CONSUMER FINANCIAL PROTECTION BUREAU JANUARY 2025

Auto lending to servicemembers

Consumer Financial Protection Bureau

Table of Contents

Executive Summary

Servicemembers' experience in the auto lending market has implications for their economic well-being and financial stability. In particular, debt may affect whether servicemembers receive and maintain a national security clearance.[1] In addition to possible loss of their security clearance, servicemembers who fail to pay their debts also face other unique consequences such as military disciplinary action, delayed career progression, and termination from employment. In this report, we analyzed loan-level information from six lenders and found that servicemembers experience increased financial risks at many points in auto lending compared to non-servicemembers.

The key findings in this report are as follows:

1. **Servicemembers borrowed more than non-servicemembers.** The average amount financed by servicemembers for new vehicles was approximately $39,000, more than $2,200 more than the average amount financed by non-servicemembers. For used vehicles, servicemembers' average amount financed was over $27,500, almost $400 more than the average amount financed by non-servicemembers.

2. **Servicemembers and non-servicemembers purchased similarly priced vehicles.** Servicemembers paid approximately $45,000 for new vehicles and nearly $30,000 for used vehicles. Compared with non-servicemembers, servicemembers paid about $500 more for new vehicles and almost $460 less for used vehicles.

3. **Servicemembers are less likely to make a cash down payment and make smaller down payments when they do.** Servicemembers were less likely to make cash down payments for both new and used cars than non-servicemembers. Servicemembers who did make downpayments paid less than non-servicemembers. The average downpayment for servicemembers who did make a downpayment was about $1,100 less than for non-servicemembers for new vehicles and, for used vehicle purchases, about $500 less than for non-servicemembers.

4. **Servicemembers were more likely to trade in vehicles with negative equity.** The share of servicemembers with a negative equity trade-in is higher than the share among non-servicemembers by 6.7 percentage points for new vehicle loans and by 4.0 percentage points for used vehicle loans. When negative equity was included in financing a new vehicle

[1] The Department of Defense has previously reported that 80 percent of security clearance revocations each year are related to financial difficulties. See Congressional Research Service, *Military Families and Financial Readiness*, Report R46983, December 9, 2021, available at https://crsreports.congress.gov/product/pdf/R/R46983.

purchase, the average negative equity for servicemembers was $5,900, over $240 more than for non-servicemembers. For used vehicle purchases, the average negative equity for servicemembers was almost $4,000, which was over $130 more than for non-servicemembers.

5. **Servicemembers spent more on add-on products than non-servicemembers, although both groups paid for similar add-on products.**[2] Over 70 percent of both servicemembers and non-servicemembers purchased at least one add-on product with their vehicle. Servicemembers paid an average of over $3,300 for add-on products for new vehicles and over $3,000 for add-on products on used vehicles, almost $140 more and $60 more, respectively, than non-servicemembers paid. Warranty/service/maintenance plans were the most common category of add-on products purchased by both servicemembers and non-servicemembers, as well as the highest-priced category of add-on products. Guaranteed Asset Protection (GAP) product[3] purchases among servicemembers sharply increased in 2020 after a change in Department of Defense interpretive rules related to the Military Lending Act.

6. **Servicemembers had higher interest rates and longer loan terms than those of non-servicemembers.** For servicemembers, the average annual percentage rate (APR) was 5.3 percent for new vehicle loans and 9.3 percent for used vehicle loans; both APRs were 0.6 percentage points (60 basis points) higher than their respective average APRs for non-servicemembers. Accounting for borrowers' credit scores, average APRs for servicemembers were higher than for non-servicemembers by 0.35 percentage points (35 basis points) for new vehicle loans and by 0.28 percentage points (28 basis points) for used vehicle loans. The average loan term was longer by three months for new vehicle loans and one month for used vehicle loans for servicemembers than non-servicemembers.

7. **Higher amounts financed and higher APRs translated into higher monthly payments for servicemembers than non-servicemembers, even accounting for servicemembers' longer loan terms.** The average monthly payment for new vehicle loans was over $644 for servicemembers, nearly $20 more than for non-servicemembers. For used vehicle loans, the average monthly payment was over $500 for servicemembers, $7 more than for non-servicemembers. Higher monthly payments contributed to higher vehicle payment-to-income ratios.

[2] Add-on products are supplemental goods and services that may be purchased with a vehicle. They include (but are not limited to): extended warranties, service plans, guaranteed asset protection products, and products that protect specific elements of the vehicle, such as the tires, paint, or electrical components.

[3] GAP products cover the difference between what a borrower owes on a vehicle loan and the vehicle's value in the event of a total loss due to an accident or theft.

8. **In contrast with the above findings, servicemembers were less likely to have their vehicle repossessed or voluntarily surrendered compared with non-servicemembers.** Rates of repossession or voluntary surrender for servicemembers were approximately half of those among non-servicemembers. Federal and state protections for servicemembers regarding repossession of personal property may explain, in part, the lower rate of repossessions. Loan modifications were also slightly less likely among servicemembers. However, the loan modification data do not allow us to determine if servicemembers had less need for or less access to loan modifications.

1. Introduction

This report provides data and analysis regarding the differences in auto loans for servicemembers and their families when compared to non-servicemembers. The report fills an important gap in existing literature regarding how servicemembers finance their vehicles and the outcomes of those loans. [4]

1.1. Background on servicemembers' use of auto loans

Congress in 2010 required the CFPB's Office of Servicemember Affairs (OSA) to coordinate with Federal and state agencies on consumer protection efforts related to consumer financial products used by servicemembers and military families. Congress also assigned specific responsibilities to OSA related to vehicle financing.[5] This report is issued in furtherance of that statutory requirement.

Almost 92 percent of all households have at least one motor vehicle.[6] Given how reliant servicemembers tend to be on their vehicles to fulfill the basic duties of military service, the percentage of servicemembers and military families who own at least one vehicle is likely higher.[7]

[4] The dataset used for this analysis includes certain de-identified information for almost 34 million loan originations from 2018 to 2022, including terms, fees, and balances, as well as information on individual servicing events for each loan, if any occurred. Approximately 200,000 loan originations involved servicemembers. More information about this data can be found at https://www.consumerfinance.gov/about-us/blog/our-auto-finance-data-pilot/.

[5] 12 U.S.C. § 5493(e)(1)(C) and 12 U.S.C. § 5519(e). The OSA also has a broader statutory requirement at 12 U.S.C. § 5493(e) to educate and empower military families on all other consumer financial products and services. The OSA's other statutory duties include monitoring servicemember complaints and coordinating military consumer financial protection efforts as appropriate.

[6] U.S. Census Bureau, *2023 American Community Survey, 1-Year Estimates Subject Table S2504*, available at https://data.census.gov/table/ACSST1Y2023.S2504?q=car%20ownership.

[7] Although we have been unable to find reliable data on the rate of vehicle ownership specific to servicemembers, the collective military service of our OSA team and the geographic locations of U.S. military installations suggests that serving in the military without owning a motor vehicle is nearly impossible other than for servicemembers assigned to the National Capital Region which has military installations accessible by public transit. See https://www.todaysmilitary.com/ways-to-serve/bases-around-world.

Servicemembers generally finance their vehicle, often through the dealership where they purchase it.[8] As the auto lending market has changed significantly both during and after the COVID-19 pandemic, the CFPB and its federal partners are closely monitoring the auto lending market to ensure that military families are being treated fairly.[9]

Servicemembers have been on the receiving end of deceptive marketing and lending practices by auto lenders.[10] Servicemembers who fall behind on their motor vehicle loans have also been subjected to abusive debt collection practices.[11]

Young servicemembers are almost twice as likely to have taken out a motor vehicle loan as their civilian counterparts.[12] When they do take out loans, young servicemembers accrue motor vehicle loan debt at a rate of double their civilian counterparts.[13]

Thirty-three percent of servicemembers possessing a motor vehicle loan who leave the military between seven and 35 months of service become 90-days delinquent or default on that debt within one year. By comparison, less than 15 percent of servicemembers possessing a motor vehicle loan with longer terms of military service went delinquent or defaulted within one year after separation.[14]

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[8] National Association Dealers Association (NADA), noting that more than 80% of all new vehicle purchases are financed, available at https://www.nada.org/nada/issues/vehicle-financing.

[9] *CFPB and Justice Department Caution Auto Finance Companies about Servicemember Protections, Joint Letter Reminds Auto Finance Companies of Key Federal Protections*, July 29, 2022, available at https://www.consumerfinance.gov/about-us/newsroom/cfpb-and-justice-department-caution-auto-finance-companies-about-servicemember-protections/.

[10] *CFPB Orders Auto Lenders to Refund Approximately $6.5 Million to Servicemembers*, June 27, 2013, available at https://www.consumerfinance.gov/about-us/newsroom/cfpb-orders-auto-lenders-to-refund-approximately-6-5-million-to-servicemembers/.

