Shashwat Vidhu Sher

MLA 364

Professor Stedman

15 March 2021

The Shift that Redefined Retirement Security

Retirement plans have been a standard feature of public and private sector employers in the United States since the early 1900s. Although Defined Benefit plans were the mainstay of most pensions plans for much of the twentieth century, there was a massive shift in the 1980s, mainly in the private sector, towards Defined Contribution plans like 401(k). I argue that government policies for the private sector, new employer-employee relationship, job-switching, and familiarity with the financial market created an environment where an increasing number of new-age employees are dependent on themselves rather than the employer to fund their retirement. Overdependency on Defined Contribution plans has led to inadequate savings for many American workers, jeopardizing their retirement.

The history of retirement security in the U.S. is closely tied to the ideas around economic security arising out of the Great Depression and later directed by socio-political sensibilities. By 1920, many states and federal government implemented a public pension plan for their employees (Nat. Conf. 3, Nuschler et al. 3). Though some private enterprises also offered pensions, many American workers still lived with no assurance of a secure future—a situation exacerbated by the Great Depression in the 1930s. In response, economists promoted the idea of social insurance, which itself traces back to the 1880s, and requires contribution from the beneficiary towards an economic security net. The effort resulted in the Social Security Act of 1935 to provide "Greater Security for the Average Man" (Neocleous 369). The idea of ‘social security’ affected retirement security directly. Private companies found the liberal thought process behind social insurance to be the perfect tool for countering the criticism against capitalism. Companies rapidly expanded "insurance, healthcare and income-maintenance options" like retirement plans projecting a paternalistic image (372). However, a series of events with political and economic ramifications in the latter half of the 20th century again changed the conception of retirement security for both employers and employees. By discussing the changes in the retirement planning landscape and the associated terms, we will understand the current state and the future of worker security in the U.S.

The primary vehicle for providing the pensions was the Defined Benefit plans or D.B. plans, as we will refer them in the rest of the paper. As the name suggests, D.B. plans provide employees a defined benefit, usually a fixed monthly payout based on their years of employment, accrual rate, and average salary of the past few years before retirement(Broadbent et al. 3). Hence, D.B. plans provide the benefits at retirement as part of a fixed formula tied to the employment period rather than depending on the plan's investment returns. The most significant advantage of a D.B. plan is that the monthly payout is a lifetime commitment to the employee by the employer. Employers are legally obligated to make the promised payments once the benefits accrue and are vested. The employer assumes all the investment risks associated with the D.B. plan and hence, controls the retirement fund(Kaplan 57). By 1975 almost 98% of public sector employees and 88% of private-sector employees were covered by D.B. pension plans (Munnell et al., “Why have Defined”, 2). D.B. Plans still dominate the public sector, but the private sector has moved to an alternate retirement plan type.

Originating in 1956, Defined Contribution or D.C. plans were the less popular of the two plan types available to employees. D.C. plans started as profit-sharing plans by the employers, which through later changes, allowed employees to make tax-deferred contributions (Sollee 78). As Broadbent et al. describe, a D.C. plan is a pension scheme where "workers accrue funds in individual accounts administered by the plan sponsor. The contributions of employees are typically deducted directly from their pay and frequently some portion of these contributions is matched by the employer"(Broadbent et al. 7). At retirement, the employee receives a lump sum of the savings amount. However, as opposed to D.B. plans, return on the D.C. plan investment is subject to market risk, and there is no fixed payout at the time of retirement. The most prominent feature of D.C. plans is the transfer of risk from employer to employee in maintaining her retirement portfolio. An employer is not legally bound to provide the employee with a fixed benefit. On the flip side, the employee is free to invest her retirement fund in a plan option she deems profitable. Though D.C. plans were less attractive than D.B. plans before 1980, a series of events in the 60s and 70s changed the status quo.

Due to a string of high-profile bankruptcies, the crisis of terminated pension plans became a public focus in the 1960s. Leading the charge was the infamous Studebaker case (Lowenstein). Facing reduced sales and tough competition, the already failing auto manufacturer closed its last production plant in South Bend, Indiana, in December of 1963. With the firm declaring bankruptcy, workers were suddenly left with no pensions to cover their future. The case was already in media highlight due to past woes of Studebaker and the fight for workers' benefits by the labor union, United Auto Workers (UAW). During the litigation against Studebaker, UAW actuary Max Block commented that “when a pension plan is terminated, its funds are never better than inadequate," leaving the worker with an uncertain future and his family in economic insecurity (Wooten 68). However, even after an aggressive campaign by UAW, the fall eventually left many workers high and dry as only those who had already retired could get an assured pension. Describing the case as the 'Most Glorious Story of Failure in the Business', James Wooten writes that 4192 employees, many with “40 years of service … received a lumpsum payment worth 15 percent of the value of their pension” (77). The human tragedy that unfolded in the Studebaker case and a few other companies like Penn Central Railways created a lack of trust towards employers in American workers, which needed a timely solution.

