Paycheck to Paycheck

A Path to Financial Readiness

Capt. Jack D. Pinnell
U.S. Army

Abstract

Despite the multitude of financial resources available to service members, statistics show that soldiers are comparatively worse off than their civilian peers in terms of financial stability. Household financial planning in the Army receives organizational emphasis that is not necessarily commensurate with its potential impact on soldiers. This article explores the current landscape of personal finance among soldiers in the Army and examines opportunities for improvement in Army education that can bridge the gap between current metrics and desired readiness levels. Statistical observations of soldiers' financial position are examined in terms of assets and liabilities. Relevant resources available to soldiers are highlighted, and quantitative metrics are used to justify additions to doctrine, leadership, and training. The article concludes with a survey of the benefits of improved financial literacy in the Army and recommendations for further exploration.

On Monday morning, Pfc. Smith arrives to work in a red sports car fresh off the lot. Even though the sticker price was more than he will earn in a year, the dealer offered to set him up with a financing package at the attractive rate of 28.5% APR. On a separate occasion, Warrant Officer 1 Doe, the unit mobility officer, has his security clearance revoked a month before deployment due to his large unpaid debts. These vignettes are not isolated cases in the Army. Smith and Doe are emblematic of a larger issue in the military population that is not confined to the more junior cohort: lack of personal finance knowledge. The National Foundation for Credit Counseling (2019b), which publishes an annual summary of the financial health of Americans, reported that 34% of active duty service members are unable to pay their bills on time and that 11% have debts in collection. These numbers stand in stark contrast to the general public's reported amounts of 25% and 5% for the same two categories, respectively (National Foundation for Credit Counseling, 2019a). Army leaders in every generation have observed the above statistics as they occur. Soldiers' financial health presents outsized risk to the readiness of a formation that is not depicted on the average unit's command and staff slides. Despite the abundance of financial opportunities afforded solely to service members, many soldiers repeatedly demonstrate that they are not educationally equipped to make prudent financial decisions. Many of the liabilities borne by soldiers pose considerable risks to their financial well-being. The Army can reap significant tangible and intangible benefits in this domain by expanding the formal and informal educational resources available to soldiers. This process will entail developing instructional doctrine, revamping financial literacy training, and further engaging leaders in the financial health of their formations.

Debt and Savings

Examination of the asset column of the average soldier's finances offers insights into the overall picture of personal finance in the Army. Nonretirement savings activity within military families is one troubling feature of the financial health landscape. In 2019, service members surveyed by the Consumer Federation of America most frequently reported saving between $251 and $2,500 in liquid assets over the year (Caban, 2019). As might be expected, density functions of service member savings show that yearly savings amounts are positively correlated with rank. This phenomenon, at face value, seems to reflect the increase in disposable income as rank increases. However, proportional savings and rank remain positively correlated when normalized for annual income (Caban, 2019). These observations suggest that soldiers gain financial know-how gradually and with experience rather than early in their careers. This delay can have massive implications in terms of the time value of money.

Similarly troubling is that 24% of survey respondents reported that debt repayment was the primary objective of their savings, a higher percentage than any other savings category. Since 2014, debt repayment has increased relative to every other savings category (Caban, 2019). While the reduction of high-interest debt is a justifiable priority, this trend suggests that higher debt load year-over-year might also be a factor. The net effect of these phenomena is likely a reduction in the amount of cash on hand to manage current expenses and liabilities. The relatively low amounts saved by soldiers in liquid assets are not for lack of support, however. Multiple resources exist that can strengthen the ability of the average soldier to save and budget. For example, soldiers deployed abroad can reap an annualized 10% return on funds deposited in the Savings Deposit

Capt. Jack Pinnell, U.S. Army, is a UH-60 Black Hawk pilot and Army Aviation officer stationed at Camp Humphreys, Korea. He holds a bachelor's degree in mechanical engineering from the U.S. Military Academy at West Point. He is a recent graduate of the Aviation Captains Career Course and a CFA Level I candidate. He has been previously assigned to Joint Task Force Bravo at Soto Cano Air Base, Honduras, and 3rd Combat Aviation Brigade at Hunter Army Airfield, Georgia.