[11] *CFPB Orders Servicemember Auto Loan Company to Pay $3.28 Million for Illegal Debt Collection Tactics*, October 28, 2015, available at https://www.consumerfinance.gov/about-us/newsroom/cfpb-orders-servicemember-auto-loan-company-to-pay-3-28-million-for-illegal-debt-collection-tactics/. This lender violated the first consent order and was fined an additional $1.25 million to remedy their non-compliance. See https://www.consumerfinance.gov/about-us/newsroom/cfpb-issues-125-million-fine-servicemember-auto-lender-violating-consent-order/.

[12] Consumer Fin. Prot. Bureau, *New report shows how young servicemembers build credit histories*, July 14, 2020, available at https://www.consumerfinance.gov/about-us/blog/new-report-shows-how-young-servicemembers-build-credit-histories/.

[13] James V. Marrone and Susan P. Carter, Consumer Fin. Prot. Bureau, *Financially Fit? Comparing the credit records of young servicemembers and civilians*, July 2020, available at https://www.consumerfinance.gov/data-research/research-reports/financially-fit-comparing-credit-records-young-servicemembers-civilians/.

[14] James V. Marrone and Susan P. Carter, Consumer Fin. Prot. Bureau, *Debt and delinquency after military service, A study of the credit records of young veterans in the first year after separation*, November 2020, available at https://www.consumerfinance.gov/data-research/research-reports/debt-and-delinquency-after-military-service-study-credit-records-young-veterans-first-year-after-separation/.

1.2. Servicemembers face unique challenges in the auto lending market

Vehicle costs are among the largest expense for Americans.[15] Such a large financial liability can be especially challenging for newly recruited servicemembers, who are typically young, receive the lowest pay, and may lack basic personal finance skills.

Further, exposure to challenges in the auto lending market may have an even larger impact on servicemembers and their families than the general population due to the unique factors that servicemembers and their families face. Many bases do not have reliable public transportation or are in areas with no public transportation, which makes servicemembers reliant on privately owned vehicles to be on time for and perform their duty, get around on base, and travel off base. Servicemembers are an easily identifiable and targetable audience, and the geographic isolation of servicemembers limits their purchasing and financing options. Servicemembers experience proximity risk as many businesses, such as car dealerships, operate outside the gates of many military installations.[16] Further, servicemembers have limited ability to build relationships with businesses and financial institutions given the frequency of assignments and deployments.

The effects of assignments and deployments often come with adverse household economic impact as spouses' careers and job prospects are more limited compared to non-servicemember spouses. While deployed, servicemembers may be limited in their ability to communicate, receive or send mail, access electronic communications, and conduct financial transactions.

The financial challenges faced by servicemembers in the auto lending market have implications for the economic well-being and financial stability of servicemembers and their families. These challenges often come with unique consequences for servicemembers that are not faced by the general population, including military disciplinary action, suspension or loss of security clearance, delayed career progression, and termination from employment.

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[15] Shane Meyers, Geoffrey D. Paulin, and Kristen Thiel, U.S. Bureau of Labor Statistics, *Consumer Expenditures in 2023*, December 2024, available at https://www.bls.gov/opub/reports/consumer-expenditures/2023/home.htm.

[16] *Written Testimony of James S. Rice, Assistant Director, Office of Servicemember Affairs, before the House Committee on Oversight and Reform Subcommittee on National Security*, July 13, 2022, available at https://www.consumerfinance.gov/about-us/newsroom/written-testimony-of-james-s-rice-assistant-director-office-of-servicemember-affairs-before-the-house-committee-on-oversight-and-reform-subcommittee-on-national-security/.

1.3. Servicemember protections in the auto lending market

Congress has provided some protections for military families in the auto lending market. However, there are significant limitations concerning when and how servicemembers avail themselves of those protections.[17]

The Servicemembers Civil Relief Act (SCRA) provides broad protections for active duty servicemembers in situations such as foreclosures, repossessions, and court cases, and it entitles servicemembers to a six percent maximum interest rate for all pre-service obligations.[18] Most of these protections require that the servicemember's obligation was created before entering active military service; for example, if an auto loan was taken out while on active duty, the six percent interest rate cap will not apply.[19] Other protections may only apply if the servicemember has a permanent change of duty station or deploys; for example, if a servicemember leases a motor vehicle and later receives permanent change of station orders or deploys, the servicemember may terminate the lease without penalty.[20]

The Military Lending Act (MLA) provides protections from certain lending practices related to extensions of consumer credit.[21] However, the MLA specifically excludes auto loans from the definition of consumer credit.[22] Thus, servicemembers do not receive key MLA protections on auto loans, including limits to the amount a creditor may charge on interest, fees, and charges

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[17] For example, the CFPB recently found that from 2007 to 2018, fewer than 10 percent of motor vehicle loans eligible for a SCRA reduced interest rate received this benefit resulting in more than $77 million in interest payments that could have been avoided. See Charles A. Goldman and Yael Katz, CFPB, *Protecting Those Who Protect Us, Evidence of activated Guard and Reserve servicemembers' usage of credit protections under the Servicemembers Civil Relief Act (SCRA)*, December 2022, available at https://www.consumerfinance.gov/data-research/research-reports/evidence-of-servicemembers-usage-of-credit-protections-under-scra/.

[18] See generally 50 U.S.C. Ch. 50.

[19] 50 U.S.C § 3937(a)(1).

[20] *Id.* at § 3955. See also *CFPB and Justice Department Caution Auto Finance Companies about Servicemember Protections*, July 29, 2022, available at https://www.consumerfinance.gov/about-us/newsroom/cfpb-and-justice-department-caution-auto-finance-companies-about-servicemember-protections/.

[21] 10 U.S.C. § 987.

[22] *Id.* at § 987(i)(6)(B) ("The term 'consumer credit' . . . does not include . . . a loan procured in the course of purchasing a car or other personal property, when that loan is offered for the express purpose of financing the purchase and is secured by the car or personal property procured.").

for credit insurance, as well as debt cancellation and suspension, other credit-related ancillary products sold in connection with the transaction, and the 36 percent maximum interest rate.

In addition to these limited federal protections, 47 states and the District of Columbia have statutes that protect servicemembers, many of which are more generous than federal law. For example, many state laws protect National Guard personnel when called to active state service or state active duty. Others provide extended time frames for protection, are more generous for dependents, and have more requirements for legal proceedings regarding real and personal property.

2. Data description and methods

In February 2023, the CFPB launched the auto finance data pilot, issuing nine market monitoring orders to three banks, three finance companies, and three captive lenders[23] to provide information about their auto lending portfolios.[24] These data allow the CFPB to better understand loan attributes that may result in increased consumer and servicemember distress in this market. In June 2024, the CFPB published its first report using the data collected, focusing on negative equity in the auto lending market, followed by a January 2025 report on auto repossessions.[25] In this report, we provide a detailed analysis comparing servicemembers' origination and servicing outcomes with those of non-servicemembers in the auto lending market.

The auto finance data pilot includes data regarding loans originated or serviced by respondents between January 1, 2018, and December 31, 2022. The full dataset includes certain de-identified information about roughly 33.8 million loans, including terms, fees, balances, and loan servicing events. After applying filters to the dataset, as described in the CFPB's report on auto loans with negative equity, we have a dataset of 21.4 million loans.[26] From this set of 21.4 million loans, we created a "servicemember auto loan" variable using the borrower and co-borrower fields identifying military status.

Specifically, the lenders were asked to provide: (1) borrower military status; and (2) any co-borrower(s) military status, if applicable. "Military status" is defined as "the borrower or co-borrower status as an active-duty member of the armed forces including those on active Guard or active Reserve duty as defined by the Military Lending Act and Servicemembers Civil Relief Act."[27] Based on these lender-provided flags for military status, we identified more than 200,000 auto loans in the dataset with borrowers or co-borrowers flagged as servicemembers.

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[23] Captive lenders are manufacturer-owned finance companies that frequently provide below-market interest rate loans or other incentives to consumers. Some banks also operate as quasi-captive preferred lenders on behalf of certain manufacturers.

[24] Chris Kukla, Richard Landau, and Ashwin Vasan, *Our auto finance data* pilot, CFPB blog, Feb. 23, 2023, https://www.consumerfinance.gov/about-us/blog/our-auto-finance-data-pilot/.

[25] Consumer Fin. Prot. Bureau, *Negative Equity in Auto Lending*, June 2024, https://www.consumerfinance.gov/data-research/research-reports/data-spotlight-negative-equity-findings-from-the-auto-finance-data-pilot/. Consumer Fin. Prot. Bureau, *Repossession in Auto Finance*, January 2025, https://www.consumerfinance.gov/data-research/research-reports/repossession-in-auto-finance/.

[26] *Id.* at 26.

[27] *Id.* at 33.