The social turmoil following bankruptcies jolted the government to take definite measures to safeguard workers' rights and preserve employee trust in the establishment. Starting in 1965, New York Senator Jacob Javits commenced a very public campaign for pension reforms (Whitten). With the help of the Senate Labor Subcommittee set up to investigate private pensions, he publicized the inadequate funding of many D.B. plans. There was also substantial outside support from labor unions towards the cause. During the bankruptcy of Penn Central Railways in 1970, UAW president Leonard Woodcock expressed his displeasure on government trying to bail out the investors but not providing any insurance to “meet the urgent need of wage earners and lower-salaried workers who stand to lose the protection of privately negotiated pensions” (Wooten 160). Testimonies of workers like Stephan Duane brought private D.B. plan failures into the nation's attention. Due to his company shutting shop, Stephan was left with no pension to cover his retirement. His agony, and disappointment is evident in his description of himself as a "big loser with 32 years [of service and getting] absolutely nothing out of it" (US Cong. Sen. Comm. On Labor 119). By the early 1970s, media routinely covered the pension problem with September 12, 1972, NBC broadcast of *Pensions: The Broken Promise* showing the consequences of poorly funded pension plans on millions of American workers. Soon after, Javits presented the status of active D.B. plans and gave an ominous warning that “millions of American workers will [never] get anything from the plans on which they stake their future” (164). Such claims, combined with public support towards the cause, made a persuasive case for Congress to take action without further delay.

After a decade-long fight for pension reforms, in 1974, Congress passed the Employee Retirement Income Security Act (ERISA) to protect workers' pension funds in the private sector. As Tyler Bond notes in *Why Pensions Matter*, "ERISA regulates how an established pension plan operates, including vesting requirements and the survivor benefits for spouses. It also created the Pension Benefit Guaranty Corporation [PBGC], which acts as a backstop for closed pension plans that do not have the funds to pay promised benefits"(3). Not only did ERISA protect workers' rights in ensuring a safer retirement, but it also assuaged the growing insecurity in the mind of many Americans regarding the dependability of their employers. Though ERISA's purpose was to alleviate the D.B. plan problem in private firms, its implementation and changes in tax code in subsequent years actually marked the beginning of the shift from D.B. to D.C. plans.

New provisions in the Internal Revenue Code (IRS) and a series of regulatory changes in the 1980s ushered in the era of D.C. plans. In 1978, IRS started offering a provision for employees to take cash wages or direct them to an individual retirement account via section 401(k). The tax deferral provision provided in the 401(k) became lucrative for companies to latch on, and they moved most of their employees towards D.C. plans. Soon after, strict reporting guidelines on funding/vesting and rising PBGC premiums increased the administrative burden to keep D.B. plans running. (Broadbent et al. 19-20). Per participant cost increased from $1 to $16 between 1974 and 1990, resulting in many employers freezing their D.B. plans(Cong. Res. Service, “Pension”, 20). A move from D.B. to D.C. plan halved the administrative cost for the employer and became the preferred retirement scheme for most of the private enterprises. However, as we will discuss next, the changes eventually created a new set of problems.

The Non-applicability of ERISA in the public sector contributed heavily towards making D.B. plans a political tool. D.B. plans provided by the state or local government organizations were never under the regulatory framework of ERISA or PBGC, which kept the costs of running such plans low. As a result, D.B. plan participation in the public sector dropped only 12% in 45 years (1975 – 2020) (Munnell et al. 5, Cong. Res. Service, “Worker”, 3). Much of the support towards maintaining the status quo of D.B. plans is the working of labor union-government nexus (Butrica et al.) Most government jobs like teachers and firefighters are unionized, giving them immense bargaining capability. As Healey et al. have observed:

Public sector unions are often highly involved in raising funds and donating to the campaigns of political candidates, often with the goal of preserving the pension status quo … As important as it may be to take on the challenge [of pension reform] many lawmakers are still politically incentivized to maintain the status quo for as long as possible. (34)

Due to the power unions hold, candidates will find it increasingly difficult to get elected if they do not promise to maintain or increase the defined benefits provided to the public sector employees. Hence, pensions that started as a social program supported by the government to provide a dignified living for retirees devolved into a political tool used in election promises (McGuinn 4).

Political agenda, unfortunately, took over the good intentions behind ERISA and 401(k), especially when we see the apathetic treatment of the private sector employees left only with the option of D.C. plans. The U.S. government followed a policy of laisse-faire when dealing with the subject of retirement security in the private sector as it decided not to impose binding requirements on private sector companies to offer D.B. plans. Instead, it decided to provide favorable tax treatment to encourage D.C. plans. This move suggests that policy-makers supported the employers with potential lobbying power and influence over campaign contribution while making the private sector employee to look out for herself. As shown in Figure 1, the number of D.C. plan participants in the private sector has increased from 10 million to 85 million (an increase of 850%) between 1975 and 2019, whereas D.B. plans have decreased 43% in the same period. This statistic is a glaring testimony to the government's stance on retirement security on the lines of "political philosophy of individual responsibility vs. state responsibility for retirement savings” (Munnell et al., “Why have Some”, 7). It is not that the support of D.C. plans is fundamentally wrong, but without an alternative, government’s policy leaves the employee at the mercy of employers and market forces.