Program, a rate unparalleled in public fixed income products of similar credit quality (Defense Finance and Accounting Service, 2019). Additionally, most bases employ contractors in the Army Community Service (ACS) division whose job it is to support healthy savings habits. While service members who employ these resources or similar programs throughout their career have a marked advantage, current statistics do not suggest that the average soldier is doing so effectively.

Retirement Savings and Thrift Savings Plan Allocations

Soldiers also demonstrate poor financial planning initiative in a second category of the asset column: retirement savings. The Army's shift from its legacy "High 3" retirement system to the Blended Retirement System mirrors the global growth of defined contribution models in retirement funds (Ang, 2014). This change puts the uninformed soldier at an even higher risk of substandard retirement account performance if he or she is not familiar with the Thrift Savings Plan (TSP). The TSP is a fantastic vehicle for tax-advantaged retirement savings, offering several low-fee funds representative of the broader market and no-cost portfolio rebalancing. However, the advantages it offers are underutilized by many soldiers. Until 2015, contributions to the TSP went by default into the fixed income "G" Fund, which has narrowly outpaced the rate of inflation over the last decade (Federal Retirement Thrift Investment Board, 2019). Generations of soldiers who did not adjust this allocation suffered substandard performance relative to the overall market due to their 100% weight in government fixed-income securities. The current convention automatically allocates soldiers' money to a target date fund constructed using mean-variance optimization for the assumed risk appetite of their age group (Nestler, 2007). While this is a marked improvement over previous years, data from the 2018 TSP investment allocations is still troubling. Over 10% of service members below the age of 30 and 20% below the age of 40 are still 100% invested in the G Fund (Federal Retirement Thrift Investment Board, 2019). This approach, while benefiting from being virtually risk free, would likely be recommended by few asset managers for this population. Individuals in younger age groups have a considerably different wealth utility curve than older service members and would ostensibly benefit from more market exposure (Ang, 2014). Even TSP officials remark in their 2018 annual report that certain groups invest solely in funds that "may not be the best option" for their personal investment horizon (Federal Retirement Thrift Investment Board, 2019). Investment allocations to the "S" and "I" funds, tracking small-cap and international stock indexes, are also concerning. Investors with a longer time horizon stand to gain significantly from exposure to value investing and international diversification. However, the average allocations to these two factors total only 11% of young participants' portfolios (Federal Retirement Thrift Investment Board, 2019). Given these peculiar statistics, it is no surprise that the standard for "education" on the TSP Blended Retirement System is a mandatory online class that can be finished in 15 minutes. This training is wholly inadequate to serve the needs of the population and can result in substandard investment performance. In the financial education domain, the Army seems not to place significant emphasis on modern adult learning techniques in hopes that soldiers will learn on their own time.

Real Estate Investments

Real estate is a common addition to the asset column of soldiers' balance sheets. While a home can offer attractive returns, military families face numerous risks in their real estate investments that can further endanger their financial well-being. Real estate investing is a popular subculture within Army circles, with numerous social media resources that advocate real estate investments specifically for service members. Behind much of this popularity is the Veterans Affairs (VA) Home Loan, a product that gives soldiers the ability to own a home for a low or zero-down payment at an attractive interest rate. In 2018, over 700,000 veterans and active duty service members had a current VA home mortgage (Consumer Financial Protection Bureau, 2018). While a useful tool, the VA loan gives soldiers access to an astounding amount of leverage at an early point in their careers. In the years since the 2008 housing crisis, steady gains in home prices and falling interest rates have lulled many military investors into complacency toward the risk inherent in the real estate market. The short average holding period between permanent change-of-station moves and interest-heavy early mortgage payments incurred by military homebuyers make expected value calculation difficult and can increase return variability. High transaction costs over this short time frame can significantly impair the profit potential of buying a home. If the service member decides to instead hold his or her property when he or she moves, he or she is often at the mercy of management agencies. Service members can also face market liquidity risk when trying to receive a fair sale price. The statistics on veterans' mortgages seem to accurately reflect these harsh realities. A 2017 survey by the Financial Industry Regulatory Authority found that veterans were 40% more likely than civilians to be underwater on their mortgages and 28% more likely to have made a late mortgage payment in the last year (Williams & Pellecchia, 2017). These statistics call into question whether real estate should be more commonly filed as a liability than an asset in the service member's balance sheet.