Originations to servicemembers are approximately one percent of all originations by year in the dataset – a higher proportion of active-duty servicemembers than their estimated 0.48 percent share of the U.S. resident population age 18 years and older.[28]

Our validation of the servicemember borrower and co-borrower flags in the dataset included: (1) comparing the geography of servicemembers with an auto loan to the geography of servicemembers stationed in the United States; and (2) examining the borrower and co-borrower income source variable in the dataset. Our analyses showed that the states with the largest number of servicemember auto loan originations were the same states with the largest number of military personnel, as reported by the Department of Defense.[29] Additionally, our analysis for one lender that provided information on the borrower's (and co-borrower's) employment showed that loans identified as servicemember loans often reported a military rank, pay grade, or branch of service that was consistent with that loan belonging to a servicemember.

We also inflation-adjust all dollar-denominated variables in order to compare loan amounts, vehicle prices, and other dollar-value outcomes between 2018 and 2022. Specifically, we inflation-adjust values to December 2022, using the Consumer Price Index (CPI) for All Urban Consumers.[30]

One limitation of the dataset was that the three finance companies included in the market monitoring orders did not consistently report servicemember data. Therefore, finance company loans, which make up 8.3 percent of loans in the dataset, are not included in the comparisons between servicemembers and non-servicemembers discussed in this report.[31] In addition, Buy-Here-Pay-Here dealerships and credit unions were not included in the dataset. Lastly, the dataset has a limited set of borrower demographic characteristics for analysis besides the servicemember flags, primarily the borrowers' credit scores and incomes.

[28] The Department of Defense reported over 1.27 million active-duty servicemembers as of September 2023, and the US Census Bureau estimate of the United States' resident population age 18 years and older was approximately 262 million as of July 2023. See https://download.militaryonesource.mil/12038/MOS/Reports/2023-demographics-report.pdf and https://www2.census.gov/programs-surveys/popest/tables/2020-2023/state/detail/SCPRC-EST2023-18+POP.xlsx.

[29] "Military and Civilian Personnel by Service/Agency by State/Country," at https://dwp.dmdc.osd.mil/dwp/app/dod-data-reports/workforce-reports.

[30] We use the CPI data series provided by the Federal Reserve Economic Data (FRED) website, hosted by the Federal Reserve Bank of St. Louis. See U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: All Items in U.S. City Average [CPIAUCSL], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/CPIAUCSL.

[31] Notably, it is unknown if the finance companies that do not report servicemember data do not actually collect servicemember data. For finance companies that do not collect or report servicemember data, this may call into question their ability to comply with various federal and state consumer protection statutes regarding servicemembers.

Appendix A provides additional details about the sample selection from the dataset for this report, as well as tables and figures comparing credit scores and incomes between servicemembers and non-servicemembers in the dataset who originated an auto loan from 2018 to 2022. Servicemembers with loans in the dataset had lower credit scores compared with non-servicemembers. The median credit score for servicemembers was 721 at origination, 14 points less than the median for non-servicemembers. However, median incomes were similar: the median household income (the combined income of all associated borrowers on the loan) for servicemembers was $87,375 at origination, $953 less than the median for non-servicemembers (see Table 6 in Appendix A). We will refer to these summary statistics in credit scores and incomes between servicemembers and non-servicemembers in the context of the auto loan findings presented below in this report.

3. Servicemembers and auto lending findings

This section presents findings from the dataset that compares servicemembers and non-servicemembers on a number of dimensions in the auto lending market. We first show that servicemembers financed larger auto loans than non-servicemembers, even though both groups of borrowers purchased vehicles that were similar in value. In the next subsection, we show how servicemembers were less likely to have made a cash down payment and were more likely to have made a negative equity trade-in for their vehicle purchase, as compared to non-servicemembers. After a brief discussion of servicemembers' add-on purchases, we then present measures of financial burden in auto lending faced by servicemembers, such as higher APRs, longer loan terms, and higher payment-to-income ratios. In the last subsection, we show that servicemembers were less likely to have their vehicles repossessed and slightly less likely to receive loan modifications compared to non-servicemembers.

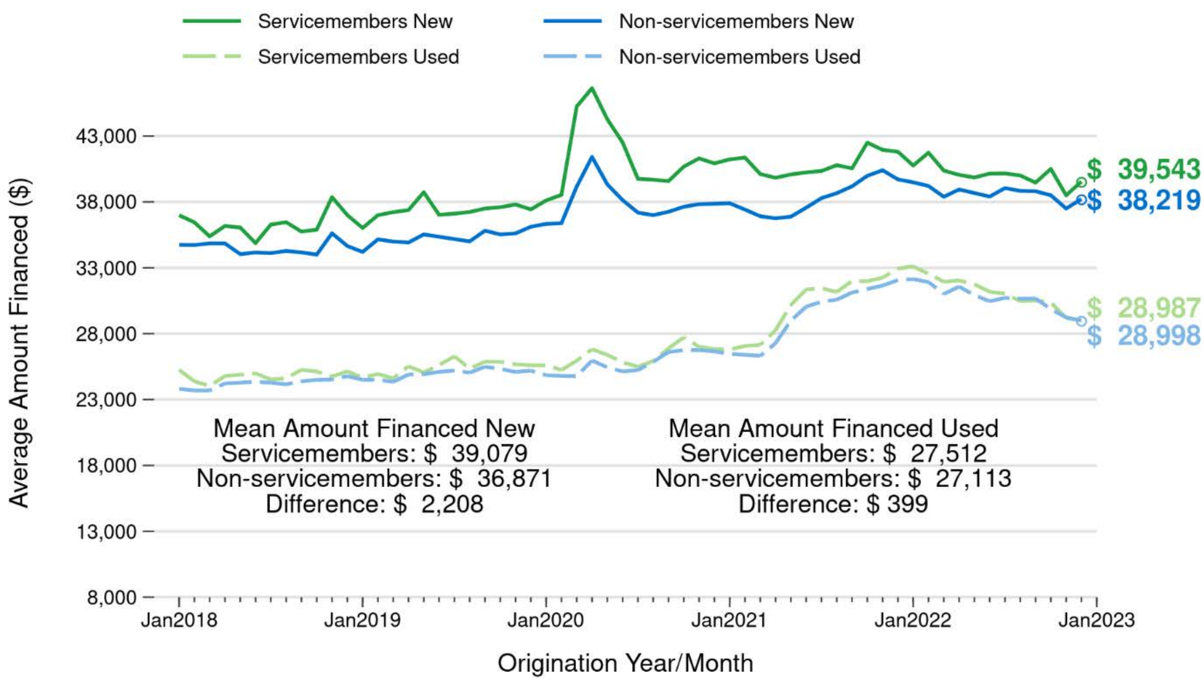
3.1. Loan amounts and vehicle prices

Servicemembers' auto loans had larger principal amounts than non-servicemembers, but vehicle prices for new and used vehicles were similar for servicemembers and non-servicemembers.

Figure 1 shows the average loan amount financed, for both new and used vehicles, among servicemembers and non-servicemembers who originated a loan between January 2018 and December 2022. The horizontal axis measures the year and month of the vehicle purchase and loan origination, and the vertical axis measures the average loan amount financed in dollars, inflation-adjusted to December 2022.

The average loan amounts for new vehicles were consistently higher for servicemembers than non-servicemembers for auto loans originated between 2018 and 2022. The average amount financed was $39,079 for servicemembers and $36,871 for non-servicemembers—a difference of $2,208 (Figure 1). Looking at the pattern over time shows an increase in loan amounts (inflation adjusted) for both servicemembers and non-servicemembers from 2018 to the beginning of 2022, followed by a slight decline in loan amounts to the end of 2022. Coinciding with the pandemic, Figure 1 shows a sharp spike in amounts financed for new vehicles in early 2020 followed by a sharp decline in mid-2020 for both servicemembers and non-servicemembers.