A picture containing text, receipt

Description automatically generated

Figure 1: Active Participants in Private-Sector Pension Plans 1975-2019

Source: Iekel

The new retirement paradigm brought by D.B. to D.C. plan shift was also a result of changing employer-employee relationship, which affected the meaning of loyalty and support in the workplace. In the 1980s, as a response to growing global competition, many U.S. companies backed new management strategies like the 'Six Sigma' methodology centered on efficiency and keeping labor costs low (Semuels). Organizations started favoring a rolling door approach in treating their employees and downsized their workforce. Not much importance was given to retention and hence, a need for playing the role of a caretaker by providing life-long pensions. Employers on practical consideration preferred the D.C. plan model as it promoted a low-obligation environment to look after the retirement security of the employee. Researchers like Peter Cappelli and Daniel Yankelovich talk about this phenomenon as the breakdown of an implicit contract between the employer and the employee. The old model of loyalty for a lifetime economic security was no longer the norm (Cappelli 200-202). Echoing the opinion, Economist Katharine Abraham says that “restructuring of the employment relationship marginalizes workers because employers no longer have a long-term commitment to them. Workers become less secure as companies try to hedge against a volatile business cycle” (Abraham 85). As discussed above, promotion of D.C. plans went in parallel with abandoning D.B. plans. Pensions were the symbol of employer responsibility towards worker retirement and “by freezing DB pensions, firms unilaterally renegaded on this implicit contract” (Patki 6). The social implication of the new retirement support ideology adopted by employers soon started showing its effects on the employees.

The shift to D.C. plans started a new cycle of broken trust between employer and employee. With the freezing of D.B. plans, only the existing employees of an organization could get the pension benefits. Giving new joiners the lone option of D.C. plans meant potential morale issues and the ability to perform the job efficiently. Commenting on the same, Pension Review Board states: “If retirement benefits for new hires are perceived to be less generous than benefits in place for current members, the implication may be that future employees are expected to work for a lower total compensation package” (Pension Review Board 17). The new situation led to mistrust and insecurity in the workplace. It is ironic that a call for pension reforms came from restoring trust in corporations and promoting worker security, but the implementation perpetuated the original problems. In the old model, the employer banked on the employee commitment, just as the employees trusted the company in providing stable employment and retirement security (Cappelli 204). With the trust gone, questions on loyalty and insecurity crept into the minds of both the employer and the employee, respectively. The new employer-employee relationship combined with other factors, as discussed below, has given birth to a new breed of employees with a very different approach towards jobs and retirement security.

As a response to the changing employment situation and personal ambitions, generation X and millennials have a higher proclivity for job-switching, increasing the popularity of D.C. plans(Rajnes 24). The rationale behind the D.B. plan structure was to promote longer job tenure with an organization. However, with D.B. plans gone and taking the security of pensions with them, more and more employees in the private sector are going for newer jobs every 3-4 years. Also, encouraging a shorter tenure with an organization is a desire for faster career growth. For most new-age employees, earning a higher salary is the top consideration, especially if they have an education loan or to increase their standard of living(Hershbein 2, Karahan). As the salary increase in the ongoing job is negligible to the increase obtained via a shift, employees are always looking for new opportunities (Miller). As a result of the new trend, millennials can have up to 20 jobs in their career compared to only 12 for baby boomers (Bakker, US BLS). In such a job environment, a D.C. plan like 401(k) makes much more sense for the employee to protect her retirement saving from being lost as it is not tied to an employer like a D.B. plan and is transferable from one job to the other. Though a move to D.C. plans has its justifications, it also has ramifications for retirement security.

Accepting D.C. plans as a primary source of savings provides insight into perplexing retirement considerations of the modern employee. D.C. plans indeed align better with an employment situation where the employee is not looking for any long-term commitment. However, it also strengthens a low-obligation attitude in the private sector towards retirement security. So, in a bid to look after herself, the employee is also perpetuating the problem of no assured pension benefits. In the desire for a higher salary and climbing the corporate ladder, employees move away from the traditionally ‘safe’ public jobs, where defined benefits are still common (Pub. Retirement Res. Lab 1). As employees gravitate towards private jobs, they take up D.C. plans which means they alone are now responsible for their retirement. They weigh the needs of the present in terms of earning a good salary, higher than the certainty of a monthly pension under a D.B. plan, something known as hyperbolic discounting (Knoll 24). To secure their future, they willingly or unwillingly depend on their judgment about retirement investment, a theme we will touch on next in this paper. Overall, it will not be incorrect to say that many employees, in order to take advantage of job-switching and D.C. plans, certainly play a gamble with their retirement security.

