ or may be subject to penalty.	No requirement to take distributions while owner is alive.

Source: Internal Revenue Service.[79]

Rollovers. Given its low costs for savers, the NYC Roth IRA would be an attractive vehicle for savers who wish to roll over funds from a 401(k) plan.[80]

Even for New Yorkers, establishing an Open MEP, a Marketplace, and an IRA at the same time might present challenges. Accordingly, implementation timing, including consideration of a phased-in process, would merit further exploration.

Significant Common Features

The plan is intended to provide features that improve upon what is already available in each of the three phases of retirement preparedness: savings accumulation, investment, and spending down accumulated assets in retirement. The Marketplace plans, including the Empire City 401(k) MEP, and the NYC Roth IRA would offer several shared design features related to contribution rates, access to lifetime income, investment options, automatic enrollment, fees, leakage, and rollovers.

Default Contribution Rates Based on Earnings and Age

Default options are critical determinants of individual savings behavior.[81] Differentiating savings rates by an estimate of annual earnings and age allows savers to better match their contributions to their needs than the current 401(k) system, which typically relies on a single, standard default savings rate. Escalation would be dynamic, driven by market factors and specified participant financial data.

Current Practice: The use of a default contribution rate in partnership with auto-enrollment in defined-contribution retirement savings plans has become increasingly popular as a behavioral tool to boost savings.[82] If the participant provides no indication of a desired contribution level to the retirement plan, a default percentage—typically three percent—is deducted from the paycheck.

An all-purpose default contribution rate has several drawbacks. First, as the chart below shows, Social Security replaces a higher percentage of earnings of low-wage workers than of their high-wage counterparts, although many low earners retire early.[83] Table 7 demonstrates that establishing the same contribution rate for workers at all earnings levels would not be appropriate because, for example, higher earners need to contribute much more toward their retirement savings than low earners.

Table 7: Social Security Annual Earnings Replacement Rates for Hypothetical Workers, 1954 Birth Cohort

Earner Type	Annual Earnings	Replacement Rate	
		Age 62	Age 66
Very Low Earner	$11,922	60.8%	73.8%
Low Earner	$21,459	44.2%	53.7%
Median Earner	$47,687	32.7%	39.8%
High Earner	$76,299	27.2%	33.0%
Very High Earner	$116,123	21.6%	26.5%

Note: Annual Social Security Benefits are for Workers born in 1954 (age 62 in 2016).

Source: SSA OCACT Actuarial Note 2016.9

Moreover, an all-purpose default rate does not take into account that, all too often, savers fail to adjust the default contribution rate when circumstances change, largely due to inertia.[84] Others may accept the amount because the financial experts who developed the plan set the rate. The result could leave most wage-earners contributing too little, and could even mean that the lowest-earning workers are saving too much. One study of three 401(k) plans found that about 80 percent of participants accepted both the default savings rate of two to three percent and the default low risk, low-yield investment fund; three years later, half the participants had made no changes to either default.[85]

Enhanced Customization: Currently, lifecycle funds are the primary vehicle used to individualize savings accumulations; investment strategy is based on a target retirement date. The NYC Nest Egg would also offer the means to differentiate default contribution savings rates by annual earnings and age. Although more complex to implement and communicate, which is a concern, this feature would be a significant refinement of current industry practice and provide enhanced customization options for savers.

Differentiating savings rates by an estimate of annual earnings is the next broadly beneficial step toward increased customization. Income replacement for a very low-income worker is almost fully-covered by Social Security, but the replacement rate for a household with an income of $100,000, might only be about 30 percent.[86] Accordingly, an individual's savings rate would ideally reflect his or her income level.

Without access to an individual's and household's Social Security earnings records, the rate cannot truly be customized to each NYC Nest Egg participant. However, using defaults based on age, would, on average, further improve the accuracy of the default. While caution is needed when generalizing, a person who ages beyond the stage of heavy family formation would find it easier to sustain the higher contribution rates necessary to provide an adequate income stream in retirement.[87]

Dynamic Escalation: Automatic contribution escalators may mitigate some of the deficiencies of a static default rate. More than half of all large U.S. corporations offer this feature, which has been associated with doubling the contribution rates of more than four million employees.[88] As with the default contribution, when this feature is offered, current industry practice relies on a single, across-the-board automatic escalation rate.[89] In the NYC Nest Egg plan, basing the default on earnings creates a de facto form of automatic escalation. As wages go up over the decades, the default saving rate goes up. This also addresses another weakness of auto-escalation: it as not as effective when employees change jobs and must re-start the contribution cycle.

The NYC Nest Egg plan default rates would be dynamic and adjusted annually by the Board. For example, the default rate for, say, a 52-year-old earning $73,000 would not be fixed. The rate would be responsive to investment returns such as stock and bond market returns, and other factors. If stock market returns have persistently fallen short of expectations, the Board could alter suggested contribution rates to keep savers on track.[90]

Savers would be free to raise, lower, or stop their default contribution rate at any time. To help savers further customize the rate, the NYC Nest Egg plan would include a calculator that is

behaviorally sophisticated, giving the average saver a free educational tool that is more typically available to those who have access to a professional financial advisor.

Calculators: As an example, the calculator could offer a basic level that would be completed in one minute and would produce a crude estimate of the recommended savings rate based on a single input. While fewer savers might be expected to take advantage of the mid-range and advanced-level calculators, which would require more time to complete, these options would include more variables such as household size, assets, and income to allow for greater targeting.[91]

Standard Default: If savers reject the default generated based on earnings and age but do not make their own selection, the recommended default would be six percent, with automatic escalation of one percent per year up to a Board-established cap.[92] Recent studies by the states of California and Connecticut found that workers were essentially indifferent between three percent and six percent defaults.[93] A higher default rate would be consistent with the public policy goal of maximizing savings, although additional study would be needed to assess the impact, particularly on low-income workers.

Predictable Lifetime Income Stream

A major shortcoming of 401(k) plans and IRAs is that they leave the individual saver subject to his or her own longevity risk due to the individual account structure.[94] This responsibility may cause the individual to take a conservative approach to spending down assets in case they are fortunate enough to enjoy an above-average lifespan and face the risk of prematurely exhausting one's savings.

The NYC Nest Egg does not include a defined benefit plan, which would provide recipients with guaranteed payments for life. The risk of potential additional taxpayer liability is inconsistent with the principles guiding this proposal.

Providing a predictable lifetime income stream to help savers spend down assets in retirement was also a major objective guiding the development of this proposal. Most New Yorkers already possess an annuity with which they are satisfied: Social Security.[95] While recognizing that many NYC Nest Egg participants could benefit from an additional layer of annuitization, a nuanced approach to this feature is advisable for a number of reasons as discussed in more detail below.

Current Annuity Take-Up: By allowing individuals to pool longevity risk with other individuals, annuitants can draw income as if they were to have an average lifespan regardless of their actual longevity. This arrangement can be obtained through a contract the purchaser makes with an insurance company. The terms are based upon projections of life expectancy, interest rates, and other factors. The insurance company agrees to provide the annuity owner with regular lifetime income payments in the future in exchange for a lump sum of money provided by the purchaser, which is invested by the insurer. The large pool of annuity holders allows the provider to balance the risk that some annuity holders would live longer than expected—and receive a larger payout than originally estimated—by taking advantage of the unexpended funds for annuitants who have shorter-than-expected lifespans.

Yet, the availability and take-up of annuities is still not widespread, possibly due to concerns about cost and reliability. A 2014 survey by Aon Hewitt, an employee benefits consulting firm, found that just eight percent of the firms responding offered annuity options and just over 80 percent of firms that did not offer annuities had no plans to do so in the coming year.[96] In addition, direct purchases of annuities by individuals from insurance companies have also been low; only about seven percent of workers who retired from a job with a defined contribution plan purchased an annuity with plan assets.[97] One reason may be that the prices for individually purchased annuities are expensive because insurance companies observe that purchasers are likely to be more long-lived than average (and, in some cases, because retail sales commissions are high). Lastly, worries about the long-term financial viability of the insurer may act as a deterrent.

Individual decision-making behavior regarding annuities may be another factor that has dampened interest. Behavioral economic studies have found that individuals misunderstand how to incorporate annuities into an optimal retirement portfolio.[98] Experts have observed that decisions about purchasing an annuity may be driven by psychological factors that may distort the purchaser's decision. For instance, potential purchasers may overweight the possibility that they would die before recouping their initial investment, although products are available with guarantees to cope with this risk.[99] Another issue may be the loss of control over one's funds.[100] Retirees may sometimes feel reluctant to place limits on the amount of their money that is available to spend in a given month, or to leave to heirs. Partial annuitization addresses this concern.

Longevity Insurance: To be sure, annuities offer some obvious benefits. Most significantly, these payments are meant to protect against the possibility that purchasers outlive their savings. An annuity may also help individuals resolve difficult retirement planning questions like when to retire and how much they can afford to spend each year during retirement.[101] A TIAA-CREF Institute study found that a retiree who took systematic withdrawals equal to the payments received from a lifetime annuity—that is, self-insured at the same income level—had a greater than 50 percent chance of running out of money.[102]

To encourage greater take-up, the federal government recently enacted new rules to make it easier for individuals in 401(k) plans and IRAs to purchase annuities as "longevity insurance."[103] Workers are now able to purchase a deferred annuity—one that starts payment at a later date—without running afoul of the requirement to begin withdrawals from retirement accounts by age 70 ½.[104]

Annuities could be a valuable tool for New Yorkers at varying income levels. Making clearly-constructed and well-explained annuity options available in a New York City plan would be integral to the larger goal of helping people optimize the use of their accumulated savings in retirement. How an annuity is presented, including the language used and the age of the participant, influence public perception. Consequently, educating NYC Nest Egg plan participants about the role annuities could play in retirement would be strongly recommended.

Translating Savings into Projected Income: One of the principal problems with most defined contribution savings schemes for individuals is that they do not know how to translate their accumulated balances, or their projected balances at retirement, into projected income streams.[105] Some financial service providers such as TIAA-CREF help simplify this process by reporting projected income streams on statement.[106] The NYC Nest Egg would do the same, using the latest quotes from annuity providers who participate in the proposed plan.

The Board would work with providers to frame account statements that show participants the explicit costs of not insuring their retirement income. Without participating in an insurance pool that allows individuals to receive benefit payments based on their expected life span, uninsured Nest Egg participants would need to make higher contributions to achieve their target income benefit than they would by contracting for longevity insurance.

The following example statement illustrates what types of information could be provided:

Current Accumulation:	**$xxx,xxx**
Income Replaced with Insurance at age 65	xx%
Income Replaced If Uninsured at age 65	xx%
Current Annual Contribution Rate:	**xx%**
Contribution rate needed to reach 60% income replacement (insured)	xx%
Contribution rate needed to reach 60% income replacement (uninsured)	xx%

Note: Values have been left blank for illustrative purposes.

If retirement statements were framed in this manner, more participants would likely opt to purchase an annuity to insure the risk that they could outlive their money. Any calculation of income replacement should include Social Security income.

Screened Providers: An annuity could be purchased individually by IRA or 401(k) account holders, or by a group covering that individual in a MEP, which might produce a volume discount price. Additionally, participants need to be assured that the financial strength of selected annuity providers has been thoroughly assessed. To counter any risk, NYC Nest Egg could either use a periodic winner-take-all bid selection for a single annuity provider with rigorous qualification criteria, or contract for a seamless connection to an existing privately-managed platform with multiple, screened providers.[107]

Two approaches emerged for integrating a lifetime stream of income payments into the NYC Nest Egg plan, and both are presented for further consideration by policymakers:

Option 1: Default annuitization into a partial annuity at retirement

Default annuitization deserves the strong consideration of policymakers. Because default options are critical determinants of individual saving behavior, the goal of providing savers with a predictable lifetime income stream might be best met by defaulting NYC Nest Egg participants that meet certain criteria—such as a minimum account balance of, say, $20,000—into an annuity.[108]

Under partial annuitization, the retiree would keep some savings liquid for emergencies, nursing home care, or a bequest. For the default annuity, half the account balance could go into an

immediate single premium annuity—to protect against falling into poverty if the retiree runs through savings prematurely—with features such as a 10-year guarantee and spousal survivor benefits. (A more detailed discussion of annuity features appears in the Glossary.) While it is advisable for policymakers to deeply examine the benefits of default partial annuitization, it may be premature to say with confidence that it is the only option that should be contemplated.

Option 2: "Active Choice" to increase voluntary annuitization levels at retirement

Another approach would be to include annuitization on the menu of available options for participants, while actively educating and encouraging savers to voluntarily opt-in.