FIGURE 1: AVERAGE AMOUNT FINANCED FOR NEW AND USED VEHICLES, BY SERVICEMEMBER STATUS



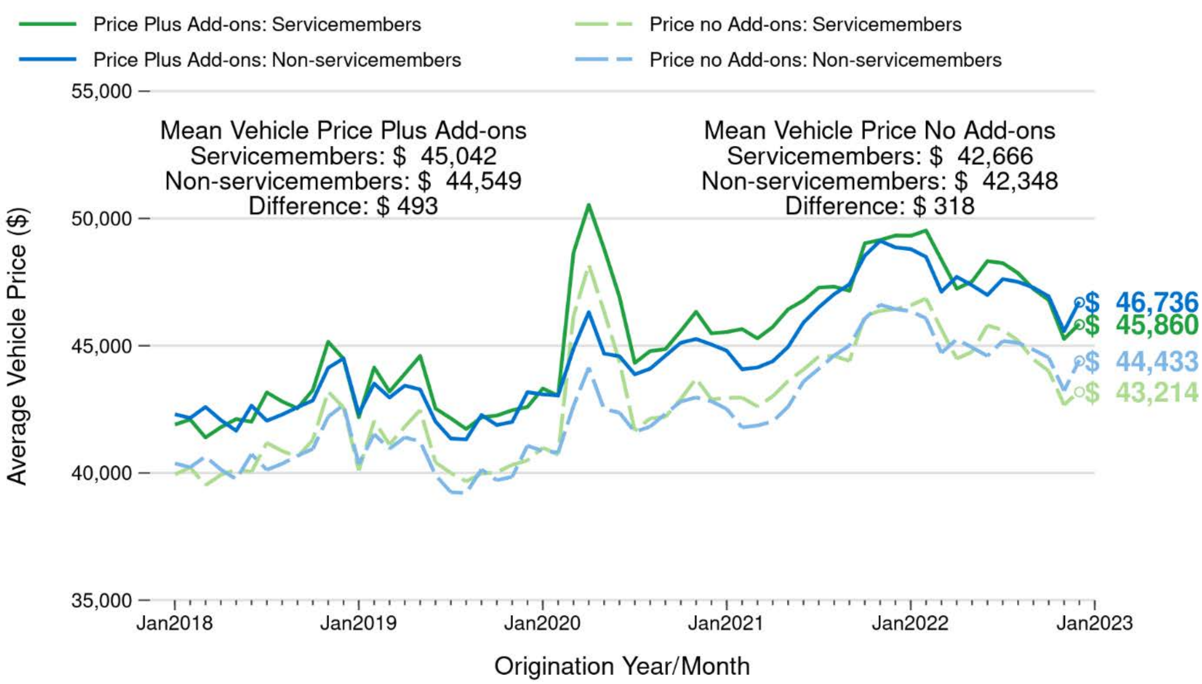
Source: CFPB auto finance data pilot
Note: All values are inflation-adjusted to December 2022 dollars.

Compared with new vehicle auto loan amounts, the average auto loan amounts for used vehicles are more similar for servicemembers and non-servicemembers. Among borrowers who originated loans for used vehicles between 2018 and 2022, the average amount financed was $27,512 for servicemembers and $27,113 for non-servicemembers—a difference of $399. Average amounts financed for used vehicles trended similarly for servicemember and non-servicemember auto loans: they both grew slowly from 2018 to the start of 2021, then increased by roughly $6,000 between January 2021 and January 2022, before declining by about $4,000 by December 2022.

While loan amounts are higher for servicemembers than non-servicemembers, servicemembers purchased vehicles that were similar in price to vehicles purchased by non-servicemembers. Figure 2 shows the average *new* vehicle purchase price, both with and without add-ons, for servicemembers and non-servicemembers who originated a loan between January 2018 and December 2022. The horizontal axis measures the year and month of the vehicle purchase and loan origination, and the vertical axis measures the vehicle purchase price in dollars, inflation-adjusted to December 2022. Similarly, Figure 3 shows the average used vehicle purchase price with and without add-ons.

Servicemembers purchased new and used vehicles similar in price to non-servicemembers, regardless of including or excluding add-ons in the purchase price. Figure 2 shows that among borrowers who originated loans for new vehicles between 2018 and 2022, the average new vehicle purchase price with add-ons was $45,042 for servicemembers and $44,549 for non-servicemembers—a difference of $493. Deducting add-ons reduced the average new vehicle purchase price to $42,666 for servicemembers and $42,348 for non servicemembers, so servicemembers paid $318 more for new vehicles, exclusive of add-ons. One exception is new vehicles purchased in the first half of 2020. During this period, servicemembers purchased new vehicles that were considerably more expensive than new vehicles purchased by non-servicemembers.

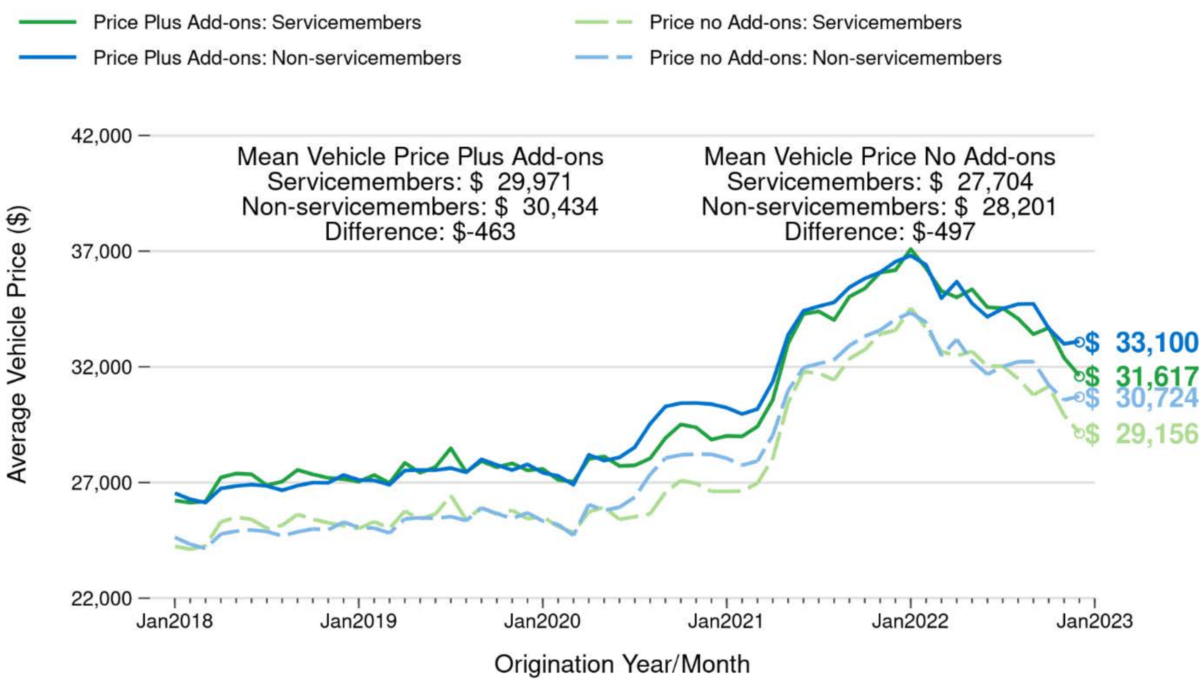
FIGURE 2: AVERAGE VEHICLE PURCHASE PRICE, FOR NEW VEHICLES, WITH AND WITHOUT ADD-ONS, BY SERVICEMEMBER STATUS



Source: CFPB auto finance data pilot
Note: All values are inflation-adjusted to December 2022 dollars.

Turning to the purchase price for used vehicles, we find that servicemembers purchased used vehicles that were slightly lower in price than the used vehicles purchased by non-servicemembers. Among borrowers who originated loans for used vehicles between 2018 and 2022, the average used vehicle purchase price with add-ons was $29,971 for servicemembers and $30,434 for non-servicemembers—a difference of $463. Deducting add-ons reduced the average used vehicle purchase price to $27,704 for servicemembers and $28,201 for non-servicemembers, so servicemembers paid $497 less for used vehicles, exclusive of add-ons. Compared to the price of new vehicles in Figure 2, we do not see a period of time in Figure 3 where servicemembers paid considerably more for used vehicles compared to non-servicemembers. We also see that both groups of consumers for used vehicles faced price increases of approximately $10,000 from January 2020 to January 2022.

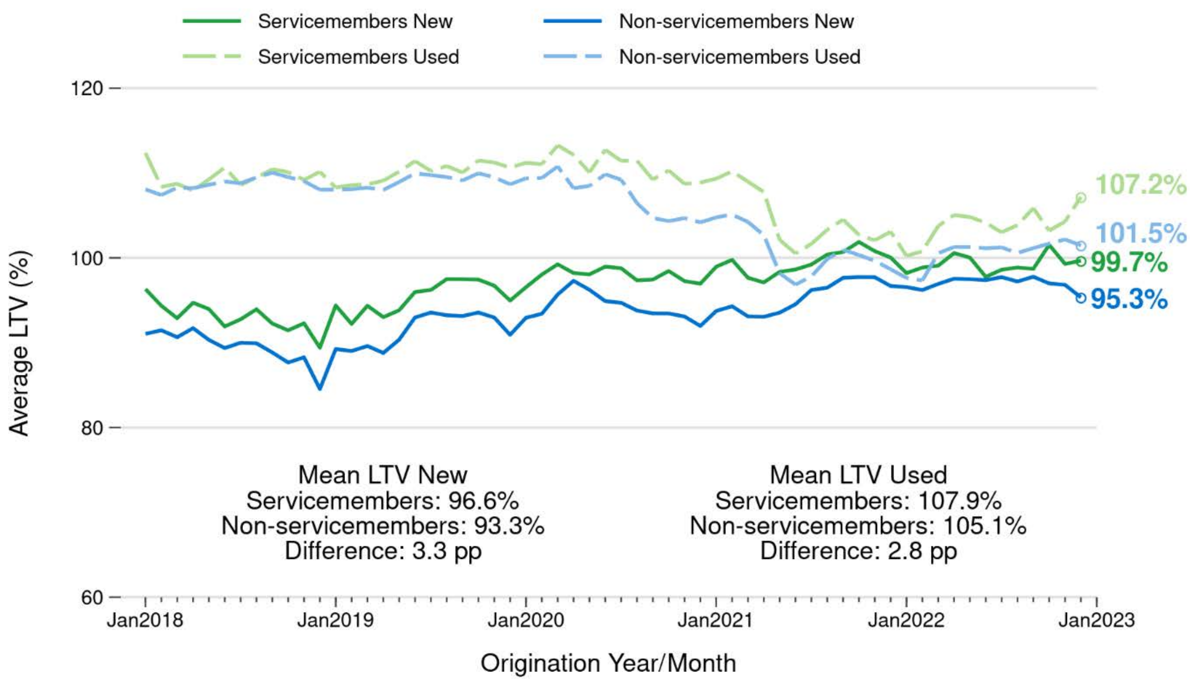
FIGURE 3: AVERAGE VEHICLE PURCHASE PRICE, FOR USED VEHICLES, WITH AND WITHOUT ADD-ONS, BY SERVICEMEMBER STATUS