An increased risk appetite because of familiarity with the financial market is also one of the strong factors contributing to the move towards D.C. plans. Since the early 1980s, deregulation and technological advances have contributed significantly to the number of U.S. households having direct stakes in mutual funds and stocks (Broadbent et al. 21, Duca 1). With more information on how the stock market works, people exhibit a degree of confidence in managing their own investments. This behavior directly leads to employees opting for (when presented a choice) or accepting (when there is no choice) a D.C. plan to manage their retirement savings. From data collected by Saad and Jones, the percentage of Americans who own stocks either directly or through 401k type D.C. plans has been above 50% since 1999, a number which was below 22% in 1975 (Duca 10). As stated in an article from *Money* magazine, the new employee mantra is "Give me more choices, and let me manage them myself, thank you very much” (Smith and Kirwan). Employees' understanding of financial markets may increase their acceptance of retirement risk, but many experts find the behavior akin to over-confidence.

Research in behavioral economics shows that most employees managing their retirement portfolio via D.C. plans actually do not have sufficient knowledge to make complex investment decisionsand, in the process, jeopardize their retirement security (Stabile 88). No other case study than the bankruptcy of ENRON explains this point better. ENRON, a giant in the energy sector, went through a major accounting scandal declaring bankruptcy in December 2001. Many ENRON employees at that time had contributed to what is known as Employee Stock Ownership Plans (ESOP), a type of D.C. plan, where individuals buy the stocks of their own company at a discounted price (Kruse 224). Due to their familiarity with the company, they perceived ESOP as safer than other D.C. plans that invest money in the open market. However, this perception was due to an incorrect understanding of ENRON's financial standing. Overnight the stock price went from $90 to $1, wiping out the retirement savings of thousands of workers. Highlighting the tragedy in a Senate Subcommittee hearing on the case, Representative Greg Walden stressed on the fact that "too many workers saw their retirement vanish … [due to] many years of financial statements [being] misleading at best or downright fraudulent at worst.” (US Cong. House 43). As evident, the scale of catastrophe to an employee’s future economic security is immense in such events. The eagerness to manage retirement savings but a lack of understanding of the complexity associated with D.C. plans also shows up in a couple of other cases.

Employees want more control and display a desire to manage their retirement portfolios. However, they often do not understand the options presented to them or make decisions based on only past performance of a particular D.C. plan (DiCenzo 13). Many employees miscalculate the money they will require at retirement and make exiguous contributions to their D.C. plans (DiCenzo 7, Russell 78). In such cases, a lack of sound retirement strategy leads to insufficient savings in their retirement nest egg. Also, with market forces strongly influencing the retirement savings in D.C. plans, a situation of uncertain final savings amount is created. During a period of economic prosperity, many employees invest in plans that seem lucrative based on their short bull run, but as the financial market fluctuates, so does the retirement savings of millions of people (Russell 90-91). The current situation with D.C. plan proliferation means that the retirement security of a vast majority of American workers is dependent on markets being friendly at the time of their retirement. Any variation from the norm like that of the 2002 dot-com bubble burst, or the 2008-2010 financial crisis, plunges all the retirees into a crisis. The biggest advantage of D.C. plans is providing autonomy to the employee in planning her retirement. However, this requires substantial financial literacy to choose the right investment option. Such considerations are not always possible for employees, as Nobel Laureate Robert Merton argues, and hence, retirement security under D.C. plans becomes a betting game (Merton 8).

Just like insufficient understanding reduces the efficacy of investment control under D.C. plans, another advantage of loan against 401(k) account becomes a source of retirement insecurity in many cases. D.C. plans like 401(k) allow hardship/non-hardship withdrawals against the retirement account. However, this feature comes with interest on the loan amount, tax implications, and penalties (Kronson 13). Employees usually take a loan against the retirement savings for education or make hardship withdrawals to deal with illness or death in the family. At a cursory examination, the option seems helpful, but a deeper analysis reveals the problem of reduced retirement savings (Villareal and Reeves 2). In the case of non-repayment of the loan, employee faces the risk of having reduced or no savings in her retirement account. The biggest problem is the lack of restraint shown by some employees in making non-hardship/early withdrawals, which incur heavy penalties plus taxes. Such employees treat their retirement savings account as an emergency fund rather than insurance towards a safer retirement (Kronson 15, Sammer 45). Advantages like loan and withdrawal incentivize the shift from D.B. to D.C. plans. However, at the same time, it puts the employee in a riskier position by making it possible to break the retirement nest egg prematurely.

