



US Retirement Policy: Personalizing Retirement Security

iOme Research Question

Team Leader: Benjamin Ault
Team Member: Hans-Jacob Larsen Nesheim
University of Maryland, Baltimore County
Faculty Advisor: Douglas Lamdin

May 2023

Table of Contents

Executive Summary	1
Introduction	2
3 Pillars of Retirement Income	3
Social Security	3
Employer-Sponsored Retirement Plans	4
Private Retirement Savings	4
Retirement Income Trends	5
Retirement System Problems	6
Policy Proposals	7
Policy I: Social Security	7
Policy II: Annuity Safe Harbor	10
Policy III: Fintech Sandbox	11
Policy Beneficiaries	12
Political Feasibility	12
Monitoring Policy Success	13
Conclusion: Policy Benefits	15
References	15

Executive Summary

- **American households face high levels of risk and uncertainty concerning whether retirement income will be adequate, sustainable, and flexible.** According to both objective and subjective measures, many Americans are not prepared to achieve financial satisfaction in retirement.
- **The three pillars of the American Retirement System are Social Security, Employer-Sponsored Plans, and Private Savings.** Though Social Security is the primary pillar, future retirees anticipate relying on employer-sponsored and private retirement savings. Reliance on these pillars varies substantially by income level.
- **Three current problems of the American Retirement System are Social Security insolvency, longevity risk, and human decision-making errors.**
- **These current problems raise three challenges for policy reforms: (1) reduce dependence on Social Security, (2) build a “bridge” to fill the Social Security gap, and (3) promote retirement personalization and planning.** In meeting these challenges, policy reforms will improve adequacy, sustainability, and flexibility.
- **To meet these challenges, we propose three policy reforms: (1) Raise the Social Security Full Retirement Age (FRA) and implement lump-sum payments, (2) require third-party financial strength ratings of annuities, and (3) create a federal regulatory sandbox.** These policies will comprehensively work to benefit Americans of all ages in both accumulation and decumulation phases.
- **To feasibly implement these policies, Congress should consider various actions to relieve regulatory and social burdens.**
- **As a measure of success of these policy reforms, Congress should monitor both objective and subjective measures of retirement financial satisfaction.** These measures reflect how well the policies promote the adequacy, sustainability, and flexibility of retirement income.

Many Americans are not prepared to achieve financial satisfaction in retirement.

Introduction

According to the National Retirement Risk Index, approximately 51% of all American households will be unable to maintain their pre-retirement standard of living in retirement (Munnell et al., 2021). Even under the consideration that households will work to age 65 and annuitize all their financial assets as a source of retirement income, about half of all households have been at risk since the Great Depression. American households have expressed concern over this retirement risk. In the latest Survey of Consumers offered by the University of Michigan, respondents declared that the probability their retirement income would be adequate is only 39% (University of Michigan Surveys of Consumers, 2023). Evidently, many Americans expect that rather than wellbeing and security, they will experience financial difficulties as they age. Among the numerous programs that form the U.S. retirement system, changes are needed to reduce retirement risk and promote financial satisfaction among more American households.

Financial security looks very different for people of differing income brackets, needs, and desires. Retirees must consider their projected lifespan, health condition, and desired lifestyle for the later years of life. Retirement lifestyles will look different according to individuals' priorities and standard of living. In general, financial security can be defined according to *adequacy*, *sustainability*, and *flexibility* (World Economic Forum, 2019).

Adequacy refers to the level at which a retiree's income is sufficient to cover needs and expenses. The standard measure of adequacy is the replacement rate of pre-retirement income. Fidelity Investments (2022) estimates that people who make an average of more than \$120,000 need to replace only about 55%-65% of that income in retirement. Those who make \$50,000 or less, however, will need to replace 80% of their pre-retirement income. With the average American earning approximately \$58,000 (US Bureau of Labor Statistics, 2022), the average retiree will need to replace about 75% of pre-retirement income, or about \$43,500. Measures of adequacy are important to quantify whether retirement income will be sufficient.

Sustainability refers to whether a retiree's retirement income will last until death. In 2022, the average life expectancy for men was 73, and 79 for women (Shmerling, 2022). A noteworthy statistic reveals that, on average, men who reach the age of 62 can expect to live until 83 years, and women to 86. Retirement at age 62 would result in an average of 21 years of retirement for men and 24 for women (Social Security Administration). Using \$43,500 as an average adequacy estimate, retirees would require \$1,000,000 to sustain themselves through retirement. Any reform to the retirement system must promote the sustainability of retirement savings.

Flexibility refers to the retiree's ability to address financial needs as they arise. Spending will typically fall into categories of entertainment and leisure, routine expenses such as housing, insurance, and healthcare, and emergency expenditures, which are frequently health related. The Bureau of Labor Statistics (2022) reported in the 2021 Consumer Expenditure Survey that individuals 65 and older spend on average annually over \$3,500 for entertainment and travel expenses, \$7,000 for healthcare, and another \$44,000 on routine expenses such as housing, insurance, transportation, and more. Flexibility is important to not only pay for recurring

expenditures, but also to comfortably pay for unexpected events such as medical emergencies or housing and vehicle repairs. Thus, retirement reform ought to bolster retiree's flexibility and thereby improve financial security.

3 Pillars of Retirement Income

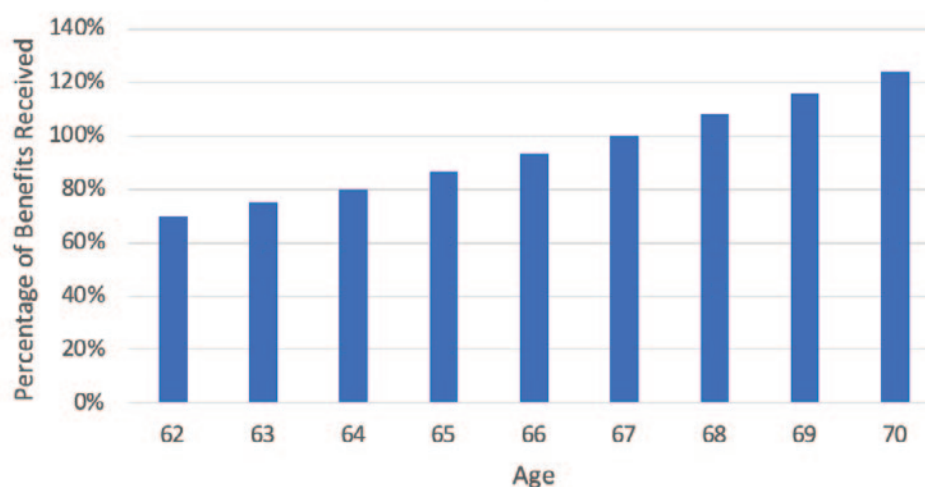
The current structure of the United States retirement system consists of three pillars, all of which an individual typically pays into and then receives income from during retirement. To provide a foundation for significant policy changes, we briefly explain the three pillars.