Source: CFPB auto finance data pilot
Note: All values are inflation-adjusted to December 2022 dollars.

Consistent with higher loan amounts yet similarly priced vehicles among servicemembers compared with non-servicemembers, we find that average loan-to-value (LTV) ratios (loan amounts divided by the vehicle price, then multiplied by 100 and expressed as a percentage) are higher among servicemembers than non-servicemembers. For new vehicle auto loans originated between 2018 and 2022, the average LTV ratio was 96.6 percent for servicemembers and 93.3 percent for non-servicemembers—a difference of 3.3 percentage points (Figure 4). For used vehicle auto loans originated over the same period, the LTV ratio is greater than 100 percent for both servicemembers and non-servicemembers (i.e., the loan amount is greater than the vehicle value). Specifically, the average LTV ratio for used vehicles was 107.9 percent for servicemembers and 105.1 percent for non-servicemembers—a difference of 2.8 percentage points (Figure 4). In December 2022 (the last month for which we have data), the LTV gap between servicemembers and non-servicemembers was wider for both new vehicle (4.4 percentage points) and used vehicles (5.7 percentage points). In the following section, we will discuss the potential role of down payments and negative equity in servicemembers' higher LTV ratios and loan amounts.

FIGURE 4: AVERAGE LOAN-TO-VALUE (LTV) RATIO FOR NEW AND USED VEHICLES, BY SERVICEMEMBER STATUS



Source: CFPB auto finance data pilot

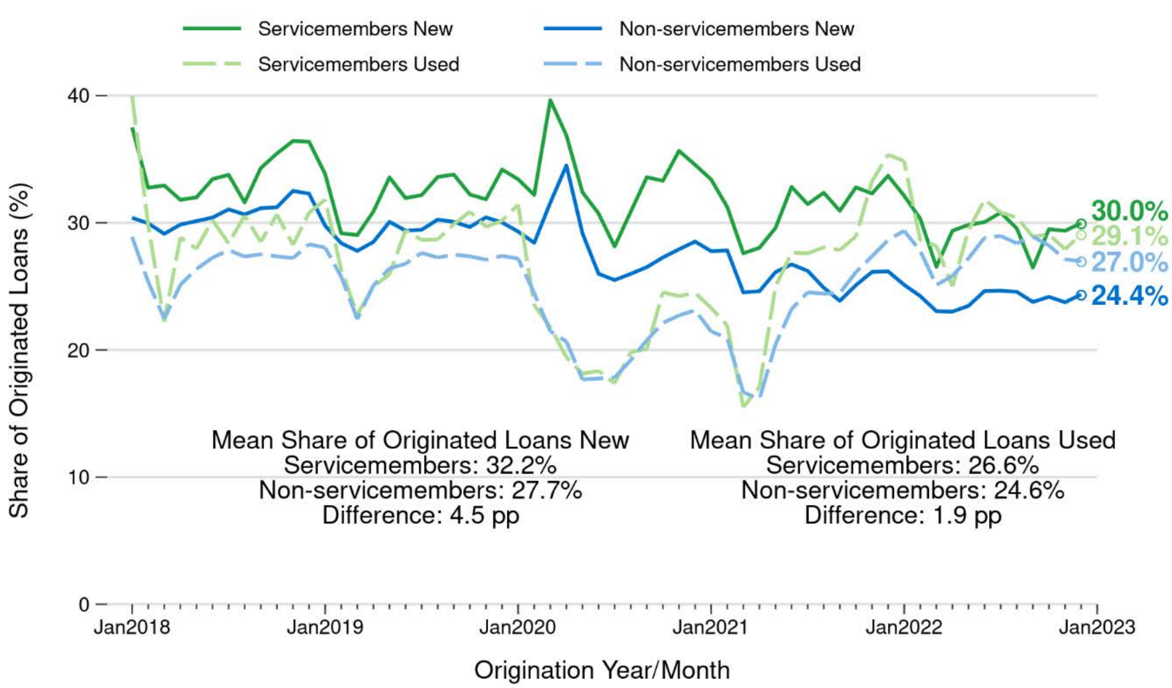
3.2. Down payments and negative equity

Servicemembers were: (1) less likely to make a cash downpayment to purchase their vehicle; and (2) more likely to make a negative-equity trade-in, i.e., trade in a vehicle where the amount owed is greater than the amount received. These findings are consistent with the higher vehicle loan amounts financed by servicemembers and the similar prices of vehicles purchased by both servicemembers and non-servicemembers.

Figure 5 shows the share of loans without a cash down payment included in financing the vehicle, for both new and used vehicles, among servicemembers and non-servicemembers who originated a loan between January 2018 and December 2022. The horizontal axis measures the year and month of the vehicle purchase and loan origination, and the vertical axis measures the share of originated auto loans without a recorded cash-down payment.

Servicemembers were consistently more likely to purchase a new vehicle without a cash down payment. For new vehicle auto loans originated between 2018 and 2022, the average share of loans without a cash-down payment was 32.2 percent for servicemembers and 27.7 percent for non-servicemembers—a difference of 4.5 percentage points (Figure 5). Servicemembers were also more likely than non-servicemembers to purchase a used vehicle without a cash down payment, but to a lesser extent. For used vehicle auto loans originated during the same period, the average share of loans without a cash-down payment was 26.6 percent for servicemembers and 24.6 percent for non-servicemembers, a difference of 1.9 percentage points.

FIGURE 5: SHARE OF LOANS WITHOUT A CASH DOWN PAYMENT INCLUDED IN FINANCING OVER TIME, BY SERVICEMEMBER STATUS AND VEHICLE TYPE

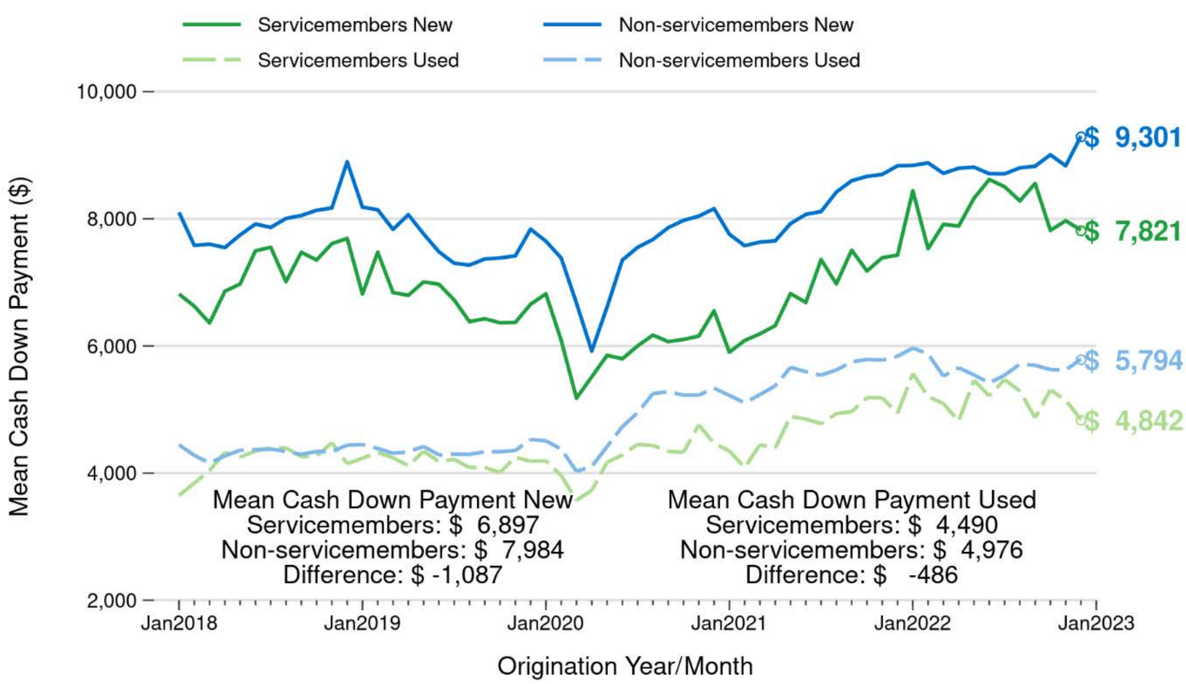


Source: CFPB auto finance data pilot

For the subset of borrowers who made a cash down payment when financing their vehicle purchase, Figure 6 shows the average cash down payment included in financing the vehicle purchase, for both new and used vehicles, among servicemembers and non-servicemembers who originated a loan between January 2018 and December 2022. The horizontal axis measures the year and month of the vehicle purchase and loan origination, and the vertical axis measures average cash down payment amount.