Liabilities: Cars and Other Traps

The most common liabilities soldiers incur are further glaring evidence of personal financial mismanagement. The most prominent liability in many soldiers' possession is their automobile. The classic vignette of junior enlisted soldiers purchasing new trucks and sports cars at inflated interest rates is a sad reality in many formations. In many cases, the average car purchase made by service members exceeds their reasonable budget. Data collected by USAA in 2019 showed that the top three most purchased cars by Army soldiers were the Ford F-150, Chevrolet Silverado, and Dodge Ram (USAA, 2020). Base models of these vehicles roll off the lot in the low $30,000 range, with higher trim levels reaching upward of $40,000. General financial planning principles hold that most individuals should spend between 10% and 30% of their gross annual income on car purchases. Assuming these metrics, a conservative estimate of the yearly salary required to buy one of the three above cars is $150,000. This pay rate is realistic only for higher field grade and general officers, a subset that represents less than 10% of the total force (U.S. Department of Defense [DOD], 2018, p. 15). The population mean base pay of less than $50,000 in the Army is incongruent with the type of cars most often seen on military installations. The monthly cash outflows to these liabilities can detract significantly from savings and investment activity among soldiers and contribute to their debt load.

Imprudent accrual of liabilities extends well beyond the purchase of automobiles, however. The Office of Servicemember Affairs, a subsidiary of the Consumer Financial Protection Bureau, maintains a yearly record of financial marketplace complaints by service members. Of the complaints logged in 2019, the vast majority referenced debt collection, mortgages, credit cards, and various loans (Consumer Financial Protection Bureau, 2019, p. 23). Liabilities such as cash advances, credit card debt, and consumer loans are more likely to affect service members than their civilian peers, as predatory lending is commonplace in the areas surrounding military installations. Junior service members with low credit scores and little money management experience are prone to falling victim to high-interest debt (Fox, 2019). The magnitude of the liabilities in many soldiers' balance sheets is a significant threat to their financial readiness.

Resources versus Reality

The systemic financial stress experienced by soldiers despite their available resources appears to represent a gap in knowledge. The American soldier has numerous financial resources not afforded to his civilian counterparts. For example, the Military Lending Act (MLA) of 2006 (Federal Deposit Insurance Corporation, 2016) and Servicemembers Civil Relief Act (SCRA) of 2003 (Mason, 2014) provide low caps on borrowing interest rates, provisions for termination of leases, and protections from eviction, among other boons for servicemembers. The military offers robust life insurance and healthcare policies at bargain-basement prices to service members and their families. Soldiers have access to a highly liquid network of low-interest lending offered by the Army Emergency Relief (AER) fund (Army Emergency Relief, n.d.). They also have the benefit of a stable, predictable paycheck, and high job security. Despite these resources, large portions of the military remain financially troubled.

Military families, in comparison to their civilian counterparts, are 20% more likely to report financial strain at grades below O4 and three times as likely below the grade of E7 (Hosek & Wadsworth, 2013). For reference, the E1-O3 and E1-E6 populations represent 93% and 69% of the Army's strength, respectively (U.S. DOD, 2019). In 2019, the Office of Servicemember Affairs found that 4,700 to 8,000 service members are separated each year from the military for financial issues (Consumer Financial Protection Bureau, 2019, p. 7). These statistics are perplexing, as the average service member has numerous supporting financial agencies at their beck and call. This incongruity suggests that soldiers are largely unaware of what support is available to them, or how to utilize it properly. Any financial education currently provided has done little to improve financial decision making in the Army.