Social Security

The primary pillar is the Social Security retirement benefit. On August 14, 1935, President Franklin Roosevelt signed the Social Security Act into law, which made provisions to pay a continued income to retired workers 65 or older. The Social Security insurance system is a pay-as-you-go system in which current worker contributions fund current retiree benefits. The Social Security tax, which also pays for survivors' and disability benefits, is currently a 6.2% payroll tax on both the employer and employee, and the maximum taxable income is \$160,200.

The Social Security benefit is dependent on many factors, primarily the age of retirement, birth year, and lifetime contributions. Currently, the full retirement age (FRA) for people born after 1960 is 67, with 62 being the early retirement age. A retiree will receive a reduced monthly benefit at 62 and full monthly benefits at 67. Delay of payments until 70 will maximize the monthly payment. Figure 1 shows the percentage of Social Security benefits received at each retirement age.

Figure 1: Social Security Benefits by Age (born after 1960)



Source: Williams, 2022

In the past, Social Security has proven to be the most consistent pillar of the American retirement system. As recently as 2016, Social Security benefits provided for approximately 50% of income for people 65 and over. When discounting the number of people who are still working past 65, the percentage increases. For those in the lowest two quintiles of income, Social Security benefits made up for about 70% of their income (Federal Interagency Forum on Aging-Related Statistics, 2016).

Employer-Sponsored Retirement Plans

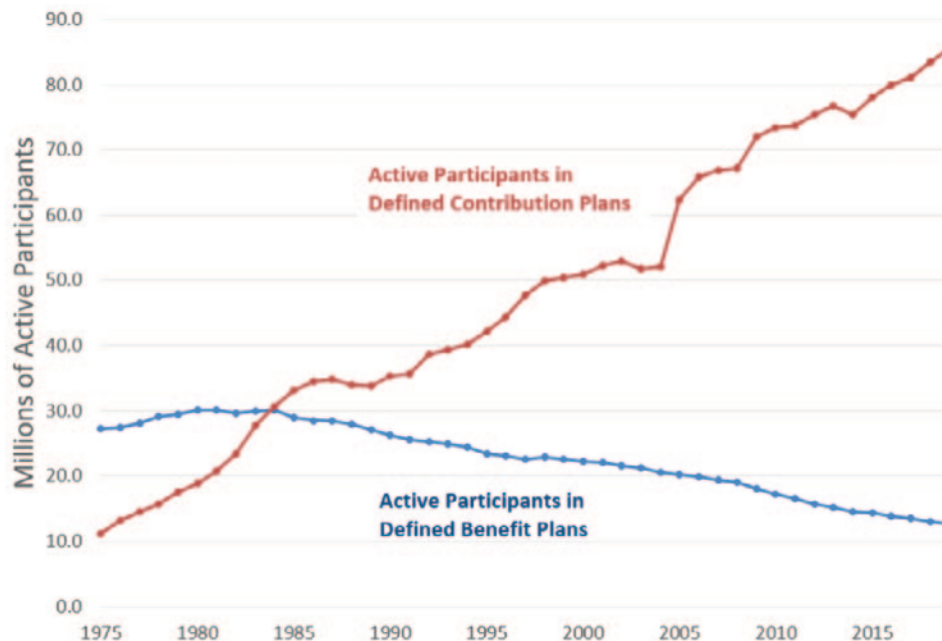
The second pillar of American retirement is employee-sponsored retirement accounts. These can take two forms: a defined benefit (DB) plan or a defined contribution (DC) plan. DB plans provide employees with guaranteed retirement benefits according to a formula that factors in earnings, retirement age, and number of years spent working under the plan (US Bureau of Labor Statistics, 2021). DC plans involve individual employee accounts into which the employer contributes. The most common plan is a 401(k). Though 401(k)s can vary in structure, most require that the employer either automatically contribute a percentage to the account or match the employee's contribution up to a certain percentage. These funds are invested and may be withdrawn once an individual retires. To disincentivize premature spending, withdrawals from a retirement account before age 59 ½ incur a 10% early withdrawal tax (Internal Revenue Service, 2022). The plan sponsor offers a variety of investment options, including mutual funds, company stocks, individual securities, and annuities. The individual chooses from these investment options based on preference of risk and growth (FINRA). Unlike DB plans, DC plans require individual responsibility to choose how to accumulate and decumulate savings from the accounts.

Over time, workers have shifted towards DC plans as fewer employers offer DB plans due to costliness and failures to meet obligations (Merton, 2014). Figure 2 shows from 1975 to 2019, DB plan participation decreased from 27.2 million to 12.6 million active participants, whereas DC participation increased from 11.2 million to 85.5 million (Myers and Topoleski, 2021). The recent Secure Act 2.0 legislation also encourages participation in 401(k)s by requiring automatic enrollment for eligible participants (Senate Committee on Finance). Because only 48% of eligible employees participate in employer-sponsored retirement plans currently (Bureau of Labor Statistics, 2023), this recent legislation aims to strengthen this retirement pillar through automatic enrollment.

Private Retirement Savings

The third pillar of American retirement consists of individuals' private savings. Retirees may rely on retirement-specific accounts such as individual retirement accounts (IRAs), but this third pillar can also include investments, earnings, and physical assets that can produce retirement income. The third pillar is based primarily on individual responsibility to properly manage these funds. Apart from personal assets such as property or stocks, IRAs are the most widely used form of private retirement. Traditional IRAs, which are taxed at withdrawal, are the oldest and most common, followed by Roth IRAs, which are taxed prior to contribution (Holden & Schrass, 2021).

Figure 2



Source: Myers and Topleski, 2021

The government has already taken steps to improve the private savings pillar with the newly legislated Secure Act 2.0. IRAs will now have a catch-up contribution of \$1,000 adjusted for inflation. (Senate Committee on Finance). However, out of 37.3% of American households who hold an IRA, only 12% of eligible households made catch-up contributions (Holden & Schrass, 2021). The National Institute for Retirement Security (Brown, 2018) estimates that millennials need to set aside 15%-22% of their personal income to have adequate savings for retirement. This is double of what was recommended for previous generations, making clear that personal savings must play a more vital part for future retirees.