Among borrowers who made a cash down payment, servicemembers made smaller cash down payments than non-servicemembers for new vehicle purchases. For new vehicle auto loans originated between 2018 and 2022, the average cash down payment was lower by $1,087 for servicemembers ($6,897) than for non-servicemembers ($7,984; Figure 6). Servicemembers made smaller cash down payments than non-servicemembers for used vehicle purchases as well, although the difference for used vehicles was smaller than the difference for new vehicles. For used vehicle auto loans originated during the same period, the average cash-down payment for servicemembers was $4,490 compared to $4,976 for non-servicemembers—or $486 lower for servicemembers.

FIGURE 6: AVERAGE CASH DOWN PAYMENT INCLUDED IN FINANCING OVER TIME, FOR BORROWERS WITH A CASH DOWN PAYMENT, BY SERVICEMEMBER STATUS AND VEHICLE TYPE



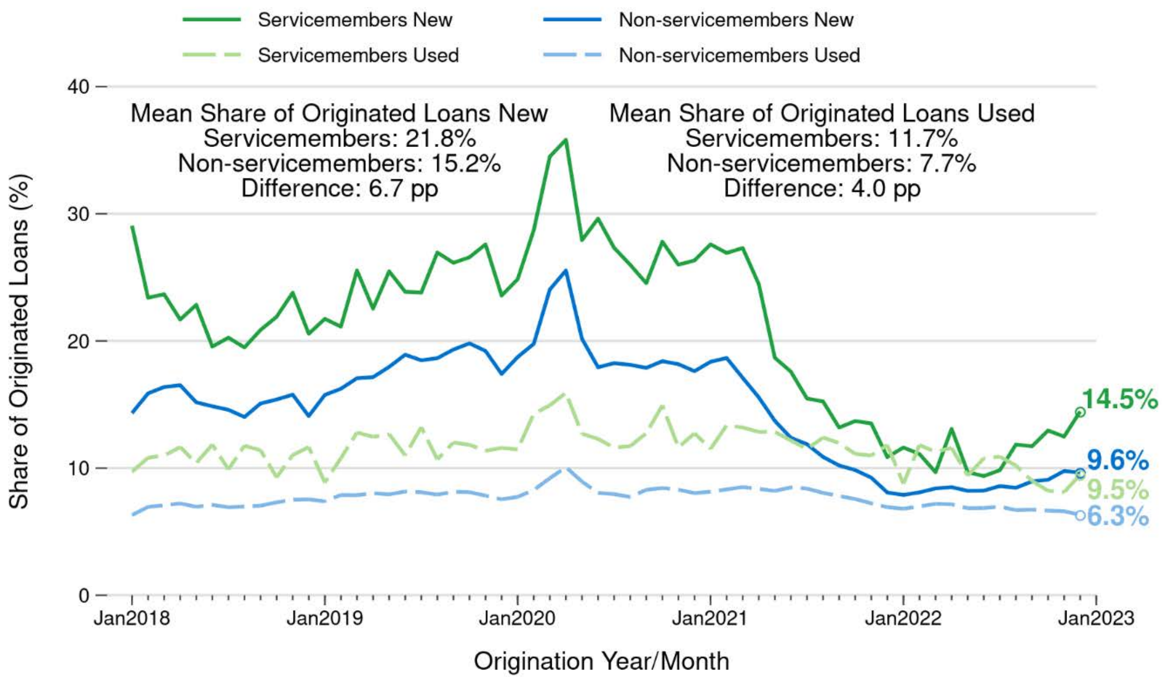
Source: CFPB auto finance data pilot

Note: All values are inflation-adjusted to December 2022 dollars.

Figure 7 shows the share of loans with a negative equity trade-in, for both new and used vehicles, among servicemembers and non-servicemembers who originated a loan between January 2018 and December 2022. A negative-equity trade-in occurs when the consumer trades in a vehicle where the amount remaining on the loan is greater than the amount the consumer receives from the dealer for the trade-in, and the consumer rolls the remaining unpaid balance into the new loan. The horizontal axis measures the year and month of the vehicle purchase and loan origination, and the vertical axis measures the share with a negative equity trade-in.

Between 2018 and 2022 for both new and used vehicles, auto loans with negative equity included in financing were more likely among servicemembers than non-servicemembers (Figure 7). Between 2018 and the start of 2021, negative equity was more likely to be included in new vehicle financing versus used vehicle financing, for both servicemembers and non-servicemembers. After 2021, the share of originated auto loans with negative equity declined steeply for new vehicle loans but declined only slightly for used vehicle loans. For both new and used vehicles, servicemembers were more likely to have negative equity included in their loan at the end of 2022. For new vehicle purchases in December 2022, for example, 14.5 percent of servicemembers originated an auto loan with negative equity, compared with 9.6 percent of non-servicemembers, a difference of 4.9 percentage points.

FIGURE 7: SHARE OF LOANS WITH PRIOR LOAN BALANCE (NEGATIVE EQUITY) INCLUDED IN FINANCING OVER TIME, BY SERVICEMEMBER STATUS AND VEHICLE TYPE

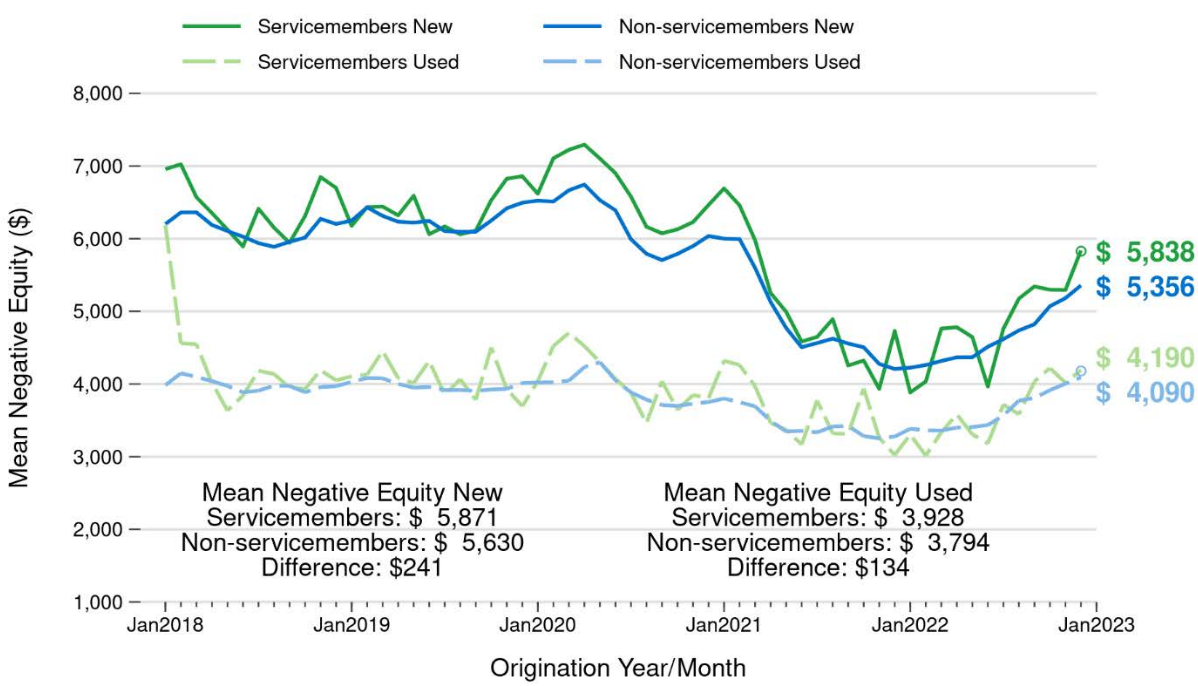


Source: CFPB auto finance data pilot

Among auto loans with negative equity included in financing, the average amount of negative equity over the 2018 to 2022 time period is slightly higher for servicemembers than for non-servicemembers (for both new and used vehicle purchases). Figure 8 shows the average negative equity amount included in vehicle financing, for both new and used vehicles, among servicemembers and non-servicemembers who originated an auto loan with negative equity between January 2018 and December 2022. The horizontal axis measures the year and month of the vehicle purchase and loan origination, and the vertical axis measures the average negative equity amount.