Annuitization is not the best choice for *every* participant in the NYC Nest Egg plan. For example, current mortality statistics show that lower income individuals are more likely to have a shorter life expectancy; accordingly, these participants might have less need to insure their longevity.[109] Or, individuals who have low account balances, such as those who start saving later in life, may not be good candidates for annuitization because fixed costs would be high relative to the balance, making the product unduly costly.

In this approach, the results of academic studies, provider experience and other accumulated knowledge would be combined to create a layered set of behavioral tools to enhance voluntary annuitization. These include presenting statement balances in the format shown above, partial annuitization, providing a 10-year guarantee to address the purchaser's fear of losing their money, and emphasizing the concept of "guaranteed income."[110]

To further increase voluntary participation, the NYC Nest Egg could vigorously pursue participants at the start of retirement and continue to contact them up to age 70. These communications could emphasize the need to make an active designation from a set of available products: a deferred annuity—one that starts at age 85 and insures against poverty for those who live beyond the average lifespan and run out of liquid savings; an immediate single premium annuity, where the purchaser pays a sum of money and immediately begins receiving a steady stream of income (e.g., guaranteed lifelong monthly payments) as a perpetual backstop; and a rollover IRA, where the proceeds from a workplace retirement plan, usually a 401(k), are moved into an IRA, to provide greater liquidity and flexibility without losing the tax benefits of a retirement account.

Choice Architecture: Several types of choice architecture could be deployed to facilitate thoughtful consideration of annuities, including:

- Frame annuities as insurance against outliving your assets.
- Describe annuities as "guaranteed income."
- Emphasize that the annuity offers a ten-year certain payout, to alleviate concerns about losing one's savings "right" after the annuity is purchased.
- Maximize transparency of the annuity product (and minimize complexity).
- Help the retiree recognize that Social Security and other defined benefit pensions are also annuities.

- Help the retiree calculate their total income replacement rate from *all* annuity sources.

- Develop an annuitization web-based wizard that enables the retiree to make a series of simple decisions about annuitization (e.g., do you want inflation adjustment, or do you want to receive a fixed payment?).

- Encourage the retiree to think of annuitization as a *partial* component of their retirement plan and not an all-or-nothing decision (so he or she has liquid funds for emergencies and bequests).

An additional step could be to provide a suggested percentage allotment for the three options—a deferred annuity, a single premium immediate annuity, and an IRA. As with the default contribution, a calculator could be provided to assist the saver, but ultimately responsibility for making a designation would lie with the worker. Using all of the tools would hopefully drive up the annuitization rate out of defined contribution retirement savings to 20 percent or beyond.[111]

Investment Options

*my*RA for the first $15,000 in savings.

The recently-launched *my*RA account is a taxpayer-subsidized Roth IRA administered by the Treasury Department. *my*RA accounts invest solely in a Treasury retirement savings bond and are subject to all rules that apply to Roth IRAs, including contribution limits and tax rules. Once an account reaches $15,000 in value or has been held for 30 years, the savings must be rolled over into a privately-managed plan. The program is free of any participant fees or startup costs; the federal government underwrites all of the expenses. Contributions may be withdrawn at any time without incurring a penalty, and the account cannot lose value.[112]

*my*RA offers many benefits as an integrated investment option. For first-time investors, the opportunity to accumulate retirement savings free of fees and risk would hopefully establish a savings habit that the worker would sustain, however, most employees need to save more for retirement. Plan members who roll over funds from *my*RA when they reach the savings cap into a diversified portfolio including stocks and bonds, like the lifecycle funds offered in the NYC Nest Egg plans, have a better chance of earning the returns needed to meet their targeted replacement rate. Nonetheless, the NYC Nest Egg would provide educational support to help workers feel more comfortable moving from a secure investment like *my*RA to one where losses can be incurred.

In addition, because the costs of account maintenance for an IRA are relatively fixed, when account balances are low, fees would consume a higher percentage of assets. Opening a NYC Roth IRA account with $15,000 accumulated in a *my*RA account would help lower fees as a percentage of assets, increasing the net rate of return.

Moreover, the presence of the *my*RA account for initial balances should improve the willingness of vendors to bid aggressively to become the default IRA provider. Without the *my*RA, potential vendors could be cautious in making fixed basis point bids on a plan that would likely contain many low balance accounts. With the knowledge that only balances of greater than $15,000 will be transferred into mutual fund accounts, providers can assume that most accounts will have sufficient assets to comfortably amortize fixed administrative costs.

The precise mechanism for facilitating enrollment of NYC workers into *my*RA and subsequent rollover of *my*RA funds to the NYC Roth IRA would need to be worked out.

The use of *my*RA as an investment vehicle for employer-sponsored 401(k) plans selected through the Marketplace and for the Empire City 401(k) MEP would require additional exploration with the Treasury Department; making *my*RA available to a 401(k) would likely require federal approval or regulatory changes which could be in place by the time the Marketplace and Empire City 401(k) MEP are implemented. Alternatively, *my*RA could also serve as a separate savings option; employees could contribute to a traditional and/or Roth IRA even if they participate in an employer-sponsored retirement plan like a 401(k), although the tax deductibility and availability of the Roth IRA are subject to certain income limits.[113]

Passive lifecycle funds for savings over $15,000.

Standard Default Investment: To balance simplicity, returns, and risk, the investment options of the marketplace offerings, including the Empire City 401(k) MEP and the NYC Roth IRA, should be restricted by legislation to passive lifecycle funds, consisting of several basic low-cost index fund options, modeled on the TSP.[114] Participants would be defaulted into the lifecycle funds, which have a specific asset allocation mix that changes as the account holder ages. In addition, participants would have the option of customizing allocations among component funds. Professional, private investment managers would be selected on a competitive basis, with periodic re-bidding. The use of electronic information and fund transfers to the fullest extent possible would also have a beneficial impact on investment costs.

Passive Management: Studies have found that passively-managed investments are lower cost and frequently produce superior returns to active funds, net of fees. For example, a Morningstar study found that actively-managed funds lagged their passive counterparts across nearly all asset classes, especially over a 10-year period from 2004 to 2014.[115] High fees and expenses can erode investment returns and make it harder to achieve an adequate replacement rate.[116]

Lifecycle funds can offer low-cost access to a diversified portfolio of stocks and bonds that can help New Yorkers reach their retirement savings goals. In general, passive lifecycle funds have lower expense ratios because investments do not require the oversight of highly paid active portfolio managers.[117] For lifecycle funds—also known as Target Date Funds (TDFs)—with a target retirement date of 2050, the three companies that collectively account for just under 75 percent of market share for TDFs—Fidelity, T. Rowe Price and Vanguard—have expense ratios ranging from 0.16 percent (16 basis points, or bp) to 0.24 percent (24 bp) for index funds and expense ratios between 0.75 percent (75 bp) and 0.77 percent (77 bp) for actively-managed funds.[118]

Lifecycle Funds: Thanks to the federal government's encouragement and the product's inherent efficiency, lifecycle funds have become an increasingly popular investment vehicle.[119] The TSP added lifecycle funds to its offerings in 2005, and in 2015, made them the default investment.[120] A study from the Employee Benefit Research Institute found that nearly two-thirds of recently hired 401(k) plan participants were invested in balanced funds such as TDFs, compared with less than one-third of recently hired participants 15 years earlier.[121]

Moreover, the Treasury Department considers the lifecycle funds' simplicity to be well-suited to investors who have neither the time nor inclination to make decisions about what assets they wish

to invest in and how to allocate funds among them.[122] An enrollee's only major decision is to select the fund closest to his or her targeted retirement date or, if no selection is made, be opted into the most appropriate fund based upon age and presumed retirement. The funds are usually set to meet retirement dates at five- or 10-year intervals. For example, an individual anticipating retirement in 2048 might be able to invest in a 2040, 2045, or 2050 target fund.

Low-cost Index Funds: Investments in the NYC Nest Egg plan lifecycle funds would be limited to a mix of equity and fixed-income index funds and cash. While investing in stocks and bonds does carry the risk of loss of principal, experts generally agree that it is difficult, if not impossible, for workers at most income levels to save enough for retirement in risk-free investments, especially once inflation is taken into account.[123] According to Boston College's Center for Retirement Research, between 1975 and 2012, compound annualized real returns on domestic large cap and small cap equities were 7.7 percent and 11.6 percent, respectively. However, the volatility of returns is an important consideration. Bonds, while offering lower returns, also offer less risk. For the same period, real returns on bonds ranged from 4.1 percent for intermediate-government bonds to 5.3 percent and 5.5 percent for long-term government and corporate bonds.[124] Bonds may also move counter-cyclically, providing a cushion when the stock market is performing poorly.

The Investment Company Institute has noted that the design of lifecycle funds may further improve returns by helping investors avoid costly, common errors.[125] For example, lifecycle funds provide diversification across asset classes, automatically rebalance asset allocations, and avoid extreme asset allocations.

TSP Model: The TSP is frequently cited as a model for creating a cost-effective retirement savings plan that serves a large pool of workers.[126] The advantages of low-cost passively-managed investments and portfolio diversification would serve any group of employees—but the larger the group, the greater the potential economies of scale.

The component NYC Nest Egg plan investment funds would follow similar strategies to those found in the federal TSP. The TSP offers six options that take advantage of very low-cost passive index funds for stocks and bonds: lifecycle funds; a fixed-income index fund; a common stock index fund; a small capitalization stock index fund; and an international stock index fund (see Table 8).[127] The plan includes a unique offering—the "G" fund—that, like *my*RA, invests in special Treasury securities issued to the TSP.[128] The G fund guarantees no loss of principal, promises a longer-term bond yield and offers liquidity, an arrangement that would be impossible to replicate at the city level. The closet equivalent would be a stable value fund or other low-risk fixed-income investment, which would likely pay lower interest rates to savers than *my*RA or the G fund.

Table 8: Comparison of TSP Funds

	G Fund	F Fund	C Fund	S Fund	I Fund	Lifecycle Fund
Description of Investments	Government Securities (specially issued to the TSP)	Government, corporate, and mortgage-backed bonds	Stocks of large and medium-sized U.S. companies	Stocks of small to medium-sized U.S. companies not included in the C Fund	International stocks of more than 20 developed countries	Invested in the G, F, C, S and I Funds
Objective of Fund	Interest Income without risk of loss of principal	To match the performance of the Barclays Capital U.S. Aggregate Bond Index	To match the performance of the Standard & Poor's 500 (S&P 500) Stock Index	To match the performance of the Dow Jones U.S. Completion TSM Index	To match the performance of the MSCI EAFE (Europe, Australasia, Far East) Index	To provide professionally-diversified portfolios based on various time horizons, using the G, F, C, S and I Funds

Source: Thrift Savings Plan. "Fund Comparison Matrix."[129]

Since employees are limited to the investment options provided through their employer plan, it is critical that those options are attractively priced. The TSP auction system has successfully identified and selected low-cost providers, addressing a key concern about some private sector workplace retirement savings plans.

Automatic Risk Adjustment: Lifecycle funds also incorporate automatic adjustments for a changing risk profile. By adjusting the mix of stocks, bonds, and cash to reduce risk as the participant nears retirement, the funds would aim to ameliorate exposure to sudden market swings that might dramatically reduce balances when there is less time to recover. In setting the pre-established "glide path," the Board would need to take into account the level of risk (e.g., exposure to equities) for those closest to retirement.[130]

Pooling: By investing funds collectively and taking advantage of economies of scale, the Board would be able to negotiate lower fees and administrative costs from financial services firms handling the Empire City 401(k) MEP and the NYC Roth IRA plans. While large employers frequently get preferred terms due to the scale economies of serving their plans, small employers tend to pay full list price for retirement services.[131] The NYC Nest Egg plan could provide large company economics to small companies. The pricing received would be far better for a large plan than a series of unrelated small ones. While funds would be commingled for investment purposes, individual accounts would be maintained for every participant.

Customization: The lifecycle funds for each Marketplace 401(k) plan would invest in the component funds offered by that plan, as in the TSP example above. However, investors could also opt out of the lifecycle funds and customize allocations among component funds to meet

individual goals. This opportunity could be of particular value to investors facing a late start in saving for retirement, who have made inconsistent contributions, need to change their targeted replacement rate, or have other extenuating personal circumstances. Since investing in stocks and bonds always involves risk, the NYC Nest Egg plan could provide participants with access to basic educational materials to help them make more informed decisions about investment strategy.

Automatic Enrollment with Opt Outs for Employees

All NYC Nest Egg components would offer automatic enrollment to the fullest extent permitted by law. As discussed in the companion report, *An Analysis of Options to Increase Retirement Security for New York City Private Sector Workers*, automatic enrollment is a powerful behavioral tool. A substantial body of both theoretical and empirical research has found that automatically enrolling individuals in a retirement savings plan raises participation rates and increases savings.[132] This is especially important for less affluent earners because of their lower propensity to save on their own.[133] (See Appendix.)