Retirement Income Trends

Reliance on the three pillars varies substantially. According to Gallup's 2019 poll on retirement outlook, 57% of current retirees rely on Social Security as a major source of their income, and only 31% depend on an employee-sponsored retirement savings account as a major source. American confidence in Social Security has clearly waned, as 33% of the younger generation of non-retirees expects to rely on Social Security as a major source of income in retirement, and 47% on retirement savings accounts (Brenan, 2021). To affirm this shift, Fidelity Investments (2019) reported that the average 401(k) balance increased 466%, from \$52,600 to \$297,700, over a ten-year span between 2009 and 2019. These trends are important, as they demonstrate how future retirees expect to achieve financial security, and thus how they make decisions with their current income.

Additionally, individuals tend to receive retirement income from different sources based on their overall income level. Social Security makes up a much larger portion of retirement income for lower-income individuals, whereas earnings and retirement accounts contribute to a large portion for those with higher incomes. Figure 3 breaks down retirement income sources for the lowest and highest earners as well as the average percentage for all earners.

Figure 3



Source: Thompson & King, 2022

Retirement System Problems

The current American Retirement system contains three problems which our policy proposals will address. These three are: Social Security insolvency, longevity risk, and human decision-making errors.

Social Security faces imminent insolvency. Current projections predict that Social Security will not be able to pay out full retirement benefits by 2034, resulting in significant income cuts for many who depend on these benefits. When the program becomes insolvent in 2034, it is projected to

be able to pay out only 80% of current benefits (Congressional Research Service, 2022). As the life span of recipients increases, the ratio of workers to beneficiaries has decreased from 5 to 3 over the past 60 years, thereby decreasing available funds per retiree (Peter G. Peterson Foundation, 2022).

Retirees face the risk of outliving retirement savings, called longevity risk, because retirement income may not be adequate and flexible over the life of a retiree. The World Economic Forum reports that American men will outlast their savings by seven years and women by 10 years (2019). With the additional insolvency of Social Security, retirees are at risk of lacking steady flows of income which will sustain them through retirement.

Retirees face the risk of outliving retirement savings, called longevity risk, because retirement income may not be adequate and flexible over the life of a retiree.

Finally, human decision-making errors can result in suboptimal accumulation and decumulation of retirement savings. The 2021 National Financial Capability Study reported that 40% of current non-retirees and only 50% of people ages 55-64 have tried to figure out how much they need to save for retirement (FINRA, 2022). Moreover, Martel et al. (2021) reports that for those with a retirement plan, a majority of individuals have a very simplistic, limited, and likely unrealistic strategy for decumulating savings. Without guidance, human behavioral tendencies such as loss aversion and planning failures may threaten the adequacy, sustainability, and flexibility of their retirement income in either accumulation or decumulation phases.

Policy Proposals

Congress must address the following challenges raised by the three flaws. First, reduce dependency on Social Security. After doing so, create a bridge to fill the retirement income gap left by Social Security through other means of retirement saving. Finally, promote cost-effective personalization and planning to mitigate longevity risk and human decision-making errors. Ultimately, to be considered effective, the policies must promote the adequacy, sustainability, and flexibility of retirement income.

Policy I: Social Security

The first step to reforming Social Security is to increase the full retirement age (FRA) to 70. Although Congress initiated a gradual increase in the FRA from 65 to 67 in 1983 (Social Security Administration), it is time to rapidly adjust the age, considering both future insolvency and the increase in average life expectancy. Given that Social Security is expected to reach insolvency in 2034, this new FRA will be applied to individuals born in 1972, who will reach their early retirement age in that year. The recent Secure Act 2.0 makes this shift more possible due to increases in catch-up contributions for those age 50 and older (Senate Finance Committee). Those who were born in 1972 have time to prepare for an adjustment in retirement age given these additional catch-up contributions.

By increasing the FRA, Congress would also effectively cut Social Security benefit payouts by approximately 20% (Romig, 2023). Because the program is projected to pay out only 80% of benefits by 2034, this policy would effectively mitigate insolvency by indirectly cutting benefits by 20%. Instead of raising the payroll tax or slashing benefits, raising the FRA addresses insolvency while promoting private saving and work (Springstead, 2011). Feldstein (1980) wrote that each dollar of social security wealth reduces private wealth accumulation by 50 cents to a dollar. Moreover, van der Klaauw and Wolpin (2011) found that increasing the FRA to 70 is the best policy to increase work hours and total income. This policy should therefore safely reduce dependence on Social Security while bolstering other forms of saving.

The next reform to Social Security will be to transition benefits that occur after the FRA from incremental benefits to a lump sum payment. Considering that full Social Security benefits would be given at 70, those who retire at 71, 72, or 73 would receive a large one-time payment at retirement, then receive the normal full benefits every year thereafter. Assuming a life expectancy of 83, Table 1 shows how the new benefits would be calculated.

Table 1

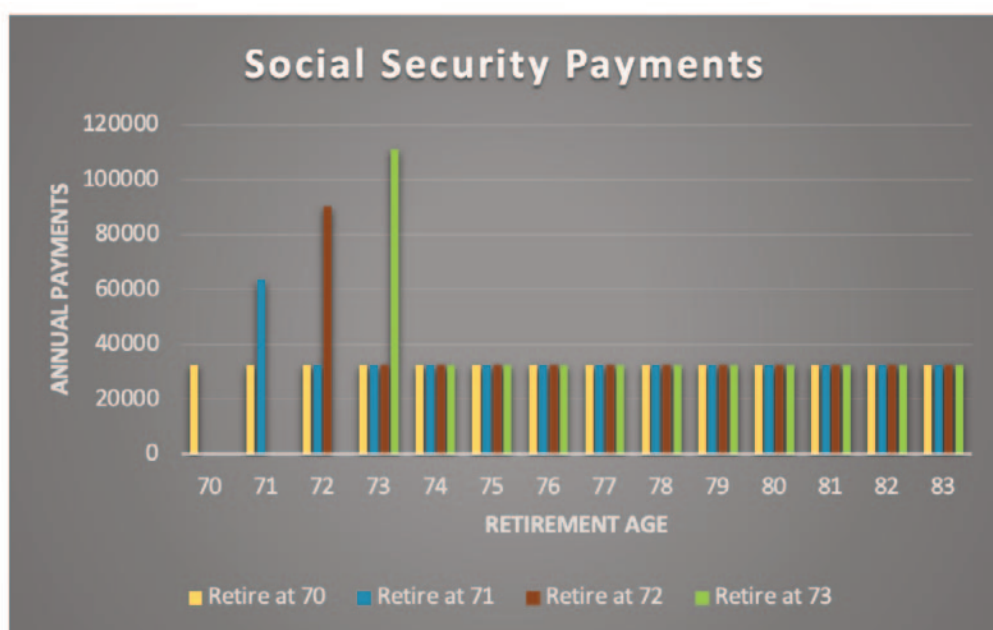
Standard Monthly Payment			Lump Sum Payment		
Age	% Benefit	Monthly Payment	Monthly Payment	+	Lump Sum
62	55%	\$1,500	\$1500	+	\$0
63	60%	\$1,636	\$1,636	+	\$0
64	65%	\$1,773	\$1,773	+	\$0
65	70%	\$1,909	\$1,909	+	\$0
66	75%	\$2,045	\$2,045	+	\$0
67	80%	\$2,182	\$2,182	+	\$0
68	87%	\$2,373	\$2,373	+	\$0
69	93%	\$2,536	\$2,536	+	\$0
70	100%	\$2,727	\$2,727	+	\$0
71	108%	\$2,945	\$2,727	+	\$31,197
72	116%	\$3,164	\$2,727	+	\$57,594
73	124%	\$3,382	\$2,727	+	\$78,538