Even a soldier with a current weapons card, medical screening, and PT test, the standard checks of readiness, can still carry financial burdens that drag down unit readiness. The thousands of soldiers separated for financial issues every year can leave squads, platoons, and companies understrength in critical occupational specialties (Consumer Financial Protection Bureau, 2019, p. 7). In multiple cases, service members have had security clearances revoked due to the perceived recklessness of their debt (Associated Press, 2006). These situations have a direct impact on readiness. A platoon sergeant about to lead his unit on a night raid should not have to worry if Pfc. Smith will have to return from deployment early to address his delinquent bills. A soldier drowning in high-interest debt with no exit strategy can be just as great a risk to readiness as his peer who has not fired his assigned weapon in two years. It will likely take the former soldier's chain of command longer to find a solution than the latter's. The time spent addressing individual financial issues could be better spent perfecting mission essential tasks.

Doctrine: Codifying Personal Finance Standards

Doctrinal changes are the first part of the puzzle to codify what financial readiness looks like for the Army. In many military fields, doctrinal publications are the bedrock of instructional design. Learning outcomes are tailored to doctrinal guidelines that come from hundreds of years of soldier experience in warfighting. Unfortunately, no such doctrinal body of knowledge exists for Army financial literacy education. A brief search of the Army publications catalog reveals hundreds of documents detailing the financial management of acquisitions, unit budgets, and services. Notably absent from this group is any active comprehensive reference for soldiers who wish to improve their financial knowledge. In a readiness-focused Army that puts incredible stress on individual competencies, this is unconscionable.

Current Army doctrine regarding soldier finance is mainly punitive in nature. As observed in a 2003 study, "although Army Regulation 600-15, *Indebtedness of Military*

Personnel, mandates soldiers to wisely manage their finances and promptly pay debts, it does not provide instructional advice for success. Instead, it is more creditor-focused, requiring leaders to process complaints against soldiers" (Peterson, 2003, p. iii). There is a need for instructional doctrine to balance out reactionary policies on financial management. The Army "Ready and Resilient" program is designed to confront complex issues that are individual to each soldier and it provides a potential framework for the doctrine of financial readiness. In resiliency training, soldiers receive both formal and informal instruction on how to deal with physical and emotional stressors through healthy coping strategies and thought processes. The roadmap to financial health requires many of these same competencies. The Ready and Resilient program, a more recent doctrinal addition, is a proof-of-concept that doctrinally backed educational initiatives can rapidly integrate into the force and generate an impact. Publication of doctrine by a group of professionals with demonstrated financial knowledge is a vital first step in developing financial literacy education for the Army.

Education and Training

While doctrine can codify the tenets of financial readiness, practical education is the key to raising the bar on personal finance acumen. The Army has a handful of worthwhile digital resources that deal with personal finance, but comparatively fewer opportunities exist for in-person instruction (Murphy, 2018). Too often, online training is viewed by soldiers as a distraction from their duties, and many will go to significant lengths to avoid it. In the current high operational tempo environment, it is all too easy for online training to be skipped through or disregarded. As such, it might benefit from the addition of face-to-face engagements. The employment of blended learning, combining these instructional avenues, has demonstrated merit in numerous studies and would be a natural feature for the financial education domain (Fortuna, 2017). Basic marksmanship and land navigation are not learned solely through computer-based classes and neither should basic money management skills.

The efficacy of military educational programs that identify specific issues and address them through personalized instruction is undeniable. Efforts in the Army's safety domain are particularly relevant to the discussion of effective education and training. In an example from the aviation safety field, one program shows how effective training generates quantifiable results in soldier performance. As early as 2004, Army Aviation identified aircrew coordination as a factor in the steadily climbing aviation accident rate. In response, the Army created the Aircrew Coordination Training–Enhanced (ACT-E) program. The program institutes both digital and in-person education conducted by trained safety experts and accompanied by deep audio/visual resources. The learning objectives are clearly defined in both doctrinal references and course materials. During the program of instruction, soldiers can directly visualize hazards to safety, discuss best practices, and gain insight into the underlying decision-making process (*Flightfax*, 2004). Annual roundtable discussions at the unit level bring visibility to current issues in execution, directly address failures, and create greater awareness of the issues at hand. Instructors have personal expertise in the subject matter and can effectively convey pertinent information. The training is relevant, personal, and does not devolve into buzzword preaching. Instructors justify the importance of the issue in the minds of students and gain buy-in through realistic presentation of subject material that students can connect to their own experiences. The ACT-E program, in concert with parallel modernization efforts and greater overall safety emphasis, led to a steady decline in accident rates for a decade after its institution (U.S. Department of the Interior, 2014, p. 4). While an admittedly anecdotal example, the success of the ACT-E program, and others like it, demonstrate that military educational programs are quantifiably effective when conducted in accordance with relevant adult education principles. The Army's approach to personal finance education should model these same ideals.