While employer sponsorship of a 401(k) plan must be voluntary, once an employer selects a Marketplace 401(k) plan, including the Empire City 401(k) MEP, the employer's eligible employees would be automatically enrolled in the plan.

Automatic enrollment in the NYC Roth IRA would be mandatory for employees that lack access to a workplace retirement plan. According to a recent White House announcement, fewer than 10 percent of eligible, uncovered workers take the initiative and make the decisions required to establish and contribute to an IRA on their own.[134] As noted earlier, to use automatic enrollment, DOL regulations require that implementing legislation include an employer mandate.[135]

In all cases, employees would be able to opt out of participation. Once contributions have started, employees could discontinue, re-start, or change the amount of the contributions.

Fees

Administrative and investment fees for all NYC Nest Egg offerings would be modest, competitive, and within parameters established by the independent governance board, and could not disproportionately impact any group of savers, especially during the start-up phase.

Because the fee structure for 401(k) plans is evolving, and other changes are possible, proposing specific fee cut-offs at this time is not advisable.[136]

Start-up costs associated with the program launch would need to be amortized over a reasonable time period, after which, if assets grow to their expected scale, ongoing expenses as a percentage of total assets would decline considerably. In addition to annual fixed costs, studies by Connecticut and California estimate total fees for both administration and investments of 50 basis points and 100 basis points for an auto-enroll IRA, respectively, for the first five-year contract and falling to 30 basis points thereafter.[137] The apportionment of costs—as well as competitiveness with private sector options—would be a critical concern.

Leakage and Rollovers

To promote the goal of increasing retirement savings, the NYC Nest Egg plan would seek to limit loans and/or hardship withdrawals, accept rollovers to the extent permissible, and educate participants about the benefits and costs of rolling over NYC Nest Egg funds or liquidating accounts.

In the Marketplace plans, including the Empire City 401(k) MEP, participants would be allowed limited loans and hardship withdrawals. Unlike in 401(k) plans, account holders may not take a loan from an IRA. To balance retirement readiness with legitimate, urgent needs, only hardship withdrawals would be available in the NYC Roth IRA.

Early withdrawals, which may incur taxes and penalties, detract from the goal of saving for retirement.[138] In addition, workers undermine retirement security if they liquidate their 401(k) balance when terminating employment, take an in-service withdrawal, or fail to pay back a loan from their retirement account, behaviors which are on the rise.[139] Younger and lower-income workers were particularly likely to do so: 41 percent of those ages 20 to 39, and 51 percent of workers who left jobs grossing under $30,000 cashed out. According to Cerulli Associates, cash-outs and loan defaults were responsible for more than $80 billion in lost retirement assets in 2014.[140]

Plan Structure: How the NYC Nest Egg Would Work

The NYC Nest Egg plan would work as follows:

1. Employers that currently offer a workplace retirement plan are free to continue to do so.

2. Employers that do not offer a retirement plan but would like to, would be able to shop for plans through a new, curated NYC 401(k) Marketplace overseen by an independent board.

3. Employers that want to offer a 401(k) plan but are concerned about ERISA fiduciary responsibilities and paperwork associated with individually sponsoring a plan would be able to select a voluntary publicly-sponsored "turn-key" product in the new NYC 401(k) Marketplace, the Empire City 401(k) MEP.

4. Employers that do not select a plan on their own or through the NYC 401(k) Marketplace would default into the new NYC Roth IRA.

A schematic outlining how the elements interact follows.

NYC Nest Egg Proposal

UNIVERSE OF EMPLOYERS IN NYC

Does employer offer access to workplace retirement plan?

YES → No action necessary.

NO ↓

Does employer plan to offer a 401(k) or payroll deduction IRA?

YES — OR

- Employer selects and implements 401(k) or payroll deduction plan from existing private sector offerings.
- Employer may select among a Board-screened set of 401(k) plans meeting minimum established criteria from the NYC 401(k) Marketplace, including the Empire City 401(k) MEP.

NO ↓

Mandatory Enrollment In NYC Roth IRA

If employer does not make a plan available, employees must be automatically enrolled in the default IRA competitively selected by the Board.

PLAN HIGHLIGHTS

- Employees may opt out at any time.
- Takes advantage of *my*RA as an initial investment option.
- Common minimum criteria for NYC 401(k) Marketplace provider offerings and default NYC Roth IRA where appropriate.
- Default contribution rates based on earnings and age.
- Offers access to annuities to provide guaranteed income in retirement.

Governance: Building a Strong Foundation

With potentially tens of billions of dollars to be invested and taxpayers' retirement security at stake, strong governance must lie at the heart of any plan. Transparency and accountability should be bedrock principles for a government-enabled retirement savings plan. Support for any plan should be contingent on the ability to independently assess whether decisions are being made solely in the participant's best interest. Accordingly, oversight would rest with a governance board (the "Board") committed to avoiding even the appearance of conflicts-of-interest in the management and operations of the program.

Independence: The structure, composition, and responsibilities of the Board would reflect the need to operate with the highest levels of integrity. First and foremost, the Board should be an independent entity. Its proceedings, policies, decisions, performance measures, and evaluations should be documented and available for public review to the fullest extent possible.

Expertise: Appointees to the Board would be disinterested subject matter experts with no current ties to government, financial services, labor or other stakeholders that might create an actual or perceived conflict. The appointees would hold staggered terms to ensure maintenance of institutional history while encouraging fresh perspectives. The Canadian pension boards, which are highly regarded, could serve as a model for best practices in board structure.[141]

Administration: The Board would play significant roles in the administration of the NYC 401(k) Marketplace and in the creation of the NYC Roth IRA and the Empire City 401(k) MEP. The Board would be responsible for ensuring that the Marketplace, the NYC Roth IRA, and the Empire City 401(k) MEP were structured with strict attention to compliance issues to minimize any liability risks. All investment management and recordkeeping would be privately managed and subject to periodic, competitive bidding, as would other services such as education and the provision of annuities. As noted in the companion paper, *An Analysis of Options to Increase Retirement Security for New York City Private Sector Workers*, questions about the reasonableness of both start-up and ongoing program costs, as well as how to apportion them, would be critical concerns for the Board.

Education: Many participants in the program would be novice savers and investors who can elect to opt out of the program at any time. Therefore, attracting and maintaining involvement would be vital to achieving the plan's ultimate goal: boosting retirement readiness.[142] The Board would also make available financial literacy and education materials and learning tools, including calculators, which would help savers customize their choices to better meet their needs and goals.[143]

Ongoing Evaluation: With several states on track to launch programs in the coming years, a stronger knowledge base would be in place by the time that New York implements a program. As such, the Board would also need to conduct ongoing evaluation based on what other cities and states have learned during implementation and to monitor the potential impact of innovation, such as the start-up firms that have emerged recently that leverage technology to provide low-fee investment management and advice.

Conclusion

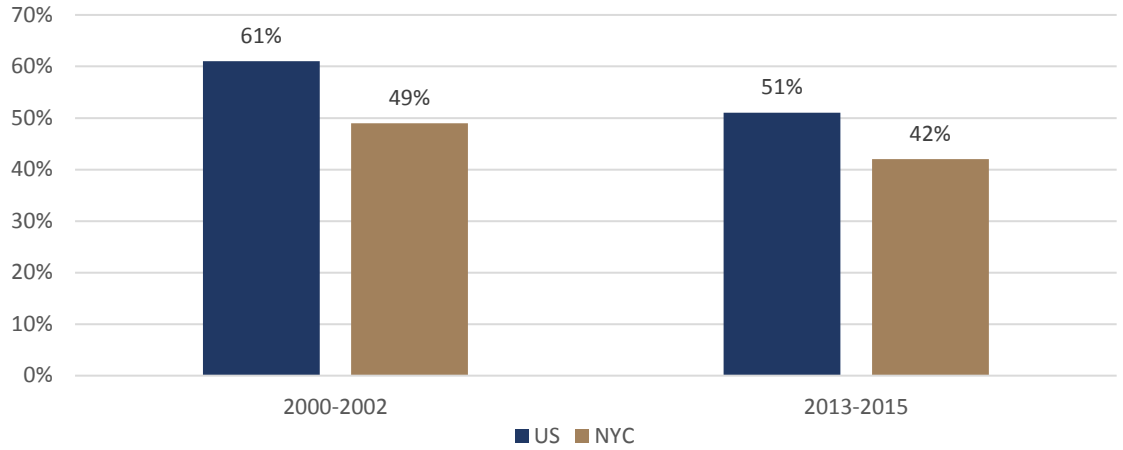
Helping New Yorkers better prepare for retirement benefits us all. Spending by seniors is a powerful economic engine, helping businesses thrive and adding to the City's tax base. Far too few workers, however, have the savings they need to make it through as much as thirty years of retirement, particularly those now nearing the end of their working life. Younger New Yorkers need to start saving as soon as possible to avoid a similar outcome.

The NYC Nest Egg offers a menu of integrated solutions designed to meet the needs of workers, employers, and taxpayers. First, the Marketplace would help businesses more easily connect with a curated selection of voluntary private sector 401(k) plan providers. Second, the publicly-sponsored Empire City 401(k) MEP would allow employers to offer their employees the benefits of a 401(k) without the administrative and legal burdens and at a lower cost. Finally, the publicly-enabled NYC Roth IRA with mandatory enrollment would provide a backstop to ensure that every New Yorker has access to a workplace retirement savings plan.

Ultimately, success would be measured by the degree to which New Yorkers take advantage of these opportunities. Since even a household at the average New York wage income may be unaccustomed to saving for retirement, outreach and financial education about the importance of saving are prerequisites for encouraging enrollment and ongoing participation.

Appendix

Employer-Sponsored Retirement Plans in NYC and the U.S., 2001 and 2015



Source: Schwartz Center for Economic Policy Analysis' calculations based on Current Population Survey, Annual Social and Economic Supplement, 2000-2002 and 2013-2015.

Notes: Each grouping represents an average over three years. Percentages in the figure are rounded. Sample is limited to persons aged 25-64 who worked at some point in the previous calendar year. New York City sample is limited to residents of New York City. The figure should be interpreted as: In 2013-2015 an average of 42% of New York City workers who participated in a retirement plan through their employer.

NYC Private Sector Workers Without Access to a Workplace Retirement Plan

	Total Private Sector Workers	Ineligible/Uncovered Private Sector Workers	Percent of Private Sector Workers Ineligible/Uncovered
Total	**2,535,438**	**1,481,059**	**58.4%**
By Gender			
Male	1,313,357	811,139	61.7%
Female	1,222,081	669,920	54.9%
By Race			
White non-Hispanic	1,007,576	526,481	52.3%
Black non-Hispanic	512,671	266,542	52.0%
Asian non-Hispanic	421,304	284,891	67.6%
Hispanic	563,431	385,737	68.5%
Other	30,456	17,408	57.4%
By Unionization Status			
Non-Unionized	1,972,571	1,267,132	56.9%
Unionized	562,867	213,927	33.7%
By Firm Size			
Under 10 Employees	471,120	416,945	88.6%
10-49 Employees	529,377	379,524	71.6%
50-99 Employees	225,429	123,464	54.9%
100-499 Employees	354,607	161,112	45.6%
500-999 Employees	129,178	62,311	48.4%
1000 or More Employees	825,727	337,703	40.9%
By Industry			
Education, Health, Social & Other Service	761,644	402,758	52.9%
Wholesale & Retail Trade	336,540	235,954	69.9%
Professional & Management	382,087	204,552	53.4%
Arts, Entertainment, Hotel & Food Service	247,977	190,971	76.8%

	Total Private Sector Workers	Ineligible/Uncovered Private Sector Workers	Percent of Private Sector Workers Ineligible/Uncovered
Finance, Insurance & Real Estate	331,479	144,983	43.8%
Construction	144,232	105,065	73.4%
Transport & Warehousing	123,988	83,990	68.3%
Manufacturing	108,806	71,248	65.5%
Information & Communications	88,563	39,909	45.1%
Utilities	10,122	1,629	17.6%
By Age			
Aged 25-54	2,142,445	1,254,640	58.6%
Aged 55+	392,993	226,419	57.4%
By Citizenship Status			
Non-Citizen	583,151	424,588	72.8%
Citizen	1,952,287	1,056,471	54.1%

Source: Schwartz Center for Economic Policy Analysis' calculations based on Current Population Survey, Annual Social and Economic Supplement 2013-2015.