The insufficiency of retirement savings, whether due to the inherent nature of D.C. plans, incomplete knowledge, or behavioral aspects, has researchers point to a retirement crisis in the United States (Ellis et al., Russell, Ghilarducci and James). Retirement studies in the past decade reveal a general inadequacy of savings amongst American workers of all age groups. Especially in households nearing retirement, 62% have retirement funds equal to only one times their annual income (Rhee and Boivie 1). The present situation has serious implications for the future of worker security. After a lifetime of work, most elders will be poor or near-poor in their retirement. This situation will strain the already depleting Social Security Trust Fund and put tremendous strain on “social safety net programs, from the Supplemental Nutrition Assistance Program to Medicaid” (Ghilarducci and James 5). Another aspect of the crisis is the personal costs to families with more and more parents depending on their children to provide long-term care. With rising costs of healthcare, rent, and childcare; eldercare will further reduce the ability of young workers to contribute to D.C. plans (Ghilarducci and James 3, Parker at al. 45). Even congressional hearings on retirement crisis have drawn similar concerns from Senators like Sherrod Brown: "Without retirement savings, aging parents become dependent on their working-age children, preventing those children from saving for their own retirement” (US Cong. Sen. Comm. on Fin. 2). Many policy-makers and experts recognize the dire savings situation, which the people echo in their thoughts on retirement security.

Various surveys capture the pessimism amongst American workers concerning their retirement. As per the BlackRock DC Pulse Survey of 2021, 76% Millennials and 68% Gen Xers feel they will not have the same retirement income level as retirees of the previous generation (Escalent Inc. 45). 40% of participants in Charles Schwab’s 2018 401(k) Survey voted that "Saving enough for a comfortable retirement" is the no. 1 source of their financial stress (Logica Res. 2). One of the most striking results of the surveys is that 84% of Americans believe they may have to work well into their 70s, with some stating that they might never be able to retire (Parker et al. 46, Dickler). The sad state of affairs where the inability to retire looks like a real possibility speaks volumes about the depth of the retirement crisis. The above data points are drops in the ocean of retirement troubles for Americans and reminiscent of concerns existing before 1935.

In many ways, the current situation is a turn to American worries regarding dignified living and retirement that existed before and during the Great Depression. With mass migration to cities after the 1880s, people often worked well into their old age to support an urban lifestyle. Work injuries were common amongst the elderly, decreasing the life quality with every passing year (Fleming et al. 917). Due to health and physical constraints, many would drop out of the workforce, falling into poverty, or becoming completely dependent on their children. With not much savings for their own retirement, the dependency added to the stress of the younger cohort of workers. The Great Depression only magnified the problem with everyone struggling to make even the living wages (Moen and Gratton 1). The ideas around ‘social security’ alleviated this situation by arguing for retirement pensions which improved overall wellbeing and provided assurances of economic security to workers in all age segments. However, history is repeating itself with the current perilous retirement savings situation, and an inherent difference between D.B. and D.C. plans has only exacerbated it.

Deepening the retirement crisis is the longevity risk and the inability of D.C. plans to take full benefit of social insurance. With people living longer than before, savings done under D.C. plans often fail to provide for an entire lifetime. D.B. plans avoid this issue by risk pooling and maintaining their payout rate based on average longevity estimates. That means retirees expiring early pay for those who live longer (Russell 95). In a D.C. plan, individual savings is all the worker can count on. Financial products that generate an income stream using D.C. plan money use maximum longevity estimates. Hence, if a retiree does not have enough money in her retirement fund, she will see a tiny paycheck every month. Living poor in retirement is a real possibility due to the above complexities (Broadbent et al. 28). With D.B. to D.C. plan shift and longer lifespans, society has gone from benefits outliving the worker to the worker outliving her retirement savings. In nutshell, D.C. plans along with the longevity risk, distort the ideas around pension and contribution given by social insurance.

The shift from Defined Benefits to Defined Contributions due to political considerations, fracturing of the employer-employee social contract, and the new worker sensibilities started a new chapter in the history of retirement security in the U.S. The various advantages of D.C. plans also have the potential to derail the retirement of an individual; a fact often brushed under the carpet. It is no wonder then that an incessant march towards D.C. plans has created a dangerous over-reliance resulting in inadequate retirement savings. Just like in the depression era, a concerted effort from the government, organizations, and workers is the need of the hour to resolve the retirement crisis and safeguard the future of millions of Americans.

Works Cited

Abraham, Katharine. “Restructuring the Employment Relationship: The Growth of Market- Mediated Work Relationships.” *New Developments in the Labor Market*, MIT Press,

1990, pp. 85-120. Print.