The creation of a training program to address financial planning competencies will require the concerted efforts of leaders at multiple echelons. A good start might be to hire additional financial services professionals to conduct a core curriculum of instruction for garrison units. ACS contractors are employed in this function at most units (U.S. DA, 2015a), but several factors limit their impact. Department of Defense Instruction 1342.22 only mandates one financial readiness counselor per ACS division, or approximately one per duty station (U.S. DOD, 2012). In a division of over ten thousand soldiers, there are simply not enough finance professionals to conduct regular training for the entire population. Regulations require those employed in these positions to have any "nationally accredited financial counseling certification" (U.S. DOD, 2012, p. 17). However, there is little depth in financial readiness offices. Soldiers interested in investment portfolio construction have no specialized investment advisor to contact. Those needing specialized tax planning advice are not likely to find a certified public accountant in the ACS office. The financial readiness support system, as it exists, would benefit from the addition of a deeper, wider talent pool. To the Army's credit, the very existence of the Financial Readiness Program (FRP) is a step in the right direction. Nevertheless, as it stands today, the FRP is not extensive enough and does not garner enough unit involvement to be effective, as evidenced by current statistics.

Another possibility for improved training would be to create "master financial trainers" from units at a battalion or lower level and send them back into the force to teach specialized classes. This approach, modeling the safety efforts previously discussed, would only be as effective as the translation between field experts and unit delegates. However, ensuring appropriate rigor of course material and equipping unit trainers with doctrinally sound course outlines could potentially yield favorable results. Structured courses aside, first-line leadership could also become the primary informal personal finance trainers. Officer and NCO professional military education (i.e., Basic Officer Leaders Course, Captains Career Course, Advanced Leader Course, Senior Leader Course) could include expanded blocks of instruction on basic financial resource information and best practices. This expansion of knowledge would give first-line supervisors the ability to speak with a degree of authority on personal finance topics without giving specific investment advice. The end state of this initiative would see financial readiness becoming part of the Army's core curriculum of educational material in both professional military education and unit-level instruction.

Leadership Involvement

The final piece of the puzzle in building soldiers' financial readiness is leader involvement. Without adequate emphasis from leaders within Army units, educational efforts are unlikely to be successful. Leaders must monitor the state of financial affairs within their formation and identify what issues merit further instruction. The monthly Unit Commanders' Finance Report provides information about pay discrepancies to commanders, but it could paint a better picture of financial health if reinforced with more data. For instance, direct deposit pay, credit score, TSP contributions, outstanding travel card balances, known large debts, and any other reportable payment obligations could form a model of relative financial readiness for each soldier. The combination of these weighted factors, along with optional surveys, would create a more complete financial risk model. Financial literacy is historically difficult to measure quantitatively (Baker & Ricciardi, 2014). However, Army leaders serve in a profession where they know their soldiers individually and could infer from this data where their unit is lacking. Leaders could use these insights to create informal learning opportunities for soldiers on financial topics. As noted by Baker and Ricciardi (2014), financial literacy education provided by leaders can convincingly improve decision-making among subordinates. Quantitative management of financial readiness can be an essential tool for leaders in improved financial education.