Author's Calculations

Given that 70 is the FRA, Table I shows what the standard monthly payment would be for each retirement age based on benefit percentage. For simplicity, the minimum benefit is \$1,500. The lump sum table maintains the full retirement monthly benefit past age 70 but adds a one-time payment equal to the present value of the difference in total standard monthly payments between that age and the FRA.

Figure 4 models annual payments at different retirement ages for the lump-sum proposal.

Figure 4



Author's Calculations

This lump sum proposal has multiple advantages. Mitchell and Maurer (2018) found that lump-sum payments do not materially affect the solvency of Social Security. However, low and middle-income earners do receive more in retirement from the lump-sum schedule. Moreover, Maurer et al. (2017) empirically demonstrated that lump-sum payments offered the later one retires incentivizes delaying benefits by working longer. In turn, this could increase an individual's total benefits received from Social Security by up to 75%.

The potential downside of raising the FRA and incentivizing delayed retirement is that many Americans want or need to retire at an earlier age. The following policies and feasibility considerations are designed to equip these individuals with sufficient retirement savings and planning to achieve financial satisfaction.

Policy II: Annuity Safe Harbor

To build on the increase in future 401(k) participation provided by the Secure Act 2.0, this policy proposal promotes a Social Security “bridge” option with an emphasis on annuities. For retirees, this would serve to replace the delayed Social Security income until full retirement or later. This bridge option is designed to incentivize allocating a portion of 401(k) assets into annuities, which could potentially pay retirees an amount equivalent to the Social Security benefits they delay. Retirees with annuities will receive guaranteed flows of income for life while also delaying and increasing their Social Security benefits, thereby hedging their longevity risk.

Though annuities seem to be relatively reliable investments, American households still make little use of these savings options.

Though annuities seem to be relatively reliable investments, American households still make little use of these savings options. This is referred to as the “annuity puzzle.” Davidoff et al. (2005) shows that annuitization of wealth results in welfare gains for individuals. Benartzi et al. (2011) explains the various benefits of annuities, which provide a steady stream of income for a set amount of time. They also serve as a helpful decumulation tool by removing retirees’ uncertainty concerning how fast to draw down wealth and when to start retirement. Future retirees are also found to place high value in a guaranteed lifetime income (National Employment

Savings Trust, 2015). Therefore, the market for annuities should be an attractive option for retirement planning.

One cause of low participation in annuities is that plan sponsors fear accruing a liability should annuity providers become insolvent. A Safe Harbor, originally created by the Employee Retirement Security Act (ERISA), includes rules and regulations intended to protect plan sponsors from selecting risky annuity providers. This gives retirement plan sponsors protection from legal liabilities if they adhere to certain requirements and criteria. However, previous annuity Safe Harbor regulations have been vague, making plan sponsors unwilling to expose themselves and retirees to annuities in their 401(k) plans (Stern, 2016).

The Secure Act did address the annuity Safe Harbor to increase transparency and simplify qualifications. Christian (2023) summarizes requirements annuity providers must adhere to, which, among others, are: (1) licensing by the state insurance commission for a minimum of seven years, (2) filing audited financial statements and complying with state laws, and (3) maintaining healthy financial reserves.

Though these policies promote transparency of annuity providers, we suggest simplifying the Safe Harbor policies to ensure high quality of annuity providers and guarantee plan sponsor and plan participant confidence. Safe Harbor guidelines should be modified to require public ratings for annuity providers based on financial strength and stability, which is not currently mandated (Gale et al., 2021). By disclosing the probability of insolvency, this standard would increase plan sponsors’ confidence and willingness to invest in annuities. Moreover, employees would have greater access to annuity options through employer-sponsored retirement plans, thereby creating access to guaranteed retirement income.

These annuity ratings are to be conducted by a reliable third-party under government regulation and should come from Nationally Recognized Statistical Ratings Organizations (NRSROs), which are credit-rating agencies registered under and examined by the Securities and Exchange Commission. Such clear and concise safe harbor policies and regulation mitigates asymmetric information problems and makes annuity provider selection less costly, faster, and more objective for plan sponsors (Gale et al., 2021). By requiring third-party ratings, this alleviates the responsibility of plan sponsors and places it on credit-rating agencies, which specialize in analyzing the financial strength of insurance providers.

Policy III: Fintech Sandbox

As policies promote employer-sponsored and private savings, individuals need to be properly equipped to handle the personal responsibility associated with retirement saving. Although human decision-making error can derail accumulation and decumulation of retirement savings, financial technology and innovation can provide simplified access to savings plans and low-cost advising.

Financial technology (fintech) refers to a broad range of computer programs and technologies which can analyze large quantities of data and provide financial advice to individuals. Certain types of fintech provide human-to-machine interfaces such as chatbots and robo-advisors, which can analyze data provided by customers and provide personalized communications. Within the context of retirement planning, fintech can encourage individuals to save for retirement, recommend placement of savings, and provide detailed plans for retirees looking to withdraw from retirement accounts

(FINRA, 2016). Given the technological advancements of rising generations — well over 50% of individuals age 45 or younger already use financial apps and websites for personal finance (FINRA, 2022) — fintech serves as a promising cost-effective, personalized, and technologically relevant solution for retirement planning. In doing so, fintech provides an objective framework that overcomes human behavioral biases and can mitigate low levels of financial literacy.