Bakker, Alissa. “Generation Gap: How to Connect Boomers & Millennials.” *Blankslate Partners Blog*, [www.blankslate.partners/boomers-millennials-generation-gap/](http://www.blankslate.partners/boomers-millennials-generation-gap/)

Bond, Tyler. *Why Pensions Matter*. National Public Pension Coalition, Mar. 2017, protectpensions.org/files/2017/03/CA\_Why-Pensions-Matter.pdf

Broadbent, John, et al. “The Shift from Defined Benefit to Defined Contribution Pension Plans - Implications for Asset Allocation and Risk Management.” *Bank for International Settlements*, Dec. 2006, [www.bis.org/publ/wgpapers/cgfs27broadbent3.pdf](http://www.bis.org/publ/wgpapers/cgfs27broadbent3.pdf)

# Butrica, Barbara A., et al. “The Disappearing Defined Benefit Pension and Its Potential Impact on the Retirement Incomes of Baby Boomers.” *Social Security Bulletin*, vol. 69, no. 3, 2009, [www.ssa.gov/policy/docs/ssb/v69n3/v69n3p1.html](http://www.ssa.gov/policy/docs/ssb/v69n3/v69n3p1.html)

Cappelli, Peter, et al. *Change at Work*. Oxford University Press, 1997. *EBSCOhost*, search- ebscohost- com.stanford.idm.oclc.org/login.aspx?direct=true&db=nlebk&AN=53314& site=ehost-live.

Congressional Research Service. “Pension Benefit Guaranty Corporation (PBGC): A Primer.” *Congressional Research Service Reports*, 8 Jan. 2021, sgp.fas.org/crs/misc/95-118.pdf

---. “Worker Participation in Employer Pensions: Data in Brief.” *Congressional Research Service Reports*, 23 Nov. 2021, sgp.fas.org/crs/misc/R43439.pdf

DiCenzo, Jodi. “Behavioral Finance and Retirement Plan Contributions: How Participants Behave, and Prescriptive Solutions.” *EBRI Issue Brief*, Washington, DC: Employee Benefit Research Institute, no. 301, Jan. 2007, ssrn.com/abstract=959002

Dickler, Jessica. “41% of Americans say it’s ‘going to take a miracle’ to be ready for retirement, report finds.” *The New Road to Retirement*, CNBC, 14 Sep. 2021, [https://www.cnbc.com/2021/09/14/36percent-of-americans-say-they-wont-have-enough- to-retire-report-finds.html](https://www.cnbc.com/2021/09/14/36percent-of-americans-say-they-wont-have-enough-%09to-retire-report-finds.html)

Duca, John. *The Democratization of America's Capital Markets*. Economic and Financial Policy Review, issue 2, pp. 10-19, [www.dallasfed.org/ assets/documents/ research/efr/ 2001/efr0102b.pdf](http://www.dallasfed.org/%20assets/documents/%20research/efr/%09%092001/efr0102b.pdf)

Escalent Inc. *2021 BlackRock DC Pulse*. BlackRock, March 2021, www.blackrock.com/ [institutions/](http://www.blackrock.com/institutions/)en-us/insights/defined-contribution/dc-pulse-survey-2021#

Fleming, Kevin, C., et al. “A Cultural and Economic History of Old Age in America.” *Mayo*

*Clinic Proceedings*, vol. 78, no. 7, July 2003, pp. 914-921, oce-ovid-com.stanford.idm.oclc.org/article/00005625-200307000-00020/HTML

Ghilarducci, Teresa, and Tony James. *Rescuing Retirement*. Columbia University Press, 2018, pp. 1-42. Print.

Healey, Thomas, et al. “Underfunded Public Pensions in the Pension Politics: Public Employee Retirement System Reform in Four States 47 United States: The Size of the Problem, the Obstacles to Reform and the Path Forward.” *M-RCBG Faculty Working Paper*, Mossavar-Rhaman Center for Business and Government, Apr. 2012, 34-35, www.hks.harvard.edu/centers/

Hershbein, Brad, et al. “Major Decisions: Graduates’ Earnings Growth and Debt Repayment.” *Papers*, The Hamilton Project, 29 Sep. 2014, www.hamiltonproject.org/papers/ major\_decisions\_graduates\_earnings\_growth\_debt\_repayment

Iekel, John. “Dramatic DB to DC Shift, Graphically.” *American Society of Pension Professionals and Actuaries*, 29 Dec. 2021, [www.asppa-net.org/news/dramatic-db-dc-shift-graphically](http://www.asppa-net.org/news/dramatic-db-dc-shift-graphically)

James Wooten. *The Employee Retirement Income Security Act of 1974: A Political History*. University of California Press, 2004. *EBSCOhost*, [search-ebscohost-](https://search-ebscohost-)com.stanford idm.oclc.org/login.aspx?direct=true&db=nlebk&AN=295128&site=ehost-live.

Kaplan, Richard L. "Enron, Pension Policy, and Social Security Privatization." *Arizona Law Review*, vol. 46, no. 1, 2004, p. 53-90. *HeinOnline*, [www.arizonalawreview.org/pdf/46-1/46arizlrev53.pdf](http://www.arizonalawreview.org/pdf/46-1/46arizlrev53.pdf)

Karahan, Fatih, et al. “Job Ladders and Careers.” *Liberty Street Economics Blog*, Federal Reserve Bank of New York, 8 Oct. 2019, libertystreeteconomics.newyorkfed.org/2019/ [10/job-ladders-and-careers/](https://libertystreeteconomics.newyorkfed.org/2019/10/job-ladders-and-careers/)