Qualitative measures might also be useful in gauging soldier financial readiness. Soldiers reaching out to their leadership to solicit financial assistance would be better served by a standardized menu of options than the sporadic knowledge of their chain of command. As Field Manual (FM) 6-22, *Leader Development*, states, leaders "provide subordinates with (or direct them to) the necessary resources for development" (U.S. Department of the Army [DA], 2015b, p. 7-48). To this end, financial readiness enablers should draw from an "order of operations" contained in the corresponding doctrine that would direct soldiers to the appropriate resource. For example, Pfc. Smith informs Capt. Brown that he is two months behind on his car payment and has no savings built up. Brown should be able to reference an Army techniques publication, directing Smith to an AER loan and FRP counselor and helping him set realistic goals for starting a monthly savings contribution. Not all soldiers will ask for help when they need it, but leaders should remain vigilant for signs of financial distress. The defining characteristics of the "develops others" competency, as described in FM 6-22, is the ability of leaders to "assess the developmental needs of others" and "counsel, coach, and mentor" (U.S. DA, 2015b, p. 7-46). Effective leadership in the financial domain involves coaching subordinates, modeling prudent risk behavior, and providing mentorship opportunities. These educational tenets are already applied by Army leaders every day. Indeed, the approach implied by FM 6-22 is corroborated by modern studies of adult learning behaviors in the financial domain. Taylor et al. (2010) note that "learners need to be more actively involved for significant learning to take place" (p. 471). The Army leadership style promotes frequent engagement with subordinates that generates consistent active involvement. The combination of data-driven and qualitative approaches to total financial readiness will likely reveal more areas that commanders are exposed to risk and give them tools to address it.

Benefits of Improved Financial Literacy

The benefits, both tangible and intangible, of improving financial knowledge across the Army are considerable. The most direct, observable effect of better financial readiness will be the recoupment of lost productivity costs. A seven-year study of the Navy's Personal Financial Management Program found that a conservatively estimated $172 million is lost in work time, assuming only 10% of the population is experiencing financial difficulties (Luther et al., 1997, p. iv). This number increases significantly with any higher expected rate of financial stress. Lending programs would also benefit from better financial health across the force. AER, which provided over $69 million in emergency financing in 2017, would likely be able to expand the scope of their grants dramatically, given a reduction in personnel needing their assistance (*Army Emergency Relief*, 2017, p. 15). Improvement in Army financial education would undoubtedly have an impact on retention as well. Financial readiness improvements are a natural addition to The Army's nascent Talent Management Task Force, which is charged with acquiring and retaining a high-quality force (U.S. DA, 2016). Retaining soldiers requires not only the service members themselves to commit to continuing their Army career but also their dependents. In 2018, financial stress was cited as the top lifestyle stressor among military families (Sonethavilay et al., 2018, p. 16). For the population groups most prone to financial difficulty, improvements in household financial planning are likely to be significant factors in the decision to stay in the Army. It is estimated that each separation of a service member costs the DOD over $57,000 (Limitations on Terms of Consumer Credit Extended to Service Members and Dependents, 2014). Given this staggering figure, the Army stands to gain materially in both cost savings and retention of talent.

The Army can reap possibly its greatest reward from improved financial literacy in the area of physical and behavioral health. The linkage between financial stress and behavioral health is firmly established in the Forum on Health and National Security's 2016 examination of these two factors (Ursano et al., 2016). A team of economists, medical professionals, and resilience experts found that "financial stress impacts mental and behavioral health as well as servicemember and family function" (Ursano et al., 2016, p. 1). A nontrivial proportion of the challenges the Army faces in improving behavioral health can likely be attributed to financial well-being. Distress that leads to substance abuse, depression, family violence, and suicide can occur as a direct result of money management behaviors (Ursano et al., 2016). The panel conclusively recommended that "identifying, testing and evaluating universal training (active skills training) and prevention programs should be part of planned financial management and planning education across the career and family life cycle" (Ursano et al., 2016, p. 4). Integrating finance education into the military culture could be a massive step toward improving quality of life for soldiers and reducing the incidence of behavioral health issues. The prospective improvements in readiness from these efforts to address systemic issues are substantial.