Financial technology and innovation can provide simplified access to savings plans and low-cost advising.

In order to promote the fintech market, the United States must look to create a regulatory sandbox for financial innovations. A sandbox is a regulatory approach that allows companies to test innovations in the market without high costs and barriers to entry under the supervision of regulators (United Nations Advocate for Inclusive Finance). Regulators keep close watch on the evolving industry risks by monitoring sandbox participants. Following in the footsteps of the United Kingdom in 2015 by creating a sandbox on the federal level, the United States government would promote fintech innovations that are designed to reach various customer bases. Already ten states in the US offer regulatory sandboxes (Gleason, 2021). Goo and Heo (2022) conducted an empirical study of nine federal sandboxes throughout the world, demonstrating that these regulatory systems fostered the growth of fintech venture investments. The study implies that sandboxes allow for flexible business models and innovation within fintech. Moreover, already 90% of UK firms that completed testing in the first sandbox cohort have

moved towards a market launch (Financial Conduct Authority, 2017). A fintech sandbox will promote successful innovations and personal retirement saving and strategy.

The aim of improved retirement fintech is to increase savings accessibility and create low-cost, innovative advising. Carlin et al. (2019) empirically demonstrate that fintech mobile apps lower

Financial technology
and innovation can
provide simplified
access to savings plans
and low-cost
advising.

costs, make personal information more accessible, and highlight pertinent financial information. As a result, humans become more financially literate and are better equipped to make decisions regarding accumulation and decumulation.

Moreover, fintech companies improve accessibility to savings accounts. The fintech company Penelope makes 401(k) plans more accessible for small businesses, which often offer no such plan (Stengel, 2022). Other fintechs such as PensionBee provide interactive interfaces which allow for individuals to keep track of their retirement accounts. These digital applications allow individuals to

visually gather data that informs decision making concerning catch-up contributions and withdrawals (PensionBee). The regulatory sandbox allows retirement saving fintech companies to experiment with ideas and products that promote effective competition in the interests of consumers. Fintech innovations could also simplify access to and use of reverse mortgages (Choi et al., 2019) and longevity insurance annuities (Agnew et al., 2019). By encouraging more companies to test retirement-focused financial technology in a sandbox, the American Retirement System would likely witness a revolution of retirement saving innovation that could strengthen the future of all Americans.

Policy Beneficiaries

These three policies are designed to benefit individuals at every stage of accumulation and decumulation. Raising the FRA and providing lump-sum payments benefits individuals once they reach age 70 until their death. This policy increases income the most for low and middle-income individuals age 70 and above. The annuity Safe Harbor policy helps people older than 59 ½ who can withdraw funds without withdrawal penalties. These individuals can rely on annuity payments as a bridge through their sixties and continue to rely on these guaranteed payments until death. Lastly, the fintech sandbox benefits everyone from 20-year-olds beginning to save for retirement to retirees seeking to safely decumulate assets. By specifically targeting individuals at certain retirement phases, this policy proposal bolsters retirement security at all ages.

Political Feasibility

Congress should consider how to feasibly implement these policies to alleviate potential regulatory and social burdens. We suggest forming a policy commission to address Social Security, bolstering American Job Centers for older-age workers, utilizing existing composite index (COMDEX) ratings for annuity providers, and creating a guided sandbox that places less burden on the federal government.

In 1981, President Reagan formed the National Commission on Social Security Reform, otherwise known as the Greenspan Commission, to provide recommendations to avoid insolvency by 1983. By providing specific calculations and recommendations, the commission's report became the basis for significant changes in Social Security law (National Commission on Social Security Reform, 1983). Assuming that no politician wants to risk unpopularity by changing and reducing Social Security benefits, a modern-day bi-partisan and non-political commission similar to the Greenspan Commission is necessary as a catalyst for Social Security reform.

A modern-day
bi-partisan and non-
political commission
similar to the
Greenspan Commission
is necessary as a catalyst
for Social Security
reform.

Given that these Social Security policies require many individuals to work longer, Congress should consider mandating that the existing 2,400 American Job Centers employ advisors who are equipped to address the needs of older employees. Although many companies are hesitant to hire older workers (Ameriks, 2020), American Job Centers could provide training, job listings, and advising for older individuals seeking part-time or self-employment work (Abraham & Houseman, 2020).

To further simplify regulation of NRSROs ratings for annuities, Congress should consider using the COMDEX to determine the quality of annuity providers. The COMDEX consolidates the ratings of the top four NRSROs into a numerical scale of 1 to 100. Because NRSROs use different ratings, this would simplify the ratings for plan sponsors (Gale et al., 2021). Regulators could then grade annuity providers using the COMDEX and mandate that high quality providers receive above an 80 on the index.

Moreover, creating a federal sandbox creates numerous challenges for federal regulators. In the case of the European Union (EU), Ringe and Ruoff (2020) suggest a "guided sandbox," which is operated by Member States but monitored and guarded by EU institutions. If U.S. regulators promote fintech sandboxes on the state level and provide support and monitoring on the federal level, this would reduce some of the regulatory barriers which currently prevent a federal sandbox.