Knoll, Mellisa A.Z. “Behavioral and Psychological Aspects of the Retirement Decision.” *Research, Statistics & Policy Analysis*, Social Security Administration Bulletin, vol. 71, no. 4, 2011, [www.ssa.gov/policy/docs/ssb/v71n4/v71n4p15.pdfs](http://www.ssa.gov/policy/docs/ssb/v71n4/v71n4p15.pdfs)

Kronson, Marc. “Employee Costs and Risks in 401(k) Plans.” *Monthly Labor Review*, U.S. Bureau of Labor Statistics, Jun. 2000, [www.bls.gov/opub/mlr/cwc/employee-costs-and- risks-in-401k-plans.pdf](http://www.bls.gov/opub/mlr/cwc/employee-costs-and-%09risks-in-401k-plans.pdf)

Kruse, Douglas L. "Pension Substitution in the 1980s: Why the Shift Toward Defined Contribution Pension Plans?” *Working Paper Series*, National Bureau of Economic Research, no. 3882, Oct. 1991, pp. 218-241, doi:10.3386/w3882

Logica Research. *2018 401(k) Participant Survey*. Charles Schwab Corporation, Aug 2018, [content.schwab.com/web/retail/public/about-schwab/Schwab\_401k\_Participant \_Survey\_deck\_2018.pdf](https://content.schwab.com/web/retail/public/about-schwab/Schwab_401k_Participant_Survey_deck_2018.pdf)

Lowenstein, Roger. “The Long, Sorry Tale of Pension Promises.” *The Wall Street Journal*, 1 Oct. 2013, [www.wsj.com/articles/the-long-sorry-tale-of-pension-promises](http://www.wsj.com/articles/the-long-sorry-tale-of-pension-promises)

McGuinn, Patrick. “Pension Politics: Public Employee Retirement System Reform in Four States.” *Brown Center on Education Policy at Brookings*, Feb. 2014, pp. 4-7, [www.brookings.edu/wp-content/uploads/2016/06/Pension-Politics\_FINAL\_225.pdf](http://www.brookings.edu/wp-content/uploads/2016/06/Pension-Politics_FINAL_225.pdf)

Merton, Robert C. ["The Crisis in Retirement Planning."](http://www.hbs.edu/faculty/product/47602) *Harvard Business Review*, nos. 7/8, July–August 2014, pp. 43–50, robertcmerton.com/wp-content/uploads/2017/08/The -Crisis-in-Retirement-Planning-HBR-2014-Merton.pdf

Miller, Stephen. “2019 Salary Budgets Inch Upward Ever So Slightly.” *Society for Human Resource Management*, Society for Human Resource Management, 16 Jul. 2018, [www.shrm.org/resourcesandtools/hr](http://www.shrm.org/resourcesandtools/hr)-topics/compensation/pages/2019-salary-budgets- inch-upward.aspx

Moen, Jon R., and Brian Gratton. “Tracking the majority: households, older workers, and retirement during the Great Depression.” *J Gerontol B Psychol Sci Soc Sci.,* Jan. 2000, pp. 28-32, doi:10.1093/geronb/55.1.s28.

Munnell, Alicia, et al. “Why have Defined Benefit Plans Survived in the Public Sector.” *State and Local Pension Plans*, Center for Retirement Research at Boston College, no. 2, Dec. 2007, crr.bc.edu/wp-content/uploads/2007/12/slp\_2.pdf

---. “Why have Some States Introduced Defined Contribution Plans?” *State and Local Pension Plans*, Center for Retirement Research at Boston College, no. 3, Jan. 2008, crr.bc.edu/wp-content/uploads/2008/01/slp\_3.pdf

National Conference on Public Employee Retirement Systems. “The Evolution of Public Pension Plans: Past, Present and Future.” *Research Publications*, March 2003, [ncpers.org/files/evolution\_of\_public\_pensions\_2d.pdf](http://www.ncpers.org/files/evolution_of_public_pensions_2d.pdf)

Neocleous, Mark. “From Social to National Security: On the Fabrication of Economic Order.” *Security Dialogue*, vol. 37, no. 3, Sept. 2006, pp. 363–384, doi:[10.1177/0967010606069061](https://doi.org/10.1177/0967010606069061).

Nuschler, Dawn, et al. “Social Security: Mandatory Coverage of New State and Local Government Employees.” *Congressional Research Service Reports*, 25 Jul. 2011, [www.teacherpensions.org/sites/default/files/CRS%202011%20Report.pdf](http://www.teacherpensions.org/sites/default/files/CRS%202011%20Report.pdf)

Parker, Kim, et al. “Retirement, Social Security and long-term care.” *Research Topics*, Pew Research Center, 21 March 2019, [www.pewresearch.org/social-](http://www.pewresearch.org/social-) trends/2019/03/21/retirement-social-security-and-long-term-care/

Patki, Dhiren. 2021. “Breaking the Implicit Contract: Using Pension Freezes to Study Lifetime Labor Supply.” *Federal Reserve Bank of Boston Research Department Working Papers*, no. 21-7, [doi:10.29412/res.wp.2021.07](https://doi.org/10.29412/res.wp.2021.07)