Conclusion and Recommendations for Future Research

Solving the Army's financial literacy problem is a complex task that requires full engagement at all levels of leadership. The Army, unfortunately, mirrors the U.S. educational system in its lack of coverage of personal finance topics and would benefit greatly from their addition. In order to better serve soldiers, further research is necessary on what specific tools are most useful for each cohort. While junior soldiers might need information on bedrock strategies for saving and budgeting, older service members with higher fixed costs would likely benefit from retirement and tax planning, as well as portfolio management information. In addition, further study is needed to identify which modern adult education principles are ideal to convey financial subject matter to the military student. Although doctrinal changes do not happen overnight, interim guidance for leaders to promote healthy behaviors and turn the tide of financial distress should be carefully considered. There remain a number of avenues of the financial readiness landscape that can and should be explored to generate the best future outcomes for soldiers.

Soldiers have all the resources they need to be financially healthy, but financial readiness efforts in doctrine and training are still necessary to give them the roadmap to success. The purpose of financial readiness programs should not be to add yet another "check the block" requirement but to teach soldiers where they can improve and reveal where commanders are assuming risk. The combination of sound doctrine and practical training with leadership engagement is a time-tested method for affecting organizational change—and can be leveraged to this end. The creation of a comprehensive financial readiness program is a lofty goal, but is entirely achievable given the success of similar readiness efforts in other domains. Soldiers at every level will benefit from gaining personal finance skills during their time of service and beyond. Financial education must be a core tenet of the Army's people strategy for the future in order to maintain a high-quality force that can fight and win in any environment. ☙

References

Ang, A. (2014). *Asset management*. Oxford University Press.

Army Emergency Relief. (n.d.). Retrieved 25 January 2020 from https://www.aerhq.org/

Army Emergency Relief. (2017). *2017 annual report*. https://www.aerhq.org/Portals/0/2018%20Annual%20Report.pdf

Associated Press. (2006, October 20). *Debt holds U.S. troops back from overseas duty* [Newsgroup post]. NBC News. http://www.nbcnews.com/id/15337932/ns/us_news-military/t/debt-holds-us-troops-back-overseas-duty/

Baker, H. K., & Ricciardi, V. (Eds.). (2014). *Investor behavior: The psychology of financial planning and investing*. Wiley Finance. https://doi.org/10.1002/9781118813454

Caban, A. (Comp.). (2019). *Military saves saver survey*. Military Saves. https://militarysaves.org/images//M_images/SaverSurvey2019/2019-Military-Saves-Saver-Survey-Results.pdf

Consumer Financial Protection Bureau. (2019). *Office of servicemember affairs – Annual report*. https://files.consumerfinance.gov/f/documents/cfpb_osa_annual-report_2018.pdf

Defense Finance and Accounting Service. (2019). *DoD savings deposit program* [Fact sheet]. https://www.dfas.mil/militarymembers/payentitlements/sdp/

Federal Deposit Insurance Corporation. (2016). Military lending act. In *Consumer Compliance Examination Manual* (pp. V-13.1–V-13.17).

Federal Retirement Thrift Investment Board. (2019, June). *Annual report of the thrift savings plan*. U.S. Government Publishing Office. https://www.frtib.gov/ReadingRoom/Congress/TSP-Annual-Report_2018.pdf

Fortuna, E. J. (2017). Learning at a distance: The potential and perceptions of distributed learning. *Journal of Military Learning*, *1*(1), 52–65. https://www.armyupress.army.mil/Journals/Journal-of-Military-Learning/Journal-of-Military-Learning-Archives/April-2017-Edition/Learning-at-a-Distance/

Fox, M. (2019, July 3). *Predatory lenders prey on military members. Here's how to avoid being victimized*. CNBC. https://www.cnbc.com/2019/07/03/how-military-members-can-protect-themselves-from-predatory-lenders.html

Hosek, J., & Wadsworth, S. M. (2013). Economic conditions of military families. *The Future of Children*, *23*(2), 41–59. https://doi.org/10.1353/foc.2013.0009

Limitations on Terms of Consumer Credit Extended to Service Members and Dependents, 32 C.F.R. § 232 (2014). https://www.federalregister.gov/documents/2014/09/29/2014-22900/limitations-on-terms-of-consumer-credit-extended-to-service-members-and-dependents

Luther, R. K., Garman, E. T., Leech, I. E., Griffith, L., & Gilroy, T. (1997). *Scope and impact of personal financial management difficulties of service members on the department of the navy*. Military Family Institute.