For borrowers who purchased new vehicles and included negative equity in their financing, the average amount of negative equity was $5,871 for servicemembers and $5,630 for non-servicemembers, or higher by an average of $241 for servicemembers (Figure 8). Negative equity amounts for new vehicles, which trended similarly for servicemembers and non-servicemembers, were higher in 2018 to the start of 2021, then declined during 2021 to the start of 2022 before rising slightly during 2022.

FIGURE 8: AVERAGE NEGATIVE EQUITY INCLUDED IN VEHICLE FINANCING, BY SERVICEMEMBER STATUS AND VEHICLE TYPE



Source: CFPB auto finance data pilot

Note: All values are inflation-adjusted to December 2022 dollars.

Throughout the January 2018-December 2022 period, negative equity amounts were lower for used vehicle financing than for new vehicle financing, for both servicemembers and non-servicemembers. For used vehicle auto loans including negative equity, the average amount of negative equity was $3,928 for servicemembers and $3,794 for non-servicemembers, or higher by an average of $134 for servicemembers (Figure 8). Negative equity amounts for used vehicle loans were relatively flat from 2018 to 2020, followed by a slight decline in 2021 that reversed in 2022.

3.3. Add-on products

Add-on products, such as extended warranties and guaranteed asset protection (GAP) products,[32] are an important element of borrowers' vehicle costs. We have shown above in Figures 2 and 3 that add-on products can increase the price of a vehicle by thousands of dollars. In this section, we first show that the average spending on add-ons was higher for servicemembers than non-servicemembers. We also found that almost three-quarters of servicemembers purchased an add-on product with their vehicle, and that extended warranties, service plans, and pre-paid maintenance plans, henceforth grouped together and referred as "warranty/service/maintenance plans,"[33] were both the most common category of purchased add-ons and the primary component of add-on costs among servicemembers. In addition, the likelihood of servicemembers purchasing GAP products greatly increased in 2020 after a change in Department of Defense guidance regarding the Military Lending Act.[34]

The majority of servicemembers and non-servicemembers who originated a loan between January 2018 and December 2022 purchased an add-on product, with a slightly higher share of servicemembers doing so, 72.9 percent and 71.8 percent, respectively (Table 1). Looking at new vehicle purchases, servicemembers were again slightly more likely than non-servicemembers to purchase add-on products, 71.2 versus 68.9 percent, respectively (a difference of 2.3 percentage points). Among used vehicle purchases, a higher, but near identical share of servicemembers and non-servicemembers purchased add-on products (75.0 percent and 75.4 percent, respectively).

TABLE 1: PERCENT OF SERVICEMEMBER AND NON-SERVICEMEMBER LOANS WITH AN ADD-ON PRODUCT PURCHASE (2018-2022), BY SERVICEMEMBER STATUS AND VEHICLE TYPE

Vehicle type	Servicemembers	Non-servicemembers
Overall	72.9%	71.8%
New vehicles	71.2%	68.9%
Used vehicles	75.0%	75.4%

Source: CFPB auto finance data pilot

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32 GAP products cover the difference between what a borrower owes on a vehicle loan and the vehicle's value in the event of a total loss due to an accident or theft.

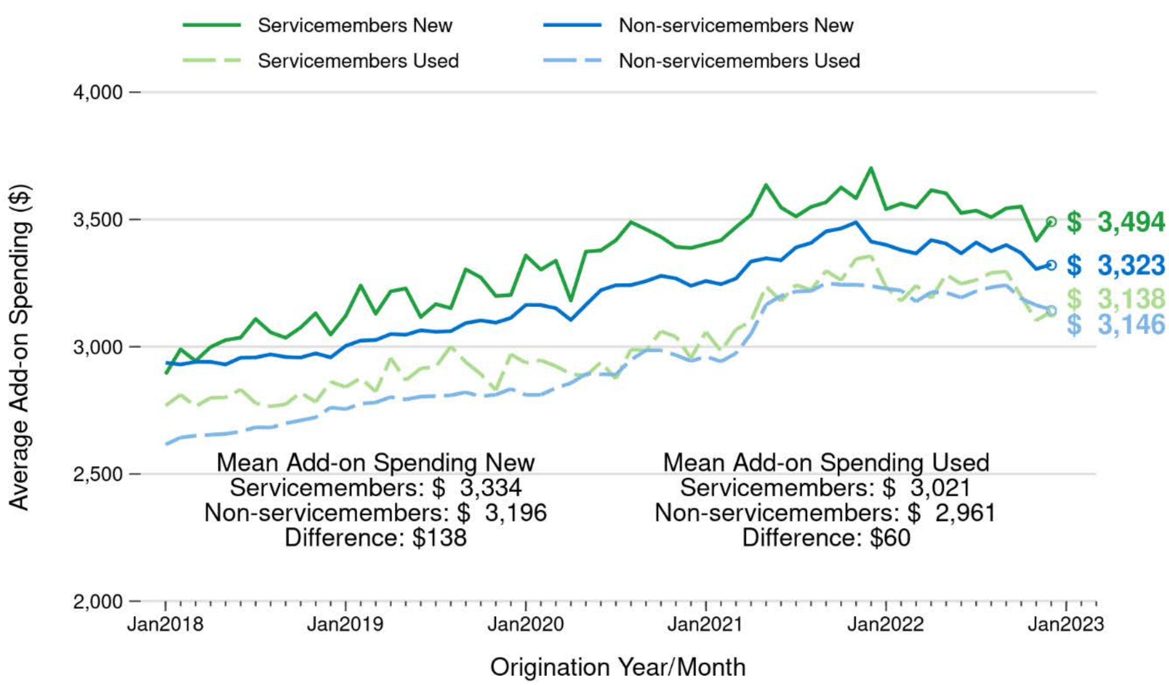
33 Most of the lenders who participated in the auto finance data pilot did not separately track the different types of products included in the extended warranties/vehicle service plans/maintenance plans grouping. Lenders generally treated all of these products as one category and provided data on the costs of all of them combined.

34 In 2020, the Department of Defense (DoD) withdrew previous guidance that had stated that if a loan includes financing for GAP products, it will lose its exemption under the MLA.

Turning to add-on product spending, Figure 9 shows the average dollar amount spent on add-on products, for both new and used vehicles, among the subset of servicemembers and non-servicemembers who purchased an add-on product and originated a loan between January 2018 and December 2022.[35] The horizontal axis measures the year and month of the vehicle purchase and loan origination, and the vertical axis measures the average dollar amount spent on add-ons, inflation-adjusted to December 2022.

For new vehicle purchases that included an add-on product, the average spending on add-on products was higher for servicemembers than non-servicemembers for auto loans originated between 2018 and 2022. The average spending on add-on products was $3,334 for servicemembers and $3,196 for non-servicemembers, a difference of $138 (Figure 9). Servicemembers' spending on add-on products for their new vehicles was consistently higher than non-servicemembers' add-on spending during this period.

FIGURE 9: AVERAGE SPENDING ON ADD-ON PRODUCTS FROM 2018 TO 2022, AMONG BORROWERS THAT PURCHASED AT LEAST ONE ADD-ON PRODUCT, BY SERVICEMEMBER STATUS



Source: CFPB auto finance data pilot

Note: All values are inflation-adjusted to December 2022 dollars.

[35] Figure 9 only includes the 72.9 percent of servicemembers and 71.8 percent of non-servicemembers who purchased at least one add-on product.

For used vehicle purchases that included an add-on product, the average spending on add-ons was $3,021 for servicemembers and $2,961 for non-servicemembers, higher by an average of $60 for servicemembers. The pattern over time is somewhat different for used versus new vehicles. Add-on product spending for used vehicles was higher for servicemembers than non-servicemembers from 2018 to early 2020, but the spending amounts track one another closely from mid-2020 to the end of 2022.

Figure 10 shows how add-on product purchases changed over time for servicemembers. This figure presents the share of auto loans with at least one add-on product purchase, among servicemembers who originated an auto loan for a new or used vehicle between January 2018 and December 2022.[36] The horizontal axis measures the year and month of the vehicle purchase and loan origination, and the vertical axis measures the share of loans (expressed as a percentage) with any add-on product purchase, as well as by three categories of add-on products: warranty/service/maintenance plans, GAP products, and other add-on products.[37]

From January 2018 to December 2022, an average of 73 percent of servicemembers who originated an auto loan purchased an add-on product. A slightly higher share – 77 percent – purchased an add-on product in December 2022. The most popular category of add-on products were warranty/service/maintenance plans, with 60 percent of servicemember auto loans including one product in this category. The largest change in add-on products over time occurred with GAP products. GAP product purchases were under 10 percent of all servicemember auto loans originated for much of 2018 and all of 2019. But after the first quarter of 2020, GAP purchases rose to over 40 percent of servicemember auto loans originated and remained there until the end of 2022. The jump in GAP product purchases among servicemembers after 2020 came after a change in a Department of Defense interpretive rule regarding GAP products and the Military Lending Act. The share of servicemember auto loans with other add-on products gradually rose from 18.9 percent in January 2018 to 28.8 percent in December 2022 (an increase of 52.3 percent).