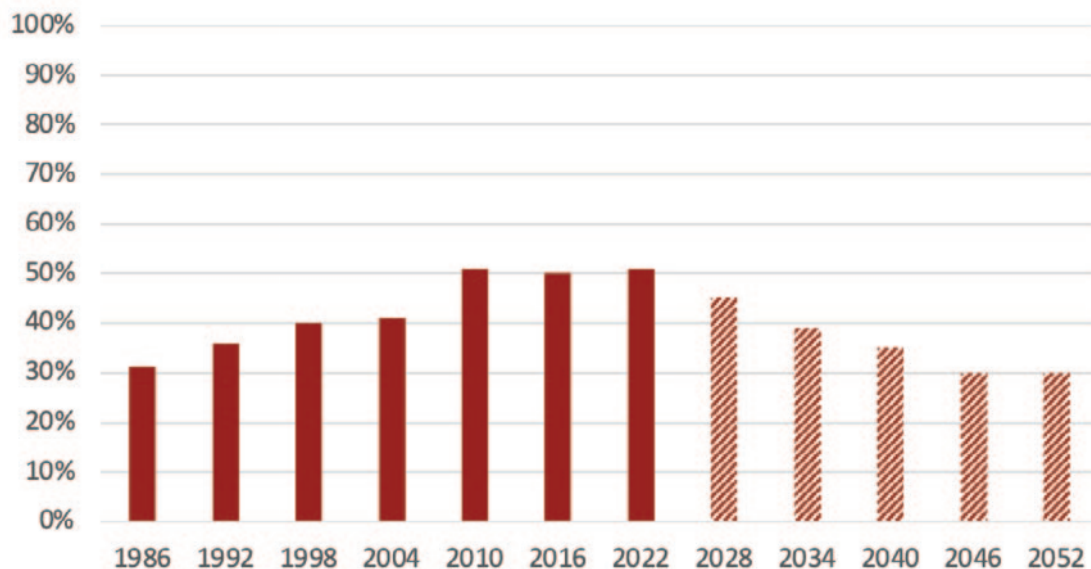
Monitoring Policy Success

To monitor whether these policy reforms have worked, the National Retirement Risk Index (NRRI) and the University of Michigan Surveys of Consumers provide objective and subjective benchmarks of retirement satisfaction.

The NRRI projects how many households will not be able to meet a sufficient replacement rate of income in retirement. Thus, a *decrease* in the NRRI is a sign of improvement. By monitoring the NRRI each year, policymakers can observe the adequacy of retirement income. Over several years, the NRRI will show whether the implemented policies have improved sustainability. This index can also measure flexibility of retirement income if it consistently decreases year to year despite

unpredictable conditions. In 1983, the NRRI measured 31% risk (Munnell, 2006) Since 2004, it has risen from 41% to 51% (Munnell, 2021). To set a progress goal for these policies, policymakers should look to decrease the NRRI back below 40% over the next 10 years as an effect of these three policies, with a long-term goal of stabilizing the NRRI below 30%. Figure 5 illustrates historical figures of the NRRI in solid and projected goals in stripes.

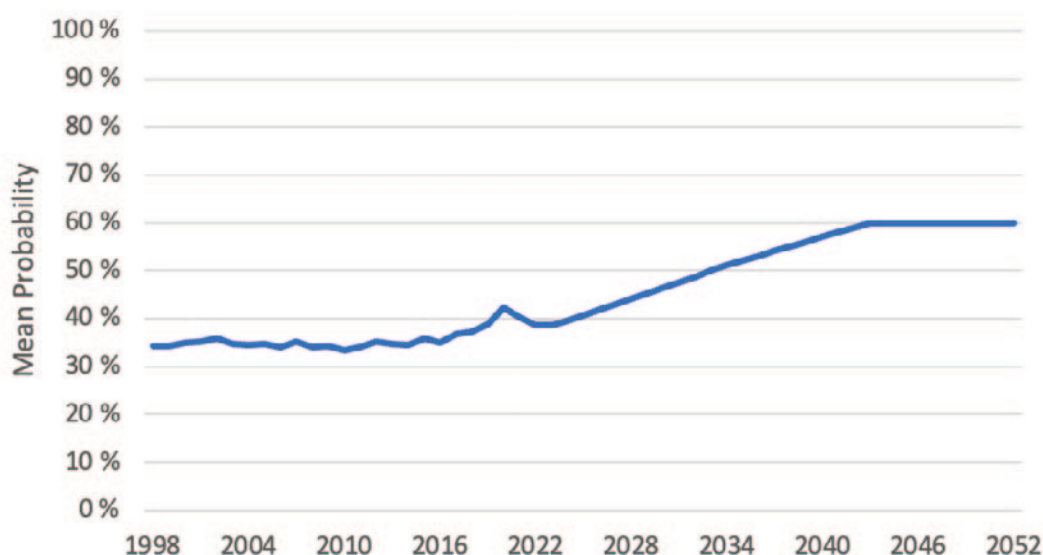
Figure 5: National Retirement Risk Index



Author's Projections; Source: Munnell, 2021

Moreover, the goal of these policies is also to increase individuals' confidence in retirement saving. The University of Michigan's 2023 Surveys of Consumers reported that consumers' confidence that their retirement income would be adequate steadily climbed to an all-time high of 43% in 2020 before falling to 36%. To indicate policy reform success, this measure should rise to 50% within the next ten years and 60% long-term. Figure 6 presents historical confidence levels through 2022 and projected levels through 2052.

Figure 6: Consumer Retirement Confidence



Author's Projections; Source: University of Michigan, 2023

Conclusion: Policy Benefits

The goal of these three policies is to improve the adequacy, sustainability, and flexibility of retirement income. The means to accomplish this goal is to safely reduce dependence on Social Security and enable future retirees to confidently take personal responsibility for saving. Though targeting various elements of the American Retirement System, all three policies work together to achieve this goal and solve the current flaws of the American Retirement System.

First, this policy proposal improves the *adequacy* of retirement income. Incentivizing retirees to delay Social Security by offering lump sum payments at retirement allows them to maximize their total benefits over their lifetime. Lump sum payments also encourage working longer, which results in more wages, and more money to spend in retirement. A boom in fintech innovation due to a regulatory sandbox will also provide individuals with more accessibility to saving plans and better advisement for savings accumulation. This will result in larger retirement nest eggs for retirees to spend from.

Second, all three policies promote the *sustainability* of retirement income. Because total Social Security benefits will fall by about 20% due to an increase in the FRA, the program will be sustainable at an 80% level for the next 75 years (Congressional Research Service, 2022). Annuities provide a guaranteed payment every year until death, so retirees with greater annuity access can be confident that their savings will last. Fintech innovations also lead to improved management of assets through the decumulation process so that retirees will not spend down their savings too fast.

Finally, the lump sum payment proposal and regulatory sandbox promote the *flexibility* of retirement income. When retirees receive a lump sum payment, they possess a significant amount of discretionary money, which can be used for multiple purposes. In addition, fintech advising helps retirees analyze options when emergencies arise. Because these policies thoroughly promote adequacy, sustainability, and flexibility, retirees can be financially secure throughout retirement.