Mason, R. C. (2014). *The servicemembers civil relief act (SCRA): An explanation* (RL34575). Congressional Research Service.

Murphy, J. (2018). *Financial readiness personal assistant for learning (FR-PAL) final report*. Quantum Improvements Consulting.

National Foundation for Credit Counseling. (2019a). *Consumer financial literacy survey*. The Harris Poll. https://www.nfcc.org/resources/client-impact-and-research/2019-consumer-financial-literacy-survey/

National Foundation for Credit Counseling. (2019b). *Military financial readiness survey*. The Harris Poll. https://www.nfcc.org/resources/client-impact-and-research/2019-military-financial-readiness-survey/

Nestler, S. T. (2007). Non-Gaussian asset allocation in the federal thrift savings plan. In J. Tew (Ed.), *WSC '07: Proceedings of the 39th conference on winter simulation* (pp. 1004–1012). Informs Simulation Society

Peterson, D. F. (2003). *Training the force: Developing financially fit service members for today's military*. U.S. Army Command and General Staff College

Sonethavilay, H., Maury, R. V., Hurwitz, J. L., Uveges, R. L., Akin, J. L., De Coster, J. L., & Strong, J. D. (2018). *Military family lifestyle survey: Comprehensive report*. Blue Star Families. https://bluestarfam.org/wp-content/uploads/2019/03/2018MFLS-ComprehensiveReport-DIGITAL-FINAL.pdf

Taylor, E. W., Tisdell, E. J., & Sprow, K. (Eds.). (2010). *Financial literacy for adult learners in community-based settings: A mixed methods study*. Adult Education Research Conference, Sacramento, CA, United States. https://newprairiepress.org/aerc/2010/papers/75/

Ursano, R, Fullerton, C, & Dichtel, M. (Eds). (2016). *Financial stress and behavioral health in military servicemembers: Risk, resilience, mechanisms and targets for intervention*. Forum on Health and National Security, Bethesda, MD. doi:10.13140/RG.2.1.2261.7360

USAA. (2020). *USAA's top 10 vehicles for the military community*. https://communities.usaa.com/t5/Going-Civilian/USAA-s-Top-10-Vehicles-for-the-Military-Community/ba-p/232895

U.S. Army Combat Readiness Center. (2004, October). Our Army at war. *Flightfax, 32*(1), p. 3. https://safety.army.mil/Portals/0/Documents/ON-DUTY/AVIATION/FLIGHTFAX/Standard/Combined_Year/2004_Flightfax_Combined.pdf

U.S. Department of the Army. (2015a). *Financial readiness* [Fact sheet]. https://www.army.mil/standto/archive_2015-04-20/

U.S. Department of the Army. (2015b). *Leader development* (Field Manual 6-22). U.S. Government Publishing Office. https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/fm6_22.pdf

U.S. Department of the Army. (2016, August 11). *Army talent management task force* [Fact sheet]. https://www.army.mil/standto/archive_2016-08-11/

U.S. Department of Defense. (2012). *Military Family Readiness* (DOD Instruction 1342.22). U.S. Government Printing Office. https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/134222p.pdf

U.S. Department of Defense. (2019, November 30). *Active duty military personnel by rank/grade*. Defense Manpower Data Center. https://www.dmdc.osd.mil

U.S. Department of the Interior. (2014). *Fiscal year 2014 DOI annual aviation safety summary/report*. Office of Aviation Services. https://www.doi.gov/sites/doi.gov/files/uploads/fy14_doi_aviation_safety_summary.pdf

Williams, A. P., & Pellecchia, R. (2017, September 15). *First-ever national study finds veterans faring slightly better financially than civilians* [Press release]. FINRA. https://www.finra.org/media-center/news-releases/2017/first-ever-national-study-finds-veterans-faring-slightly-better