Pension Review Board. “A Review of Defined Benefit, Defined Contribution, and Alternative Retirement Plans.” *Publications and Reports*, Texas Pension Review Board,no. 12-001, May 2012, [www.prb.texas.gov/txpen/wpcontent/uploads/2019/11/finaldbdcwhitepaper.pdf](http://www.prb.texas.gov/txpen/wpcontent/uploads/2019/11/finaldbdcwhitepaper.pdf)

Public Retirement Research Lab. “Long-Tenure Workers a Much Greater Force in Public-Sector Plans.” *Research: Trends in Public-Sector Employee Tenure*, 21 May 2020, www.ebri.org/docs/default-source/prrl/study-snapshots-t/01-sst\_tenure\_21may2020.pdf

Rajnes, David. “An Evolving Pension System: Trends in Defined Benefit and Defined Contribution Plans.” *EBRI Issue Brief*, Washington, DC: Employee Benefit Research Institute, no. 249, Sep. 2002, papers.ssrn.com/sol3/papers.cfm?abstract\_id=341100

Rhee, Nari, and Ilana Boivie. *The Continuing Retirement Savings Crisis*. National Institute on Retirement Security, 18 March 2015, doi:10.2139/ssrn.2785723

Russell, James W. *Social Insecurity: 401(k)s and the Retirement Crisis*. Beacon Press, 2014, pp. 76-101. Print.

Sammer, Joanne. “A Delicate Balancing Act.” *HR Magazine*, Society for Human Resource Management, 1 Jan 2013, pp. 45-49, [www.shrm.org/hr-today/news/hr](http://www.shrm.org/hr-today/news/hr) -magazine/pages/0113-401k-loans-and-withdrawals.aspx

Semuels, Alana. “How the relationship between employers and workers changed.” *Los Angeles Times*, 7 Apr. 2013, [www.latimes.com/business/la-xpm-2013-apr-07-la-fi-mo-harsh-](http://www.latimes.com/business/la-xpm-2013-apr-07-la-fi-mo-harsh-) work-history-20130405-story.html

Smith, Kelly, and Roberta Kirwan. “America’s Best Company Benefits.” *CNN Money Magazine*, 1 Oct. 1999, money.cnn.com/magazines/moneymag/moneymag\_archive/1999/10/01/ 266453/index.htm

Sollee, William L., "Cash or Deferred Arrangements (Section 401(k): Legal Issues and Plan Design.” William & Mary Annual Tax Conference, 1983, scholarship.law.wm.edu/tax/534

Stabile, SJ. “The Behavior of Defined Contribution Plan Participants.” *New York University Law Review*, vol. 77, no. 1, Apr. 2002, [www.nyulawreview.org/issues/volume-77-number-](http://www.nyulawreview.org/issues/volume-77-number-) 1/the-behavior-of-defined-contribution-plan-participants/

United States Bureau of Labor Statistics. “Number of Jobs, Labor Market Experience, Marital Status, and Health: Results from a National Longitudinal Survey Summary.” *Economic News Release*, 31 Aug. 2021, www.bls.gov/news.release/nlsoy.nr0.htm

United States, Congress, House of Representatives. *Lessons Learned from Enron’s Collapse: Auditing the Accounting Industry*. Government Printing Office, 5 Feb 2002, [www.govinfo.gov/app/details/CHRG-107hhrg77986/context](http://www.govinfo.gov/app/details/CHRG-107hhrg77986/context). 107th Congress, 2nd Session.

United States, Congress, Senate. Committee on Labor and Public Welfare. *Private Welfare and Pension Plan Study: Hearings before Subcommittee on Labor.* Government Publishing Office, 11 Aug. 1971, [www.google.com/books/edition/\_/-](http://www.google.com/books/edition/_/-)ZBU4HFMpLkC?hl=en&sa =X&ved=2ahUKEwjS2MH0kr32AhXrm-AKHZcfCXEQ7\_IDegQIChAC. 92nd Congress, 1st Session.

United States, Congress, Senate. Committee on Finance. *The Role of Social Security, Defined Benefits, And Private Retirement Accounts in the Face of the Retirement Crisis: Hearing Before the Subcommittee on Social Security, Pensions, And Family Policy of the Committee On Finance*, Government Publishing Office, 18 Dec. 2013, https://catalog.hathitrust.org/Record/102385841. 113th Congress, 1st Session.

Villarreal, Pamela and Robert Reeves. “401(k) Loans = Retirement Insecurity.” *NCPA Brief Analysis*, National Center for Policy Analysis, no. 615, 25 Apr. 2008, [research.policyarchive.org/5830.pdf](http://research.policyarchive.org/5830.pdf)

Whitten, Leslie H. “Javits Aims to Protect Union Funds.” *Journal American*, 2 Aug. 1965. Print