Notes: The sample is limited to residents of NYC aged 25-64 who worked in the previous calendar year. Workers exclude unpaid family workers, public sector workers, and members of the U.S. Armed Forces. Data from 2013-2015 is averaged over three years and includes only private sector workers. Ineligible/Uncovered Private Sector Workers are those whose employer did not offer them a retirement plan. The table should be interpreted as: In 2013-2015 there were an average of 1,313,357 male private sector workers in New York City, of which 811,139 were not offered a retirement plan through their employer or 61.7% of private sector male workers were not offered a retirement plan through their employer.

Summary of State Retirement Initiatives – September 2016

Auto-IRAs ("Secure Choice")		Marketplace		401(k) Plan	
States	**Features**	**States**	**Features**	**States**	**Features**
California **Connecticut** **Illinois** **Maryland** **Oregon**	Mandatory, Auto-enroll with employee opt out Default contribution level Employer threshold/ conditions for mandated participation Employer contributions not permitted (non-ERISA plans) Pooled, professionally managed funds Must keep fees low (.75%-1% range) Market and legal analyses to guide design and implementation	**New Jersey** **Washington**	Managed by a State agency Voluntary participation for employers with less than 100 employees SIMPLE IRA, *my*RA, and payroll deduction IRAs and others can be added Employer contributions encouraged (ERISA plans) Built and funded by private sector Participating providers must offer at least 2 product options Fees=1% or less	**Massachusetts**	Administered by the State Treasurer Voluntary Default contribution For non-profits with twenty employees or less ERISA plan

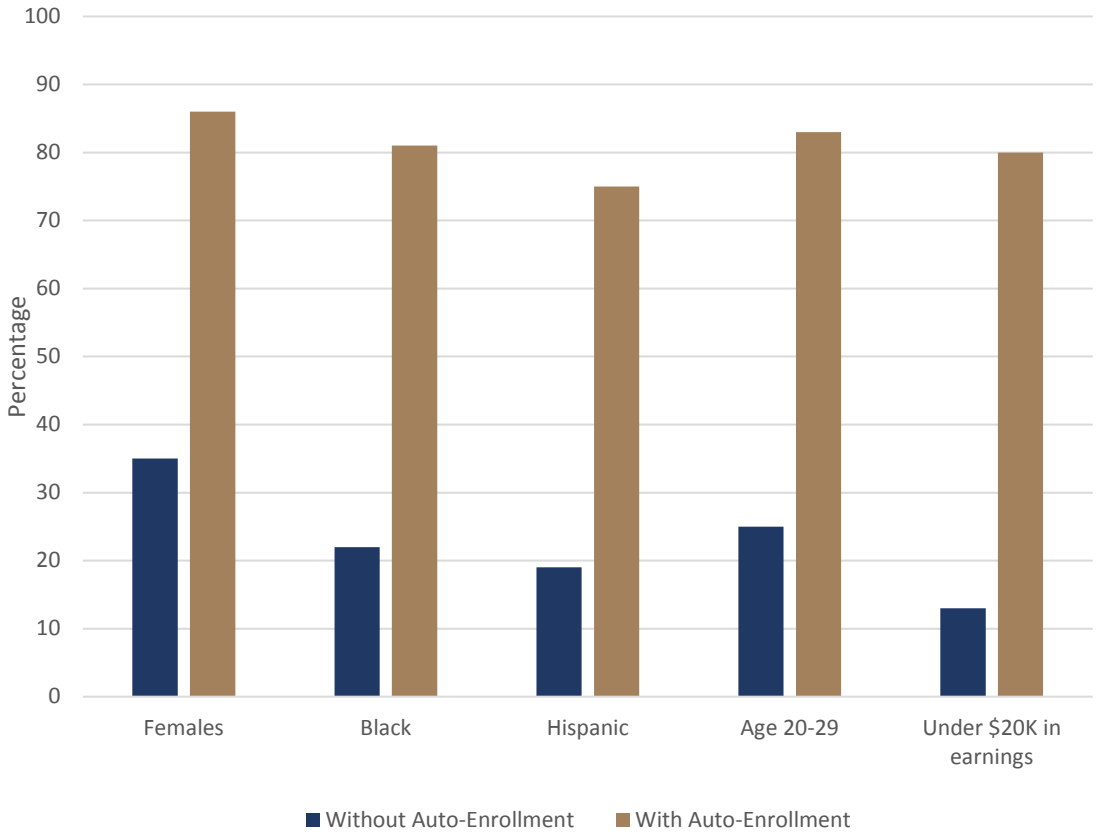
Source: Georgetown Center for Retirement Initiatives.[144]

SEP-IRA and SIMPLE-IRA

	SEP-IRA	SIMPLE-IRA
2016 Maximum Elective Contribution	Employer contributions are limited annually to the smaller of $53,000 or 25% of compensation.	Employer is required to contribute either: 1. Matching contribution up to 3% of compensation, or 2. A 2% contribution for each eligible employee up to compensation limit of $265,000. Employee contributions are voluntary but cannot exceed $12,500.
Contributions	Employers must contribute the same percentage of compensation for all employees. Employees do not contribute. Contributions are made with pre-tax dollars.	Employer must select one of two options for eligible employees. Contributions are made with pre-tax dollars.
Withdrawals and Loan	Same as traditional IRA.	Same as traditional IRA.
Income Limits	Employer contributions are based only on the first $265,000 of compensation.	If employer elects the 2% contribution it is based on the first $265,000.
Taxation of Distributions	Same as traditional IRA.	Same as traditional IRA. Special rule applies to distributions taken within two years of date of participant entering plan.
Required Distributions	Same as traditional IRA.	Same as traditional IRA.

Source: Internal Revenue Service.[145]

Impacts of Automatic Enrollment on 401(k) Participation



Source: Madrian and Shea (2001).[146]

Glossary

401(k) – A defined contribution plan where an employee can make contributions from his or her paycheck either before or after-tax, depending on the options offered in the plan. The contributions go into a 401(k) account, with the employee often choosing the investments based on options provided under the plan. In some plans, the employer also makes contributions such as matching the employee's contributions up to a certain percentage.[147]

401(k) Prototype Plan – Prototype plans are pre-approved plans by the Internal Revenue Service under the Master and Prototype program. A Master and Prototype consists of a basic plan document and an adoption agreement. The basic plan document contains all the non-elective provisions.[148]

Annuity – An annuity is a type of financial product that offers a stream of periodic payments to the holder in return for earlier contributions paid to an insurance provider. Annuities are a method of guaranteeing a future income from current savings. Generally, a customer is only taxed on the proceeds from an annuity when money is withdrawn. Some annuities include a death benefit which transfers some of the value of the annuity to a beneficiary, such as a spouse or a child. Typically a beneficiary will receive either the balance of the remaining principal or an agreed upon minimum income benefit, depending on the terms of the annuity.

There are several types of annuities, each catering to different investor circumstances and needs within two broad categories. An annuity can either be immediate – paying out regular income right after purchase – or deferred – paying out an income stream starting at an agreed upon point in the future.

Both immediate and deferred annuities can vary in their design, features, and benefits. Fixed annuities guarantee customers a predetermined amount of periodic payments and a minimum rate of interest based on the principal invested. A fixed annuity may offer payments for a certain time period or may offer benefits over the holder's lifetime. A variable annuity allows a consumer to invest their principal and receive payments based on the rate of return on investments. An indexed annuity provides customers with a rate of return based on a stock market index. Depending on the contract with the insurer, variable or indexed annuities do not guarantee that the customer's entire original principal will be returned.

Typically, fees and charges may accompany the purchase of an annuity. Annuity holders may be subject to administrative fees, a mortality and expense risk charge that pays for an insurance guarantee on the annuity, a commission to an annuity broker, and surrender fees for withdrawing one's investment before the payout period begins.

While the terms of each annuity are different, most annuities levy a steep fee for withdrawing money in the initial years after purchase. The surrender fee is sometimes calculated as a percentage of the initial benefit and can start as high as 10%. Even when withdrawing early, some annuities remit

some investment return to consumers as well as the principal. Annuity holders withdrawing money before the age of 59 ½ may also be subject to a further 10% IRS penalty.

The federal Thrift Savings Plan (TSP) offers annuities as an option. TSP offers 18 categories of annuity (single life, joint and survivor, etc.). The TSP competitively selects the vendor, generally an insurance company, based on price and monitors performance.

Automatic Enrollment – Automatic enrollment is a feature of a savings plan in which employee contributions to a plan begin without requiring the employee to submit a request to join the plan. When automatic enrollment is present, employees who do not select a contribution amount have a predetermined percentage of their pay deferred as soon as they become eligible for the plan. If employees do not want to participate, they must request to be excluded from the plan.[149]

Commingled Fund – A fund consisting of assets from multiple accounts that are blended together. Sometimes called a "pooled fund."[150]

Default Contribution Rate – In plans with automatic enrollment, the default contribution rate is the percentage of the worker's salary that is contributed to the plan if the worker does not select a contribution rate.[151]

Defined Benefit Plan – A traditional pension plan. A defined benefit plan promises the participant a specified monthly benefit at retirement based on a range of factors.[152]

Defined Contribution Plans – A defined contribution plan is a retirement plan in which contributions are made to an employee's individual account. Unlike defined benefit plans, defined contributions do not promise a participant a monthly benefit.[153]

ERISA – The Employee Retirement Income Security Act of 1974 (ERISA) is a federal law that governs most private sector retirement plans. Among other provisions, ERISA requires plans to provide participants with plan information, sets minimum standards and provides fiduciary responsibilities for those who manage and control plan assets and gives participants the right to sue for benefits and breaches of fiduciary duty.[154]

Fiduciary – Persons or entities who exercise discretionary control or authority over plan management or plan assets, have discretionary authority or responsibility for the administration of a plan, or provide investment advice to a plan for compensation or have any authority or responsibility to do so. The primary responsibility of fiduciaries is to run the plan solely in the interest of participants and beneficiaries and for the exclusive purpose of providing benefits and paying plan expenses.[155]

Form 5500 – Form 5500 is the form that employee benefit plans must file with the Internal Revenue Service and Department of Labor. The form provides information needed to ensure that the plan is being operated in accordance with rules and regulations.[156]

Hardship Withdrawal – A hardship withdrawal occurs when a participant in a plan experiences some type of immediate hardship that requires the participant to withdraw savings from the plan to meet current needs.[157]

Index Fund – An index fund or passively-managed fund invests in the constituent securities that compose a widely followed market index (e.g., S&P 500), usually in exact proportion to the market value of the constituent pieces. There is no attempt to select or weight securities based on their economic prospects.[158]

IRA – An individual retirement account (IRA) is an account controlled by an individual that is set up with a financial institution, such as a bank or a mutual fund company. Individuals may contribute to IRAs to set aside personal savings subject to certain limits. IRAs also can be part of an employer-sponsored plan.[159]

Lifecycle Funds – A Lifecycle Fund, also called a "target date fund (TDF)" is a diversified mutual fund in which the asset allocation within the fund (usually achieved through allocation to several single asset class funds) is automatically adjusted over time to become more conservative as the target date of retirement nears.[160]

Marketplace – An online portal through which employers can compare, and eventually purchase, a retirement plan.

Multiple Employer Plan – A multiple employer plan (MEP) is a plan maintained by two or more employers who are not related.[161]

***my*RA –** *my*RA (*my* Retirement Account) is a Roth IRA developed by the United States Department of the Treasury that invests in Treasury bonds. *my*RA accounts cost nothing to open, have no fees, cannot lose principle, and do not require a minimum amount of savings. *my*RA account balances are limited to $15,000.[162]

Publicly-Enabled – For the purposes of this report, publicly-enabled refers to a plan established pursuant to state or local law that provides private sector workers with access to a workplace retirement savings plan.

Replacement Rate – A replacement rate is the percentage of a worker's pre-retirement income that is paid out to the worker upon retirement.[163]

SEP – A Simplified Employee Pension Plan (SEP) is plan in which an employer contributes on a tax-favored basis to IRAs owned by its employees.[164]

SIMPLE – A Savings Incentive Match Plan for Employees of Small Employers (SIMPLE) is a plan in which a business with 100 or fewer employees can offer retirement benefits through employee salary reductions and employer non-elective or matching contributions (similar to those found in a 401(k) plan).[165]

Thrift Savings Plan – The Thrift Savings Plan (TSP) is a tax-deferred retirement savings and investment plan available to Federal employees.[166]

White Label – A white label plan is a plan whose components are assembled from multiple vendors and offered under a generic name.