References

- Abraham, K. G., & Houseman, S. N. (2020, November). *Policies to improve workforce services for older Americans*. Retrieved April 19, 2023, from <https://www.brookings.edu/wp-content/uploads/2020/11/ES-11.19.20-Abraham-Houseman.pdf>
- Agnew, J., & Mitchell, O. S. (2019). How Fintech is Reshaping the Retirement Planning Process. In *The Disruptive Impact of Fintech on Retirement Systems* (pp. 1–12). essay, Oxford University Press.
- Ameriks, J., Briggs, J., Caplin, A., Lee, M., Shapiro, M. D., & Tonetti, C. (2020). Older Americans Would Work Longer if Jobs Were Flexible. *American Economic Journal: Macroeconomics*, 12(1), 174–209. <https://doi.org/10.1257/mac.20170403>
- Benartzi, S., Previtero, A., & Thaler, R. H. (2011). Annuitization Puzzles. *Journal of Economic Perspectives*, 25(4), 143–164. <https://doi.org/10.1257/jep.25.4.143>
- Brenan, M. (2021, November 20). *More Nonretired Americans Expect Comfortable Retirement*. Retrieved February 5, 2023, from <https://news.gallup.com/poll/258320/nonretired-americans-expect-comfortable-retirement.aspx>
- Brown, J. E. (2018, February). Millennials and Retirement: Already Falling Short. <https://www.nirsonline.org/wp-content/uploads/2018/02/Millennials-Report-1.pdf>
- Bureau of Labor Statistics Data Finder 1.1. (2022). Consumer Expenditure Survey. Washington D.C.
- Carlin, B., Olafsson, A., & Pagel, M. (2019, January). *FinTech and Consumer Financial Well-Being in the Information Age*. Retrieved May 5, 2023, from <https://www.fdic.gov/bank/analytical/fintech/papers/carlin-paper.pdf>
- Choi, J., Kaul, K., & Goodman, L. (2019, July). *FinTech innovation in the home purchase and financing market*. Urban Institute. https://www.urban.org/sites/default/files/publication/100533/fintech_innovation_in_the_home_purchase_and_financing_market_0.pdf
- Christian, R. (2023, April 29). *The Secure Act*. Annuity.org. <https://www.annuity.org/retirement/secure-act/>
- Congressional Research Service. (2022, September 28). *Social Security: What Would Happen If the Trust Funds Ran Out?* Retrieved April 19, 2023, from <https://crsreports.congress.gov/product/pdf/RL/RL33514>
- Davidoff, T., Brown, J., & Diamond, P. (2005). Annuities and individual welfare. *The American Economic Review*, 95(5), 1573–1590. <https://doi.org/10.3386/w9714>
- Federal Interagency Forum on Aging-Related Statistics. 2016: *Older Americans: Key Indicators of Well-Being*. Retrieved March 6, 2023, from <https://agingstats.gov/docs/PastReports/2016/OA2016.pdf>

- Feldstein, M. (1980). The Effect of Social Security on Saving. *The Geneva Papers on Risk and Insurance*, 5(15), 4–17. <http://www.jstor.org/stable/41949969>
- Fidelity Investments. (2019). *Q1 2019 Retirement Trends*. Retrieved April 18, 2023, from https://s2.q4cdn.com/997146844/files/doc_news/archive/36b897b5-30a5-48cb-9be9-9ecb0e39ff54.pdf
- Fidelity Investments. *How much will you spend in retirement?* (October 31, 2022). <https://www.fidelity.com/viewpoints/retirement/spending-in-retirement>.
- Financial Conduct Authority. (2017). (rep.). *Regulatory sandbox lessons learned report*. Retrieved 2023, from <https://www.fca.org.uk/publication/research-and-data/regulatory-sandbox-lessons-learned-report.pdf>.
- FINRA. (2016, March). Report on Digital Investment Advice - [finra.org](https://www.finra.org/sites/default/files/digital-investment-advice-report.pdf). <https://www.finra.org/sites/default/files/digital-investment-advice-report.pdf>
- FINRA. (2022). (publication). *Financial Capability in the United States*. Retrieved 2023, from <https://finrafoundation.org/sites/finrafoundation/files/NFCS-Report-Fifth-Edition-July-2022.pdf>.
- FINRA. (2022, June 27). National Financial Capability Survey State Data 220627. Washington D.C.
- FINRA. *Investing in your 401(k)*. FINRA.org. Retrieved March 15, 2023, from <https://www.finra.org/investors/learn-to-invest/types-investments/retirement/401k-investing/investing-your-401k>
- Gale, W. G., Iwry, J. M., & John, D. C. (2021). *Wealth After Work: Innovative Reforms to Expand Retirement Security*. Brookings Institution Press.
- Gleason, P. (2022, April 21). *Regulatory sandboxes give states an edge attracting innovation and Investment*. Forbes. Retrieved April 26, 2023, from <https://www.forbes.com/sites/patrickgleason/2021/12/31/regulatory-sandboxes-give-states-an-edge-attracting-innovation-and-investment/?sh=889a8fa7003f>
- Goo, J. J., & Heo, J.-Y. (2020). The Impact of the Regulatory Sandbox on the Fintech Industry, with a Discussion on the Relation Between Regulatory Sandboxes and Open Innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(2), 43. <https://doi.org/10.3390/joitmc6020043>
- Holden, S., & Schrass, D. (2021). The role of IRAs in US households' saving for retirement, 2020. *ICI Research Perspective*, 27(1). <https://doi.org/10.2139/ssrn.3789270>
- Internal Revenue Service. (2022, September 19). *Retirement topics tax on early distributions*. Retrieved April 17, 2023, from <https://www.irs.gov/retirement-plans/plan-participant-employee/retirement-topics-tax-on-early-distributions>
- Martel, R., Gongola, J., Klein, S., & Sharon, A. (2021). Managing Misbehavior: Rational Choice in an Uncertain Environment. *Retirement Management Journal*, 10(1), 66–79. Retrieved 2023, from file:///C:/Users/bdaul/Downloads/RMJ101-ManagingMisbehavior.pdf.