Endnotes

[1] Analysis by the Schwartz Center for Economic Policy Analysis at The New School conducted for the Office of the New York City Comptroller. Ruth Helman, Craig Copeland, and Jack VanDerhei, "The 2016 Retirement Confidence Survey: Worker Confidence Stable, Retiree Confidence Continues to Increase," Employee Benefit Research Institute, March 2016: https:///www.ebri.org/pdf/briefspdf/EBRI_IB_422.Mar16.RCS.pdf.

[2] "Employee" and "worker" are used interchangeably in this report.

[3] Analysis by the Schwartz Center for Economic Policy Analysis at The New School conducted for the Office of the New York City Comptroller. According to the Schwartz Center for Economic Analysis, the U.S. Census Bureau's Current Population Survey asks, and the Center uses, the following questions of both employees and the self-employed: "Other than Social Security did any employer or union that you worked for in 2014 have a pension or other type of retirement plan for any of its employees? Were you included in that plan? The Center includes defined benefit, 401(k), SEP and SIMPLE plans but not payroll deduction IRAs, which have very limited take-up. Estimates of the lack of workplace retirement plan access vary based upon the sample of workers reviewed due to factors such as whether full-time workers, part-time workers, or both are included, the age range of workers, and whether the plans include defined benefit, defined contribution and/or IRA plans such as SEP or SIMPLE, whether workers are asked about coverage at their current job only, and whether workers are asked about the availability of a plan on an individual or household basis. There are also variances due to differing interpretations of relevant terms, including "coverage," "ineligible" and "participating, among other factors. For national data estimates, see: Bureau of Labor Statistics; 2015 White House Conference on Aging: https://whitehouseconferenceonaging.gov/2015-WHCOA-Final-Report.pdf); Pew Charitable Trust: http://www.pewtrusts.org/en/research-and-analysis/reports/2016/01/a-look-at-access-to-employer-based-retirement-plans-and-participation-in-the-states); http://www.gao.gov/assets/680/676942.pdf. An analysis by the Center for Retirement Research at Boston College reviews the available data sources and estimates that about 35 percent of workers may lack access to a workplace retirement plan, and of those that have access, about 50 percent participate in the plan: Alicia H. Munnell and Dina Bleckman, "Is Pension Coverage A Problem In The Private Sector?" Center for Retirement Research at Boston College, April 2014: http://crr.bc.edu/wp-content/uploads/2014/04/IB_14-7-508.pdf. Howard Iams, Irena Dushi, and Jules Lichtenstein, "Retirement Plan Coverage by Firm Size: An Update," Social Security Bulletin 75, no. 2 (2015): 41–55, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2604116.

[4] Within the current legal framework, the NYC RSSG identified a set of facts, assumptions, policy issues and potential mechanisms related to increasing retirement security, and then generated and analyzed a range of options. The NYC RSSG report, *An Analysis of Options to Increase Retirement Security for New York City Private Sector Workers* (October 2016), available at http://comptroller.nyc.gov/.

[5] Employee Retirement Income Security Act of 1974 (ERISA), Pub. L. No. 93-406, 88 Stat. 829. Savings Arrangements Established by States for Non-Governmental Employees, 29 CFR § 2510, https://www.federalregister.gov/documents/2016/08/30/2016-20639/savings-arrangements-established-by-states-for-non-governmental-employees.

[6] Interpretive Bulletin Relating to State Savings Programs That Sponsor or Facilitate Plans Covered by the Employee Retirement Income Security Act of 1974, 80 Fed. Reg. 222 (Nov. 18, 2015), http://webapps.dol.gov/FederalRegister/HtmlDisplay.aspx?DocId=28540&AgencyId=8&DocumentType=3.

[7] Savings Arrangements Established by State Political Subdivisions for Non-Governmental Employees, 81 Fed. Reg. 168 (Aug. 30, 2016), https://www.gpo.gov/fdsys/pkg/FR-2016-08-30/pdf/2016-20638.pdf.

[8] In total, the employer may contribute the lesser of $53,000 or 25 percent of wages, subject to non-discrimination and other ERISA requirements: https://www.irs.gov/retirement-plans/plan-participant-employee/retirement-topics-401k-and-profit-sharing-plan-contribution-limits.

[9] 29 U.S.C. § 1132(a).

[10] https://www.irs.gov/retirement-plans/ira-based-plans.

[11]https://www.irs.gov/retirement-plans/plan-participant-employee/retirement-topics-ira-contribution-limits. In a SEP IRA, an employer only may contribute the lesser of $53,000 or 25 percent of wages: https://www.irs.gov/retirement-plans/plan-participant-employee/sep-contribution-limits-including-grandfathered-sarseps.

[12] https://myra.gov/.

[13] Analysis by the Schwartz Center for Economic Policy Analysis at The New School conducted for the Office of the New York City Comptroller. Ruth Helman, Craig Copeland, and Jack VanDerhei, "The 2016 Retirement Confidence Survey: Worker Confidence Stable, Retiree Confidence Continues to Increase," Employee Benefit Research Institute, March 2016: https:///www.ebri.org/pdf/briefspdf/EBRI_IB_422.Mar16.RCS.pdf.

[14] Analysis by the Schwartz Center for Economic Policy Analysis at The New School conducted for the Office of the New York City Comptroller. According to the Schwartz Center for Economic Analysis, the U.S. Census Bureau's Current Population Survey asks, and the Center uses, the following questions of both employees and the self-employed: "Other than Social Security did any employer or union that you worked for in 2014 have a pension or other type of retirement plan for any of its employees? Were you included in that plan?" The Center includes defined benefit, 401(k), SEP and SIMPLE plans but not payroll deduction IRAs, which have very limited take-up. Estimates of the lack of workplace retirement plan access vary based upon the sample of workers reviewed due to factors such as whether full-time workers, part-time workers, or both are included, the age range of workers, and whether the plans include defined benefit, defined contribution and/or IRA plans such as SEP or SIMPLE, whether workers are asked about coverage at their current job only, and whether workers are asked about the availability of a plan

on an individual or household basis. There are also variances due to differing interpretations of relevant terms, including "coverage," "ineligible" and "participating, among other factors. For national data estimates, see: Bureau of Labor Statistics; 2015 White House Conference on Aging: https://whitehouseconferenceonaging.gov/2015-WHCOA-Final-Report.pdf); Pew Charitable Trust: http://www.pewtrusts.org/en/research-and-analysis/reports/2016/01/a-look-at-access-to-employer-based-retirement-plans-and-participation-in-the-states); http://www.gao.gov/assets/680/676942.pdf. An analysis by the Center for Retirement Research at Boston College reviews the available data sources and estimates that about 35 percent of workers may lack access to a workplace retirement plan, and of those that have access, about 50 percent participate in the plan: Alicia H. Munnell and Dina Bleckman, "Is Pension Coverage A Problem In The Private Sector?" Center for Retirement Research at Boston College, April 2014: http://crr.bc.edu/wp-content/uploads/2014/04/IB_14-7-508.pdf. Howard Iams, Irena Dushi, and Jules Lichtenstein, "Retirement Plan Coverage by Firm Size: An Update," Social Security Bulletin 75, no. 2 (2015): 41–55, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2604116.

[15] There have been a number of plans advanced for national retirement savings programs, including the following: Annually since 2009, President Obama has put forward a legislative proposal for a payroll deduction Automatic Enrollment IRA for workers who have no employer-sponsored retirement plan: http://www.treasury.gov/press-center/press-releases/Documents/020212%20Retirement%20Security%20Factsheet.pdf. Former Senator Tom Harkin, (D-IA) offered the USA Retirement Funds Act of 2014 in which all employees would be automatically enrolled in a savings plan at a rate of 6% of pay but workers would be allowed to raise, lower, or stop their contributions: https://www.congress.gov/bill/113th-congress/senate-bill/1979. Senator Rubio (R-FL) has proposed opening up the Thrift Savings Plan, which serves federal employees, to private sector workers: http://www.pionline.com/article/20140513/ONLINE/140519962/sen-rubio-calls-for-opening-tsp-to-private-worker. In 2014, Senator Hatch (R-Utah) introduced the SAFE Act which would expand the use of multiple employer plans, allow public defined benefit plans to purchase private annuities, and create a "starter 401(k) plan" for small private sector employers: https://www.congress.gov/bill/113th-congress/senate-bill/1270?q=%7B%22search%22%3A%5B%22hatch%22%5D%7D. Congressional observers do not believe agreement on legislation to create a new national retirement savings plan is likely in the near future. http://www.pionline.com/article/20140217/PRINT/302179985/companies-bracing-for-1-2-retirement-punch.

[16] Information about state activities can be found at: http://cri.georgetown.edu/.

[17] Savings Arrangements Established by States for Non-Governmental Employees, 29 CFR § 2510, https://www.federalregister.gov/documents/2016/08/30/2016-20639/savings-arrangements-established-by-states-for-non-governmental-employees.

[18] Interpretive Bulletin Relating to State Savings Programs That Sponsor or Facilitate Plans Covered by the Employee Retirement Income Security Act of 1974, 80 Fed. Reg. 222 (Nov. 18, 2015), http://webapps.dol.gov/FederalRegister/HtmlDisplay.aspx?DocId=28540&AgencyId=8&DocumentType=3.

[19] Savings Arrangements Established by State Political Subdivisions for Non-Governmental Employees, 81 Fed. Reg. 168 (Aug. 30, 2016), https://www.gpo.gov/fdsys/pkg/FR-2016-08-30/pdf/2016-20638.pdf.

[20] http://cri.georgetown.edu/.

[21] For example, see: "The Continuing Retirement Savings Crisis," the National Institute on Retirement Security, March 2015: http://www.nirsonline.org/storage/nirs/documents/RSC%202015/final_rsc_2015.pdf.

[22] Individual biographical information for each study group member appears in the NYC RSSG report, *An Analysis of Options to Increase Retirement Security for New York City Private Sector Workers* (October 2016), http://comptroller.nyc.gov/.

[23] Within the current legal framework, the NYC RSSG identified a set of facts, assumptions, policy issues and potential mechanisms related to increasing retirement security, and then generated and analyzed a range of options. This analysis can be found in the NYC RSSG's report: *An Analysis of Options to Increase Retirement Security for New York City Private Sector Workers* published in October 2016 available at: http://comptroller.nyc.gov/.

[24] DOL's Interpretive Bulletin Relating to State Savings Programs That Sponsor or Facilitate Plans Covered by the Employee Retirement Income Security Act of 1974, 80 Fed. Reg. 222 (Nov. 18, 2015), and the proposed DOL regulation, Savings Arrangements Established by States for Non-Governmental Employees, 29 CFR § 2510, referenced state-enabled programs. https://www.gpo.gov/fdsys/pkg/FR-2015-11-18/html/2015-29426.htm and https://www.gpo.gov/fdsys/pkg/FR-2015-11-18/html/2015-29427.htm. The Office of the New York City Comptroller, the Office of the New York City Mayor, and other parties submitted comments urging DOL to permit cities to sponsor such programs, with suggested criteria such as population size to ensure viability. For a copy of the New York City Comptroller's comments, see: https://www.dol.gov/ebsa/pdf/1210-AB71-00038.pdf. The full set of comments are available at: https://www.dol.gov/ebsa/regs/cmt-1210-AB71.html. The Office of the New York City Comptroller subsequently submitted comments in September 2016 on the proposed regulation, Savings Arrangements Established by State Political Subdivisions for Non-Governmental Employees, 81 Fed. Reg. 168 (Aug. 30, 2016), https://www.gpo.gov/fdsys/pkg/FR-2016-08-30/pdf/2016-20638.pdf.

[25] For example, see: Brigitte C. Madrian and Dennis F. Shea, "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior," May 2000: http://www.nber.org/papers/w7682.pdf. Employee Benefit Research Institute, "The Impact of Automatic Enrollment in 401(k) Plans on Future Retirement Accumulations: A Simulation Study Based on Plan Design Modifications of Large Plan Sponsors," April 2010: https://www.ebri.org/pdf/briefspdf/EBRI_IB_04-2010_No341_Auto-Enroll1.pdf. Brigitte C. Madrian, Testimony before the U.S. Senate Committee on Finance, September 16, 2014: http://www.hks.harvard.edu/news-events/news/testimonies/brigitte-madrian-testifies-to-senate-committee-on-finance. David C. John, "The Case for Auto-Enrollment–Stronger than Ever in 2011," Benefits Magazine May 2011: http://www.ifebp.org/inforequest/0159990.pdf. Shlomo Benartzi and Richard H. Thaler, "Behavioral Economics and the Retirement Savings Crisis," March 2013:

http://faculty.chicagobooth.edu/Richard.Thaler/research/pdf/Behavioral%20Economics%20and%20the%20Retirement%20Savings%20Crisis.pdf.

[26] United States Government Accountability Office, "Better Agency Coordination Could Help Small Employers Address Challenges to Plan Sponsorship," March 2012: http://www.gao.gov/assets/590/589055.pdf.

[27] Jack VanDerhei, Sarah Holden, Luis Alonso, Steven Bass, and AnnMarie Pino, "401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2013," Employee Benefit Research Institute, December 2014: https://www.ebri.org/pdf/briefspdf/EBRI_IB_408_Dec14.401(k)-update.pdf.

[28] Workers under 50 years old may contribute up to $18,000 to a 401(k) plan but only $5,500 to an IRA. See: https://www.irs.gov/retirement-plans/plan-participant-employee/retirement-topics-ira-contribution-limits and https://www.irs.gov/retirement-plans/plan-participant-employee/retirement-topics-401k-and-profit-sharing-plan-contribution-limits.

[29] Michael Clingman, Kyle Burkhalter, and Chris Chaplain, "Replacement Rates for Hypothetical Retired Workers," Social Security Administration Office of the Chief Actuary, Actuarial Note Number 2016.9, June 2016: https://www.ssa.gov/oact/NOTES/ran9/an2016-9.pdf.

[30] For example, Charles Schwab recommends that mid-career workers save between 15 and 35 percent of earnings: http://www.schwab.com/public/schwab/nn/articles/How-Much-Should-You-Be-Saving. See: https://www.irs.gov/retirement-plans/plan-participant-employee/retirement-topics-401k-and-profit-sharing-plan-contribution-limits.

[31] https://www.dol.gov/agencies/ebsa/about-ebsa/our-activities/resource-center/faqs/retirement-plans-and-erisa-consumer.

[32] Generally, offering a benefits package can help a company compete for new talent and retain their existing workforce. According to the Employee Benefit Research Institute, having a company offer retirement savings plans are rated as extremely or very important by 70% of workers: https://www.ebri.org/pdf/notespdf/EBRI_Notes_11_Nov15_WBS-PolFor.pdf.

[33] Currently, 50 percent of American workers earning over $100,000 receive an employer match, while only four percent of workers making earning under $30,000 do. http://www.nytimes.com/2014/07/23/opinion/a-401-k-for-all.html. Employer matches can help savers reach their savings target. Overall, employer matches account for more than 35 percent of total contributions to the average worker's 401(k) account. Indeed, one survey by Fidelity found that 43 percent of employees were willing to absorb a pay reduction in return for a higher employer match. http://time.com/money/3101525/why-workers-would-take-a-pay-cut-for-this-retirement-benefit/. See also: John Beshears, James J. Choi, David Laibson, and Brigitte C. Madrian, "The Impact of Employer Matching on Savings Plan Participation under Automatic Enrollment," August 2007: http://www.hbs.edu/faculty/Publication%20Files/impact_of_employer_matching_f7c59a49-f2bd-4713-ba12-a960b5e66008.pdf.

[34] http://www.wsj.com/articles/401-k-s-tweak-how-they-charge-for-expenses-1463736600.

[35] This also applies to SEP or SIMPLE IRA plans, which are also employer-sponsored. If an employee or his/her spouse is covered by an employer-sponsored retirement plan and income exceeds certain levels, they may not be able to deduct their entire contribution. See: https://www.irs.gov/Retirement-Plans/Retirement-Plans-FAQs-regarding-IRAs-Contributions.

[36] DOL Reporting and Disclosure Guide for Employee Benefit Plans, https://www.dol.gov/sites/default/files/ebsa/about-ebsa/our-activities/resource-center/publications/rdguide.pdf; 29 U.S.C. § 1002(21)(A); 29 U.S.C. § 1133; 29 CFR Part 2560.503-1.

[37] 29 U.S.C. § 1132(a).

[38] IRS 401(k) Resource Guide - Plan Participants - General Distribution Rules: https://www.irs.gov/retirement-plans/plan-participant-employee/401k-resource-guide-plan-participants-general-distribution-rules. 26 U.S.C. § 401(a)(4). For example, the plan may not "discriminate against non-highly compensated employees."

[39] Pre-approved plans are either Master and Prototype (M&P) or Volume Submitter (VS). https://www.irs.gov/retirement-plans/types-of-pre-approved-retirement-plans.

[40] IRS Form 5500 Corner: https://www.irs.gov/Retirement-Plans/Form-5500-Corner.

[41] A distribution is considered "qualified" if the account is held for at least five years and made due to disability; on or after death; or, on or after age 59½.

[42] The elective contribution limitation is by individual rather than by plan. See: https://www.irs.gov/retirement-plans/plan-sponsor/401-k-resource-guide-plan-sponsors-general-distribution-rules and https://www.irs.gov/Retirement-Plans/Roth-Comparison-Chart.

[43] Background about SEP and SIMPLE plans can be found at: https://www.irs.gov/retirement-plans/ira-based-plans.

[44] In general, distributions from Roth 401(k) accounts can be rolled over to a Roth IRA, or to other Roth 401(k) plans. https://www.irs.gov/pub/irs-tege/rollover_chart.pdf.

[45] The DOL also asserts that a state adopting an ERISA plan should not be held preempted as long as it implements the plan in a manner that is consistent with ERISA: "…ERISA does not supersede state law to the extent it merely creates an arrangement that is fully governed by ERISA." IRS approval is also required, and the plan would be subject to both ERISA and IRS requirements. Interpretive Bulletin Relating to State Savings Programs That Sponsor or Facilitate Plans Covered by the Employee Retirement Income Security Act of 1974, 80 Fed. Reg. 222 (Nov. 18, 2015), http://webapps.dol.gov/FederalRegister/HtmlDisplay.aspx?DocId=28540&AgencyId=8&DocumentType=3.

[46] DOL Advisory Opinion 2012-04A, https://www.dol.gov/agencies/ebsa/employers-and-advisers/guidance/advisory-opinions/2012-04a. Notably, the IRS standards for determining a qualified multiple employer plan differ from those of the Department of Labor: https://www.irs.gov/irm/part7/irm_07-011-007.html.

[47] For additional background on the rural electric co-op plans, see: http://www.help.senate.gov/imo/media/doc/Stephen3.pdf.

[48] http://www.plansponsor.com/Lawmakers-Hear-Wide-Support-for-Open-MEPs/.

[49] There is significant interest in Congress in expanding unrelated employer's ability to use Multiple Employer Plans (Open MEPs) to provide their employees with access to retirement savings plans. In September 2016, the Senate Finance Committee passed legislation to ease some of the regulatory constraints that currently prevent employers from participating in an Open MEP. Additionally, in 2015 a bipartisan group of Senators and Congressmen introduced S. 266 and H.R. 577, more comprehensive legislation that would expand the use of Open MEPs. The White House announced support for efforts to expand access to Open MEPs in January 2016. See: https://www.whitehouse.gov/the-press-office/2016/01/26/fact-sheet-building-21st-century-retirement-system and https://www.congress.gov/bill/114th-congress/house-bill/557?q=%7B%22search%22%3A%5B%22Retirement+Security+Act+of+2015%22%5D%7D&resultIndex=2 and https://www.congress.gov/bill/114th-congress/senate-bill/266?q=%7B%22search%22%3A%5B%22s266%22%5D%7D&resultIndex=1 and http://www.finance.senate.gov/imo/media/doc/Results%20of%20Executive%20Session.09.21.2016.pdf.

[50] https://www.whitehouse.gov/the-press-office/2016/01/26/fact-sheet-building-21st-century-retirement-system.

[51] DOL notes that "[w]hen an employer joins a carefully structured MEP, the employer is not the "sponsor' of the plan under ERISA, and also would not act as a plan administrator or named fiduciary. Those fiduciary roles, and attendant fiduciary responsibilities, would be assigned to other parties responsible for administration and management of the state MEP." The assigned parties would be responsible for ERISA compliance: "…a multiple employer plan that a state offers to employers would have to comply with the same ERISA requirements and would have to be subject to the same remedies as any private party offering such products and services." Interpretive Bulletin Relating to State Savings Programs That Sponsor or Facilitate Plans Covered by the Employee Retirement Income Security Act of 1974, 80 Fed. Reg. 222 (Nov. 18, 2015), http://webapps.dol.gov/FederalRegister/HtmlDisplay.aspx?DocId=28540&AgencyId=8&DocumentType=3. For example, under the so-called "bad apple" rule, if one employer participating in a MEP violates a tax requirement, the IRS can technically disqualify the entire plan from favorable income tax treatment. In reality, the IRS self-correction and other remediation programs should make plan disqualification extremely unlikely. Further, there are bi-partisan efforts in Congress to repeal the bad apple rule.

[52] Interpretive Bulletin Relating to State Savings Programs That Sponsor or Facilitate Plans Covered by the Employee Retirement Income Security Act of 1974, 80 Fed. Reg. 222 (Nov. 18, 2015), http://webapps.dol.gov/FederalRegister/HtmlDisplay.aspx?DocId=28540&AgencyId=8&DocumentType=3.

[53] Information about 401(k) plans is available at: https://www.irs.gov/retirement-plans/401k-resource-guide.

[54] http://www.thefiscaltimes.com/Columns/2016/03/04/Retirement-Revolution-Failed-Why-401k-Isn-t-Working.

[55] The recently-released proposal, *A Comprehensive Plan to Confront the Retirement Savings Crisis*, advocates mandatory national private accounts that would provide lifetime payments. The plan seeks higher returns through illiquid investments in a broad set of asset classes. Investors would have access to a wider variety of asset classes with the potential for higher returns over a long investment time horizon. As with pension funds, the funds could not be withdrawn before retirement. Savers would have the opportunity to select a new manager each year for prospective contributions only. While investors would be guaranteed at least a one to two percent return each year, the expectation would be for average returns that exceed that amount over the long term. Investment managers would be need to demonstrate the capacity to insure against the risk that returns would not meet the guarantee. See: http://www.economicpolicyresearch.org/images/Retirement_Project/Retirement_Security_Guaranteed_digital.pdf.

[56] Including the self-employed in every component of the Nest Egg Plan is strongly encouraged to further the goal of reaching all workers without access to a workplace retirement plan. However, there is no mechanism to include the self-employed in the automatic enrollment mandate, and it might not make sense operationally. The same goal could be achieved by allowing the self-employed to voluntarily opt in to the NYC Roth IRA.

[57] Savings Arrangements Established by States for Non-Governmental Employees, https://www.federalregister.gov/documents/2016/08/30/2016-20639/savings-arrangements-established-by-states-for-non-governmental-employees.

[58] Craig Copeland, "2014 Update of the EBRI IRA Database: IRA Balances, Contributions, Rollovers, Withdrawals, and Asset Allocation," August 2016: https://www.ebri.org/pdf/briefspdf/EBRI_IB_424.Aug16.IRAs.pdf.

[59] United States Government Accountability Office, "Government Actions Could Encourage More Employers to Offer IRAs to Employees," June 26, 2008: http://www.gao.gov/assets/130/120534.pdf.

[60] J. Mark Iwry and David C. John, "Pursuing Universal Retirement Security Through Automatic IRAs": https://www.brookings.edu/wp-content/uploads/2016/06/07_automatic_ira_iwry.pdf. The author's state: "it appears that few employers actually have direct-deposit or payroll-deduction IRAs— at least in a way that actively encourages employees to take advantage of the arrangement."

[61] Savings Arrangements Established by States for Non-Governmental Employees, 29 CFR § 2510, https://www.federalregister.gov/documents/2016/08/30/2016-20639/savings-arrangements-established-by-states-for-non-governmental-employees.

[62] Savings Arrangements Established by States for Non-Governmental Employees, 29 CFR § 2510, https://www.federalregister.gov/documents/2016/08/30/2016-20639/savings-arrangements-established-by-states-for-non-governmental-employees.

[63] https://www.ssa.gov/pubs/EN-05-10003.pdf.

[64] An analysis by the Office of the New York City Comptroller found that many millennials are employed in low-wage industries making less than previous generations along with high student loan debt:http://comptroller.nyc.gov/wp-content/uploads/documents/NYC_Millennials_In_Recession_and_Recovery.PDF.

[65] For example, eligibility for Medicaid, SSI and other benefits for low-income individuals are means-tested. Savings above a certain level could disqualify a recipient from continued participation or upon initial application. For SNAP, some restrictions may apply. Public housing may count distributions from an IRA if they are reported as income.

[66] Michael Clingman, Kyle Burkhalter, and Chris Chaplain, "Replacement Rates for Hypothetical Retired Workers," Social Security Administration Office of the Chief Actuary, Actuarial Note Number 2016.9, June 2016: https://www.ssa.gov/oact/NOTES/ran9/an2016-9.pdf.