- Maurer, R., Mitchell, O. S., Rogalla, R., & Schimetschek, T. (2017, January). *Optimal Social Security Claiming Behavior Under Lump Sum Incentives: Theory and Evidence*. Retrieved May 1, 2023, from https://www.nber.org/system/files/working_papers/w23073/revisions/w23073.rev0.pdf
- Merton, R. C. (2014). The crisis in retirement planning. *Harvard Business Review*, 1401–1407.
- Mitchell, O. S., & Maurer, R. (2018). Evaluating lump sum incentives for delayed social security claiming. *Public Policy & Aging Report*, 28(suppl_1), S15–S21. <https://doi.org/10.1093/ppar/pry016>
- Munnell, A., Webb, A., & Delorme, L. (2006, June). *A New National Retirement Index*. Center for Retirement Research at Boston College. Retrieved April 27, 2023, from https://crr.bc.edu/wp-content/uploads/2019/12/IB_48.pdf.
- Munnell, A., Chen, A., & Siliciano, R. L. (2021, January). *The National Retirement Risk Index: An update from the 2019 SCF*. Center for Retirement Research at Boston College. Retrieved February 6, 2023, from https://crr.bc.edu/wp-content/uploads/2021/01/IB_21-2.pdf
- Myers, E. A., & Topoleski, J. J. (2021, December 27). A Visual Depiction of the Shift from Defined Benefit (DB) to Defined Contribution (DC) Pension Plans in the Private Sector. <https://crsreports.congress.gov/product/pdf/IF/IF12007>
- National Commission on Social Security Reform, Report of the National Commission on Social Security Reform (1983). Washington, D.C. Retrieved April 26, 2023, from <https://www.ssa.gov/history/reports/gspan.html>.
- National Employment Savings Trust. *The Future of Retirement: A Retirement Income Blueprint for NEST's Members* (2015). London: NEST Corporation.
- Our Vision*. PensionBee. (n.d.). Retrieved April 10, 2023, from <https://www.pensionbee.com/our-vision>
- Ringe, W.-G., & Ruof, C. (2020). Regulating fintech in the EU: The case for a guided sandbox. *European Journal of Risk Regulation*, 11(3), 604–629. <https://doi.org/10.1017/err.2020.8>
- Romig, K. (2023, April 25). *Raising Social Security's Retirement Age Would Cut Benefits for All New Retirees*. Center on Budget and Policy Priorities. Retrieved May 4, 2023, from <https://www.cbpp.org/sites/default/files/4-25-23socsec.pdf>
- Shmerling, R. H. (2022, October 20). *Why life expectancy in the US is falling*. Harvard Health. Retrieved February 10, 2023, from <https://www.health.harvard.edu/blog/why-life-expectancy-in-the-us-is-falling-202210202835#:~:text=For%20women%20and%20men%2C%20life,long%2Dapparent%2C%20significant%20gap.>
- Social Security Administration. (n.d.). *Life Expectancy for Social Security*. Retrieved March 15, 2023, from <https://www.ssa.gov/history/lifeexpect.html>

Social Security Administration. (n.d.). *Retirement Age Calculator*. Retrieved March 14, 2023, from <https://www.ssa.gov/benefits/retirement/planner/ageincrease.html#:~:text=Full%20retirement%20age%2C%20also%20called,born%20in%201938%20or%20later>.

Springstead, G. R. (2011, January 1). *Distributional Effects of Accelerating and Extending the Increase in the Full Retirement Age*. Social Security Administration. Retrieved May 2, 2023, from <https://www.ssa.gov/policy/docs/policybriefs/pb2011-01.html>

Stengel, G. (2022, March 18). *A fintech makes it easy for small businesses to offer 401(k) retirement benefits*. Forbes. Retrieved April 18, 2023, from <https://www.forbes.com/sites/geristengel/2022/03/16/a-fintech-makes-it-easy-for-small-businesses-to-offer-401k-retirement-benefits/?sh=4d165e41217e>

Sterner, B. (2016). Achieving retirement income security: A comparison of guaranteed lifetime withdrawal benefit, systematic withdrawal and partial variable annuity strategies. *Tax Development Journal*, 6, 10–49. <https://doi.org/10.2139/ssrn.3317778>

Thompson, D., & King, M. D. (2022, February). *Income Sources of Older Households: 2017*. Retrieved April 18, 2023, from <https://www.census.gov/content/dam/Census/library/publications/2022/demo/p70br-177.pdf>

The ratio of workers to Social Security beneficiaries is at a low and projected to decline further. Peter G. Peterson Foundation. (2022, August 4). Retrieved May 4, 2023, from <https://www.pgpf.org/blog/2022/08/the-ratio-of-workers-to-social-security-beneficiaries-is-at-a-low-and-projected-to-decline-further>

U.S. Bureau of Labor Statistics. (2021, November 1). *68 percent of private industry workers had access to retirement plans in 2021*. Retrieved April 19, 2023, from <https://www.bls.gov/opub/ted/2021/68-percent-of-private-industry-workers-had-access-to-retirement-plans-in-2021.htm>

U.S. Bureau of Labor Statistics. (2022, March 31). *May 2021 National Occupational Employment and Wage Estimates*. U.S. Bureau of Labor Statistics. Retrieved February 10, 2023, from https://www.bls.gov/oes/current/oes_nat.htm#00-0000

U.S. Bureau of Labor Statistics. (2023, February 1). *Retirement plans for workers in private industry and state and local government in 2022*. The Economics Daily. Retrieved March 6, 2023, from <https://www.bls.gov/opub/ted/2023/retirement-plans-for-workers-in-private-industry-and-state-and-local-government-in-2022.htm>

U.S. Bureau of Labor Statistics Data Finder 1.1. (2022). Consumer Expenditure Survey. Washington D.C.

United Nations Secretary-General's Special Advocate for Inclusive Finance for Development. (n.d.). *Briefing on Regulatory Sandboxes*. Retrieved April 1, 2023, from https://www.unsgsa.org/sites/default/files/resources-files/2020-09/Fintech_Briefing_Paper_Regulatory_Sandboxes.pdf

United States Senate Committee on Finance. (n.d.). *Secure 2.0 Act of 2022 Section by Section Summary*. Retrieved April 9, 2023, from https://www.finance.senate.gov/imo/media/doc/Secure%202.0_Section%20by%20Section%20Summary%2012-19-22%20FINAL.pdf

University of Michigan Surveys of Consumers. (2023, February). Probability Retirement Income will be Adequate. Ann Arbor, Michigan.

van der Klaauw, W., & Wolpin, K. I. (2008). Social Security and the Retirement and Savings Behavior of Low Income Households. *Journal of econometrics*, 145(1-2), 21–42. <https://doi.org/10.1016/j.jeconom.2008.05.004>

Williams, R. (2022, June 16). *A guide on taking Social Security*. Schwab Brokerage. Retrieved March 15, 2023, from <https://www.schwab.com/learn/story/guide-on-taking-social-security>

World Economic Forum. (2019). *Investing in (and for) Our Future*. [weforum.org](https://www.weforum.org). Retrieved March 1, 2023, from https://www3.weforum.org/docs/WEF_Investing_in_our_Future_report_2019.pdf?source=content_type%3Areact%7Cfirst_level_url%3Aarticle%7Csection%3Amain_content%7Cbutton%3Abody_link



The iOme Challenge is a project of the Women's Institute for a Secure Retirement (WISER®).

www.iomechallenge.org

www.wiserwomen.org