[67] The DOL's Final Rule allowing states to establish savings arrangements for non-governmental employees allows states to "[reimburse] employers for their costs under the payroll deduction savings program" but does not allow states to "provide rewards for employers that incentivize them to participate in state programs in lieu of establishing employee pension benefit plans." See: Savings Arrangements Established by States for Non-Governmental Employees, 29 CFR § 2510, https://www.federalregister.gov/documents/2016/08/30/2016-20639/savings-arrangements-established-by-states-for-non-governmental-employees.

[68] https://www.federalregister.gov/documents/2016/08/30/2016-20639/savings-arrangements-established-by-states-for-non-governmental-employees.

[69] The DOL's Final Rule allowing states to establish savings arrangements for non-governmental employees allows investments in vehicles where "immediate liquidity is not possible." As discussed in greater detail in the second portion of this section, "Significant Common Features," the NYC Nest Egg options, including the NYC Roth IRA, would rely solely on lifecycle funds for investment. See: Savings Arrangements Established by States for Non-Governmental Employees, 29 CFR § 2510, https://www.federalregister.gov/documents/2016/08/30/2016-20639/savings-arrangements-established-by-states-for-non-governmental-employees.

[70] Savings Arrangements Established by States for Non-Governmental Employees, 29 CFR § 2510, https://www.federalregister.gov/documents/2016/08/30/2016-20639/savings-arrangements-established-by-states-for-non-governmental-employees.

[71] Analysis by the Schwartz Center for Economic Policy Analysis at The New School conducted for the Office of the New York City Comptroller.

[72] The DOL's Final Rule allowing states to establish savings arrangements for non-governmental employees allows states to "[reimburse] employers for their costs under the payroll deduction savings program" but does not allow states to "provide rewards for employers that incentivize them to participate in state programs in lieu of establishing employee pension benefit plans." See: Savings Arrangements Established by States for Non-Governmental Employees, 29 CFR § 2510,

https://www.federalregister.gov/documents/2016/08/30/2016-20639/savings-arrangements-established-by-states-for-non-governmental-employees.

[73] Anyone with earned income, including sole proprietors and freelancers, can contribute to an IRA. It is probable that the program could be made available to them without mandate or automatic enrollment. Because withholding from a paycheck is not an option, there could be added recordkeeping costs because contributions would be made via personal check or bank wire. See: Savings Arrangements Established by States for Non-Governmental Employees, 29 CFR § 2510, https://www.federalregister.gov/documents/2016/08/30/2016-20639/savings-arrangements-established-by-states-for-non-governmental-employees.

[74] William B. Fornia and Nari Rhee, "Still a Better Bang for the Buck: An Update on the Economic Efficiencies of Defined Benefit Pensions," National Institute on Retirement Security, December 2014: http://www.nirsonline.org/storage/nirs/documents/Still%20a%20Better%20Bang/bangforbuck_2014.pdf.

[75] The DOL's Final Rule allows states to impose conditions on withdrawals. See: Savings Arrangements Established by States for Non-Governmental Employees, 29 CFR § 2510, https://www.federalregister.gov/documents/2016/08/30/2016-20639/savings-arrangements-established-by-states-for-non-governmental-employees.

[76] Alicia H. Munnell and Anthony Webb, "The Impact of Leakages from 401(k)s and IRAs," Center for Retirement Research at Boston College, February 2015: http://crr.bc.edu/wp-content/uploads/2015/02/wp_2015-2.pdf.

[77] The example of countries like Mexico in developing affordable, easy-easy-to-use systems for collecting funds offers a possible model: Mitchell, Olivia S. Evaluating administrative costs in Mexico's AFORES Pension System. University of Pennsylvania, 1999; Mitchell, Olivia S. and Fields, Gary S. Designing Pension Systems in Developing Countries. University of Pennsylvania, 1996; Mitchell, Olivia S. Personal Retirement Accounts and Social Security Reform. University of Pennsylvania, 2002. Also, see the U.S. Treasury Department's proposal for a national Auto-IRA program, which contemplates use of the existing payroll tax deposit and reporting system to help with the administration. https://www.treasury.gov/resource-center/tax-policy/Documents/General-Explanations-FY2016.pdf.

[78] Roth IRAs allow for early withdrawals of contributions tax and penalty-free whereas traditional IRAs impose a 10 percent tax penalty on early withdrawals. https://www.irs.gov/retirement-plans/plan-sponsor/401-k-resource-guide-plan-sponsors-general-distribution-rules. https://www.irs.gov/Retirement-Plans/Roth-Comparison-Chart.

[79] https://www.irs.gov/retirement-plans/roth-comparison-chart and https://www.irs.gov/retirement-plans/traditional-and-roth-iras.

[80] http://www.riabiz.com/a/4937944016093184/why-luring-401k-assets-to-ira-rollovers-in-a-post-dol-rule-world-remains-childs-play-which-keeps-76-trillion-in-the-ira-game-and-growing.

[81] John Beshears, James J. Choi, David Laibson, and Brigitte C. Madrian, "The Importance of Default Options for Retirement Savings Outcomes: Evidence from the United States," February 2006: http://www.nber.org/papers/w12009.

[82] http://www.bls.gov/opub/mlr/2015/article/automatic-enrollment-employer-match-rates-and-employee-compensation-in-401k-plans.htm.

[83] Michael Clingman, Kyle Burkhalter, and Chris Chaplain, "Replacement Rates for Hypothetical Retired Workers," Social Security Administration Office of the Chief Actuary, Actuarial Note Number 2016.9, June 2016: https://www.ssa.gov/oact/NOTES/ran9/an2016-9.pdf. As shown in Table 1, replacement rates drop considerably for workers who retire at age 62. Low-income workers, especially those whose jobs involve manual labor, are more likely to retire before reaching full retirement age. A low earner who retires at age 62 in 2016 will, on average, replace only 44.2% of annual earnings.

[84] Brigitte C. Madrian and Dennis F. Shea, "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior," May 2000: http://www.nber.org/papers/w7682.pdf.

[85] James J. Choi, David Laibson, Brigitte C. Madrian, and Andrew Metrick, "For Better or For Worse: Default Effects and 401(k) Savings Behavior," December 2001: http://www.nber.org/papers/w8651.

[86] Michael Clingman, Kyle Burkhalter, and Chris Chaplain, "Replacement Rates for Hypothetical Retired Workers," Social Security Administration Office of the Chief Actuary, Actuarial Note Number 2016.9, June 2016: https://www.ssa.gov/oact/NOTES/ran9/an2016-9.pdf.

[87] As noted this may not be true for all younger workers. Greater emphasis on accumulating savings may be indicated for high-earning young workers, particularly those employed in fields with cyclical periods of unemployment.

[88] DCIIA Plan Sponsor Survey 2014: https://www.shrm.org/ResourcesAndTools/hr-topics/benefits/Documents/white%20paper_6.2015_plan%20sponsor%20survey%20focus%20on%20automatic%20plan%20features.pdf. One study found that employees who opted into an automatic annual three percentage point contribution increase saw their average contribution rate increase almost four-fold over the course of four years, from 3.5% of pay to 13.5% of pay. In contrast, employees who did not elect contribution escalation increased their average contribution rate by much less over the same time period, from 5.3 percent to 7.5 percent. Richard Thaler and

Shlomo Benartzi, "Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving," August 2001, http://www.retirementmadesimpler.org/Library/Save%20More%20Tomorrow.pdf.

[89] DCIIA Plan Sponsor Survey 2014: https://www.shrm.org/ResourcesAndTools/hr-topics/benefits/Documents/white%20paper_6.2015_plan%20sponsor%20survey%20focus%20on%20automatic%20plan%20features.pdf.

[90] Research has found that macroeconomic factors like a decline in the value of housing equity—which is a larger component of wealth than financial wealth for most households- can present a risk. (Poterba, Venti, and Wise 2011). In addition, "[w]hile financial markets and the housing market may tend to rebound over time, a person who plans for retirement assuming a particular rate of inflation can end up with real resources far below planned levels if inflation turns out to be even modestly higher than anticipated (and real rates of return correspondingly lower)." https://www.brookings.edu/wp-content/uploads/2016/07/Abraham_Harris_paper_rev4.pdf.

[91] For example, the New York City Deferred Compensation Plan provides worksheets and calculators to help participants determine and/or adjust the contribution rate. http://www1.nyc.gov/site/olr/financialplanning/financial-planning-retirement-planning-tools.page.

[92] A survey by the Center for Retirement Research at Boston College of uncovered workers in Connecticut showed that auto-escalation to 10 percent increased the opt-out rate. Anek Belbase, Alicia H. Munnell, Nari Rhee, and Geoffrey T. Sanzenbacher, "State Savings Initiatives: Lessons from California and Connecticut," Center for Retirement Research at Boston College, March 2016: http://crr.bc.edu/wp-content/uploads/2016/03/IB_16-5.pdf.

[93] To study participation, California and Connecticut performed separate online benefit-enrollment experiments in which participants were randomly assigned to programs with different contribution rates and asked about their decisions to remain enrolled or opt out. Anek Belbase, Alicia H. Munnell, Nari Rhee, and Geoffrey T. Sanzenbacher, "State Savings Initiatives: Lessons from California and Connecticut," Center for Retirement Research at Boston College, March 2016: http://crr.bc.edu/wp-content/uploads/2016/03/IB_16-5.pdf.

[94] Beverly J. Orth, "Managing Longevity Risk In U.S. Retirement Plans Through Mandatory Annuitization," North American Actuarial Journal, 2006: https://www.soa.org/Library/Journals/NAAJ/2006/july/naaj0603_5.aspx.

[95] A 2015 survey from AARP found that 66 percent of Americans believe Social Security to be one of the nation's most important government programs. See: http://www.aarp.org/content/dam/aarp/research/surveys_statistics/econ/2015/social-security-80th-anniversary-report.pdf.

[96] AON Hewitt, "2014 Hot Topics in Retirement: Building a Strategic Focus," http://www.aon.com/attachments/human-capital-consulting/2014_Hot-Topics-Retirement_Report_vFinal.pdf.

[97] https://www.dol.gov/sites/default/files/ebsa/researchers/analysis/retirement/Deloitte2011.pdf. For a detailed discussion and review of the literature regarding employee and employer concerns about annuities, see: https://www.brookings.edu/wp-content/uploads/2016/07/Abraham_Harris_paper_rev4.pdf. For example, employers have expressed concerns about potential liability as a fiduciary arising from the selection process—insurance companies offer a vast array of options, and some insurance companies have encountered financial difficulties. Administrative issues arising from changing recordkeepers or an employee changing jobs have also been cited as obstacles.

[98] Jeffrey R. Brown, Arie Kapteyn, Erzo F. P. Luttmer, and Olivia S. Mitchell, "Complexity as a Barrier to Annuitization: Do Consumers Know How to Value Annuities?" March 2013: http://gflec.org/wp-content/uploads/2015/08/BKLM_SS-Annuity-paper-2013-03-12-b.pdf.

[99] Linda Court Salisbury and Gergana Y. Nenkov, "Solving the Annuity Puzzle: The Role of Mortality Salience in Retirement Savings Decumulation Decisions," Journal of Consumer Psychology, October 2015: https://www2.bc.edu/linda-salisbury/Salisbury_and_Nenkov_2015_Annuity_Puzzle_and_Mortality_Salience.pdf.

[100] Jeffrey R. Brown, "Rational and Behavioral Perspectives on the Role of Annuities In Retirement Planning," National Bureau of Economic Research Working Paper, October 2007: https://core.ac.uk/download/pdf/6645687.pdf?repositoryId=153.

[101] For example, financial advisors often suggest that retirees withdraw up to four percent annually from their savings. Not only might retirees be unwilling, unable, or unaware of this advice, but also, in the current low-interest environment, such guidance might deplete savings more quickly than projected.

[102] Applies only to plans that pay out income over a life expectancy. Benjamin Goodman and Michael Heller, TIAA-CREF Actuarial Consulting Services. "Annuities: Now, Later, Never?" Trends and Issues, TIAA-CREF Institute, October 2006: https://www.tiaainstitute.org/public/pdf/institute/research/trends_issues/tr100106b.pdf.

[103] 26 CFR § 1 and § 602 (2014).

[104] These products, known as deferred annuities, provide longevity insurance. Under the new rules, eligible participants are permitted to use the lesser of 25% of their account balance, or $125,000, and must begin collecting by age 85: http://www.nytimes.com/2014/07/02/your-money/annuities/longevity-insurance-is-new-retirement-plan-option.html?_r=0.

[105] A study from the Insured Retirement Institute in January 2015 found that 90 percent of survey respondents believed that receiving lifetime estimates of their retirement savings would help them better prepare for retirement. See: https://www.myirionline.org/docs/default-source/research/consumer-preferences-for-lifetime-income-estimates-on-401(k)-statements-web.pdf?sfvrsn=2.

[106] http://www.businesswire.com/news/home/20100914007127/en/TIAA-CREF-Endorses-Lifetime-Income-Options-Workplace-Retirement.

[107] For example, Hueler Associates offers such a platform. https://www.hueler.com/about-us.asp.

[108] For a discussion of default annuitization see Jeffrey R. Brown, "Automatic Lifetime Income as a Path to Retirement Income Security," August 7, 2009: http://web.law.columbia.edu/sites/default/files/microsites/tax-policy/files/2009/Brown_Automatic%20Lifetime%20Income_With%20Cover.pdf.

[109] Barry P. Bosworth, Gary Burtless, and Ken Zhang, "What growing life expectancy means for the promise of social security," February 12, 2016: https://www.brookings.edu/research/what-growing-life-expectancy-gaps-mean-for-the-promise-of-social-security/#recent/.

[110] Combining all of these techniques is likely to produce a voluntary annuitization rate of 10 to 20 percent. Communication between Professor David Laibson and the Office of the New York City Comptroller, February 2016.

[111] This estimate is based on communication between Professor David Laibson and the Office of the Comptroller, September 2016.

[112] Information about the program is available at: https://myra.gov.

[113] This also applies to SEP-IRA or SIMPLE-IRA plans, which are also employer-sponsored. If an employee or his/her spouse is covered by an employer-sponsored retirement plan and income exceeds certain levels, they may not be able to deduct their entire contribution. See: https://www.irs.gov/Retirement-Plans/Retirement-Plans-FAQs-regarding-IRAs-Contributions.

[114] https://www.tsp.gov/index.html.

[115] Morningstar, "Active/Passive Barometer," June 2015: http://corporate.morningstar.com/US/documents/ResearchPapers/MorningstarActive-PassiveBarometerJune2015.pdf.

[116] https://www.sec.gov/investor/alerts/ib_fees_expenses.pdf.

[117] Morningstar, "2015 Fee Study: Investors Are Driving Expense Ratios Down": https://news.morningstar.com/pdfs/2015_fee_study.pdf.

[118] 1. Fidelity Freedom® 2050 Fund Expense Ratio as of 5/28/2016 is 0.77% (Active); Fidelity Freedom® Index 2050 Fund - Investor Class Expense Ratio as of 5/28/2016 is 0.24% (Index). Retrieved on 9/29/2016. https://fundresearch.fidelity.com/mutual-funds/fees-and-prices/315792416 and https://fundresearch.fidelity.com/mutual-funds/fees-and-prices/315793869. 2. T. Rowe Price Retirement 2050 Fund Expense Ratio as of 05/31/2015 is 0.75% (Active). Retrieved on 9/29/2016. http://www3.troweprice.com/fb2/fbkweb/expenses.do?ticker=TRRMX. T. Rowe Price does not offer passively-managed 2050 lifecycle funds. 3. Vanguard Target Retirement 2050 Fund Expense Ratio as of 01/28/2016 is 0.16% (Index). Retrieved on 9/29/2016. https://personal.vanguard.com/us/funds/snapshot?FundId=0699&FundIntExt=INT. Vanguard does not offer actively-managed 2050 lifecycle funds.

[119] For example, the Pension Protection Act of 2006 made it easier for employers to automatically enroll employees in employer-sponsored plans that encouraged the use of lifecycle-type investments: https://www.dol.gov/sites/default/files/ebsa/about-ebsa/our-activities/resource-center/fact-sheets/fsQDIA.pdf.

[120] After a survey of plan participants found that only 16 percent of TSP participants made any movement to rebalance their investment funds each year, the TSP introduced lifecycle target date investment options as the default investment option. For information about the TSP see: http://goo.gl/793RbJ and https://www.tsp.gov/PDF/bulletins/15-02.html; https://www.tsp.gov/PDF/formspubs/FundsL.pdf.

[121] Investment Company Institute and Employee Benefit Research Institute, "401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2014," April 2016: https://www.ici.org/pdf/per22-03.pdf.

[122] For example, the Obama Administration's proposal to require certain employers to automatically enroll certain employees in IRAs encourages investment in low-cost funds. See: https://www.treasury.gov/resource-center/tax-policy/Documents/General-Explanations-FY2016.pdf.

[123] TIAA-CREF Institute, "Understanding Risk Taking in Retirement Savings Through Attitude," November 2008: https://www.tiaainstitute.org/public/pdf/institute/research/trends_issues/tr110108.pdf.

[124] Alicia H. Munnell, Jen-Pierre Aubry, and Josh Hurwitz, "How Sensitive Is Public Pension Funding to Investment Returns?" Center for Retirement Research at Boston College, September 2013: http://crr.bc.edu/wp-content/uploads/2013/09/slp_34-508.pdf.

[125] https://www.ici.org/pubs/faqs/faqs_target_date.

[126] For example, see: Rowland Davis, Nayla Kazzi, and David Madland, "The Promise and Peril of a Model 401(k) Plan," Center for American Progress, April 15, 2010: https://www.americanprogress.org/issues/economy/news/2010/04/15/7636/the-promise-and-peril-of-a-model-401k-plan/.

[127] https://www.tsp.gov/InvestmentFunds/FundsOverview/index.html.

[128] https://www.tsp.gov/InvestmentFunds/FundOptions/fundPerformance_G.html.

[129] https://www.tsp.gov/InvestmentFunds/FundsOverview/comparisonMatrix.html.

[130] The TSP hired an outside consultant (Mercer Investment Consulting) to engineer lifecycle funds based off existing TSP investment options. Mercer modeled potential glide paths using stochastic (estimating probabilities of outcomes) modeling of results under economic assumptions about future performance. Each year, the Federal Retirement Thrift Investment Board slightly retools the formulas, changing the glide path to match market conditions. For information about the TSP see: http://goo.gl/793RbJ. https://www.tsp.gov/PDF/bulletins/15-02.html. https://www.tsp.gov/PDF/formspubs/FundsL.pdf.

[131] United States Government Accountability Office, "Increased Educational Outreach and Broader Oversight May Help Reduce Plan Fees," April 2012: http://www.gao.gov/assets/600/590359.pdf.

[132] For example, see: Brigitte C. Madrian and Dennis F. Shea, "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior," May 2000: http://www.nber.org/papers/w7682.pdf. Employee Benefit Research Institute, "The Impact of Automatic Enrollment in 401(k) Plans on Future Retirement Accumulations: A Simulation Study Based on Plan Design Modifications of Large Plan Sponsors," April 2010: https://www.ebri.org/pdf/briefspdf/EBRI_IB_04-2010_No341_Auto-Enroll1.pdf. Brigitte C. Madrian, Testimony before the U.S. Senate Committee on Finance, September 16, 2014: http://www.hks.harvard.edu/news-events/news/testimonies/brigitte-madrian-testifies-to-senate-committee-on-finance. David C. John, "The Case for Auto-Enrollment–Stronger than Ever in 2011," Benefits Magazine May 2011: http://www.ifebp.org/inforequest/0159990.pdf. Shlomo Benartzi and Richard H. Thaler, "Behavioral Economics and the Retirement Savings Crisis," March 2013: http://faculty.chicagobooth.edu/Richard.Thaler/research/pdf/Behavioral%20Economics%20and%20the%20Retirement%20Savings%20Crisis.pdf.

[133] For an analysis of savings rates among income groups in the United States see: http://www.businessinsider.com/chart-savings-rate-by-income-level-2013-3.

[134] https://www.whitehouse.gov/the-press-office/2016/01/26/fact-sheet-building-21st-century-retirement-system-0.

[135] Savings Arrangements Established by States for Non-Governmental Employees, 29 CFR § 2510, https://www.federalregister.gov/documents/2016/08/30/2016-20639/savings-arrangements-established-by-states-for-non-governmental-employees.

[136] http://www.wsj.com/articles/401-k-s-tweak-how-they-charge-for-expenses-1463736600.

[137] Research from the Center for Retirement Research at Boston College prepared for the Office of the New York City Comptroller. See also: http://laborcenter.berkeley.edu/pdf/2016/CA-Secure-Choice-4-FinancialFeasibility&EmployerCosts.pdf and http://www.osc.ct.gov/crsb/docs/11_04_15/Oliver%20Wyman%20-%20CRSB%20Retirement%20Program%20Financial%20Feasibility%20Analysis%20-%20Results.pdf.

[138] Hewitt, "The Erosion of Retirement Security From Cash-Outs: Analysis and Recommendations": http://www.hreonline.com/pdfs/05012010Extra_HewittRetirementStudy.pdf. https://www.irs.gov/uac/newsroom/tax-rules-on-early-withdrawals-from-retirement-plans. http://www.reuters.com/article/us-column-miller-cashouts-idUSBREA1C1HN20140213.

[139] Thirty-five percent of participants in plans administered by Fidelity cashed out their 401(k) balances in 2014, however, this figure does not control for age. Research by The New School using SIPP data found that leakage before age 65 is about 11 percent per year: http://www.economicpolicyresearch.org/images/docs/research/retirement_security/Household_Economic_Shocks_Increase_Retirement_Wealth_Inequality.pdf.

[140] http://www.401khelpcenter.com/press_2015/pr_cerulli_121615.html#.V29FLWb9SH8.

[141] See, for example: https://annual.cfainstitute.org/2016/05/10/best-practices-in-pension-fund-management-the-canadian-model/.

[142] Basic financial education accompanied by an outreach campaign focusing on the importance of saving may help fuel participation. For example, see America Saves: http://www.americasaves.org/.

[143] While improving financial literacy benefits retirement savings preparation, a discussion of the limits of financial literacy can be found at: http://www.theatlantic.com/business/archive/2016/05/financial-literacy/480807/.

[144] http://cri.georgetown.edu/wp-content/uploads/2014/12/GUCRI_Antonelli_WEFPresentation6-8-16FINALtoJRS-2.pdf. For a summary of all state activity since 2012, see: http://cri.georgetown.edu/states/.

[145] https://www.irs.gov/retirement-plans/retirement-plans-faqs-regarding-simple-ira-plans. https://www.irs.gov/retirement-plans/choosing-a-retirement-plan-simple-ira-plan.

[146] Brigitte C. Madrian and Dennis F. Shea, "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior," The Quarterly Journal of Economics, November 2001: http://www.retirementmadesimpler.org/Library/The%20Power%20of%20Suggestion-%20Inertia%20in%20401(k).pdf.

[147] https://www.irs.gov/retirement-plans/plan-participant-employee/definitions.

[148] https://www.irs.gov/retirement-plans/types-of-pre-approved-retirement-plans.

[149] http://www.bls.gov/opub/mlr/2015/article/automatic-enrollment-employer-match-rates-and-employee-compensation-in-401k-plans.htm.

[150] http://www.investopedia.com/terms/c/commingledfund.asp.

[151] http://www.bls.gov/opub/mlr/2015/article/automatic-enrollment-employer-match-rates-and-employee-compensation-in-401k-plans.htm#_edn23.

[152] https://www.irs.gov/retirement-plans/plan-participant-employee/definitions.

[153] https://www.irs.gov/retirement-plans/plan-participant-employee/definitions.

[154] https://www.irs.gov/retirement-plans/plan-participant-employee/definitions.

[155] https://www.dol.gov/general/topic/health-plans/fiduciaryresp.

[156] https://www.dol.gov/agencies/ebsa/employers-and-advisers/plan-administration-and-compliance/reporting-and-filing/form-5500.

[157] https://www.irs.gov/retirement-plans/retirement-plans-faqs-regarding-hardship-distributions#7.

[158] http://www.investopedia.com/terms/i/indexfund.asp.

[159] https://www.irs.gov/retirement-plans/plan-participant-employee/definitions.

[160] http://www1.tiaa-cref.org/public/products-services/mutual-funds/lifecycle/index.html.

[161] https://www.irs.gov/irm/part7/irm_07-011-007.html#d0e59.

[162] https://myra.gov/get-answers/.

[163] http://www.investopedia.com/terms/r/replacement-rate.asp?layout=infini&v=5A&adtest=5A&ato=3000n.

[164] https://www.irs.gov/retirement-plans/plan-participant-employee/definitions.

[165] https://www.irs.gov/retirement-plans/plan-participant-employee/definitions.

[166] https://www.opm.gov/retirement-services/my-annuity-and-benefits/thrift-savings-plan/.

NYC NEST EGG PLAN

NEW YORK CITY COMPTROLLER
SCOTT M. STRINGER

1 Centre Street, New York, NY 10007
(212) 669-3500 • comptroller.nyc.gov