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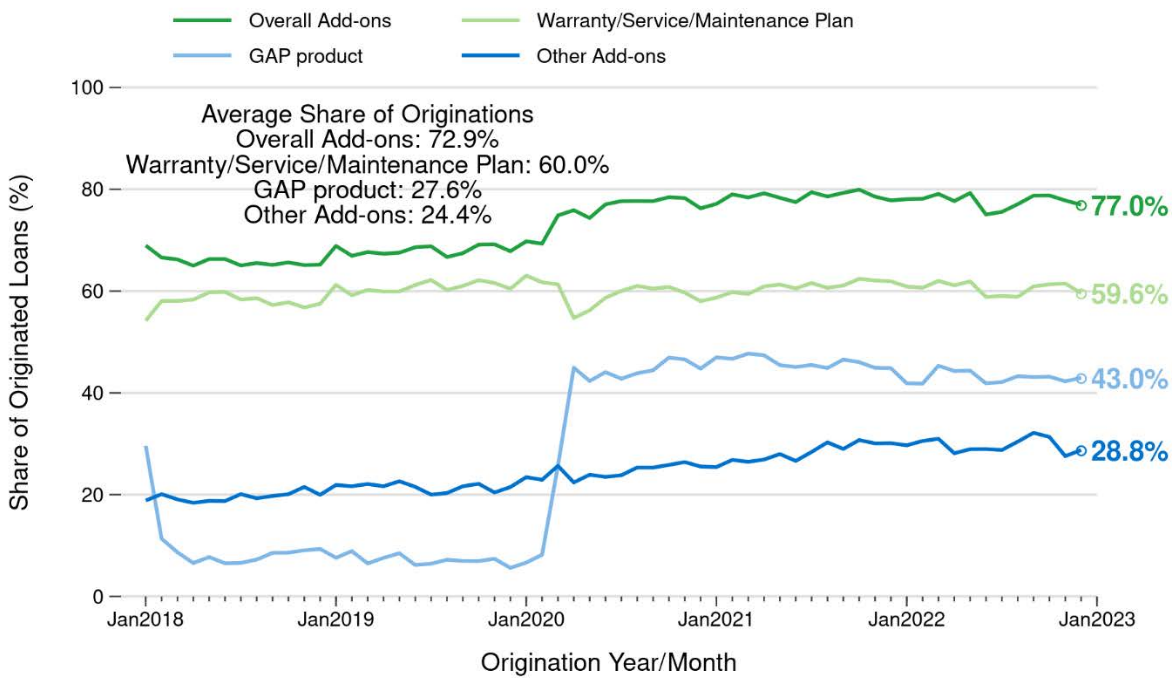
[36] Figure 10 only includes servicemember borrowers because the average shares and trends of non-servicemembers purchasing vehicle add-on products were similar to servicemembers when broken out by category, except for GAP products as discussed further in this section. See Figure 20 in the Appendix for the companion figure for non-servicemembers.

[37] Other add-on products include (but are not limited to) wheel and tire protection, key fob replacement, paint and/or fabric protection, auto club memberships, and electronic component protection products.

FIGURE 10: SHARE OF LOANS WITH AT LEAST ONE ADD-ON PER CATEGORY FOR SERVICEMEMBERS



Source: CFPB auto finance data pilot

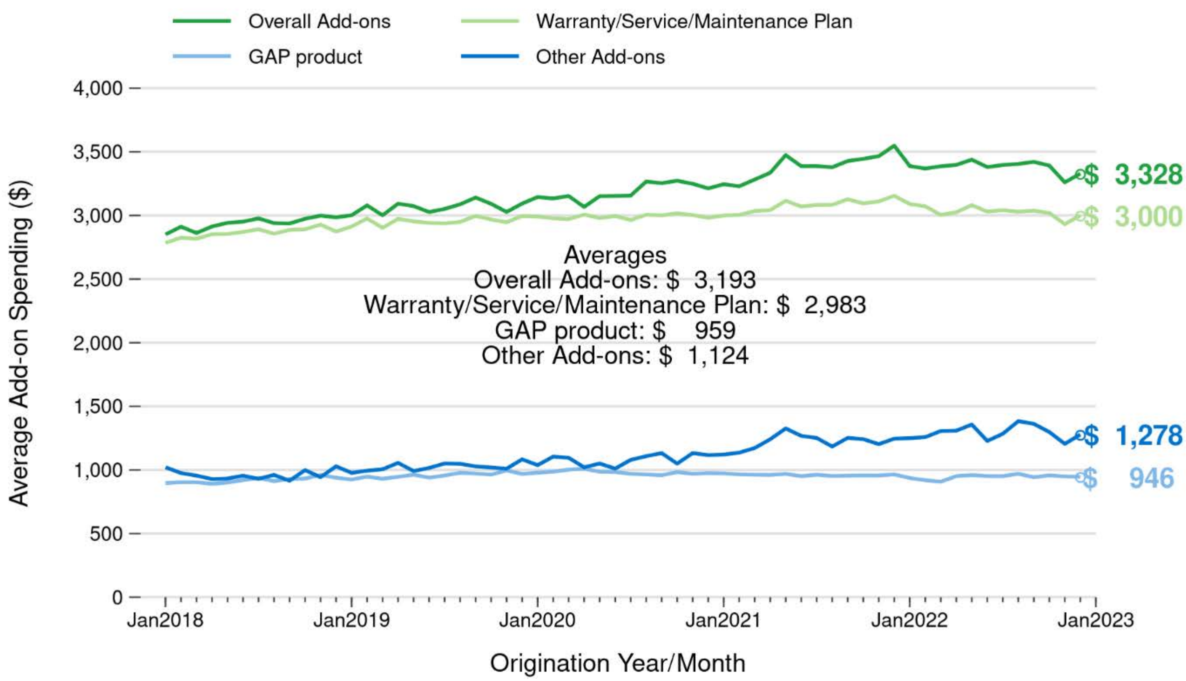
Figure 11 focuses again on servicemembers and shows the average dollar amount spent on add-on products, among servicemembers who originated an auto loan and purchased at least one add-on product between January 2018 and December 2022.[38] Like Figure 10, add-on product purchases for both new and used vehicles are included in this figure. The horizontal axis measures the year and month of the vehicle purchase and loan origination, and the vertical axis measures the average dollar amount spent on add-ons overall, as well as the average amount spent on each add-on product category (warranty/service/maintenance plans, GAP products, and other add-ons), all inflation-adjusted to December 2022.

Among servicemembers who purchased at least one add-on product, their average overall add-on cost was $3,193 (Figure 11). Average spending on add-on products rose from January 2018 to December 2022, when servicemembers spent $3,328. The highest category of add-on spending was for warranty/service/maintenance plans, with an average cost of $2,983. In inflation adjusted dollars, the average cost of warranty/service/maintenance plans increased from approximately $2,800 in January 2018 to $3,000 in December 2022, or by 7 percent. The average cost of GAP products during this period was $952, increasing from $897 in January

[38] Figure 11 only includes servicemember borrowers who purchased at least one add-on product because average add-on costs were similar for both servicemembers and non-servicemembers when broken out by category. See Figure 21 in the Appendix for the companion figure for non-servicemembers.

2018 to $946 in December 2022 (a 5.5 percent increase). Lastly, the average cost for other add-on products was $1,115 and increased from approximately $1,000 in January 2018 to $1,278 in December 2022 (a 28 percent increase).

FIGURE 11: AVERAGE SPENDING ON ADD-ON PRODUCTS BY CATEGORY OVER TIME, AMONG SERVICEMEMBER AUTO LOANS THAT INCLUDED AT LEAST ONE ADD-ON PRODUCT



Source: CFPB auto finance data pilot

Note: All values are inflation-adjusted to December 2022 dollars.

3.4. Interest rates, loan terms, and monthly payments

In this section we present servicemembers' auto loan characteristics. Servicemembers' auto loans had higher APRs and slightly longer loan terms, on average, compared with non-servicemembers. Servicemembers' lower credit scores do not fully account for differences in servicemembers' and non-servicemembers' APRs. We also find that servicemembers had higher monthly auto loan payments and higher payment-to-income ratios than non-servicemembers.

Figure 12 shows the average auto loan APR, for both new and used vehicles, among servicemembers and non-servicemembers who originated a loan between January 2018 and

December 2022. The horizontal axis measures the year and month of the vehicle purchase and loan origination, and the vertical axis measures the average APR.

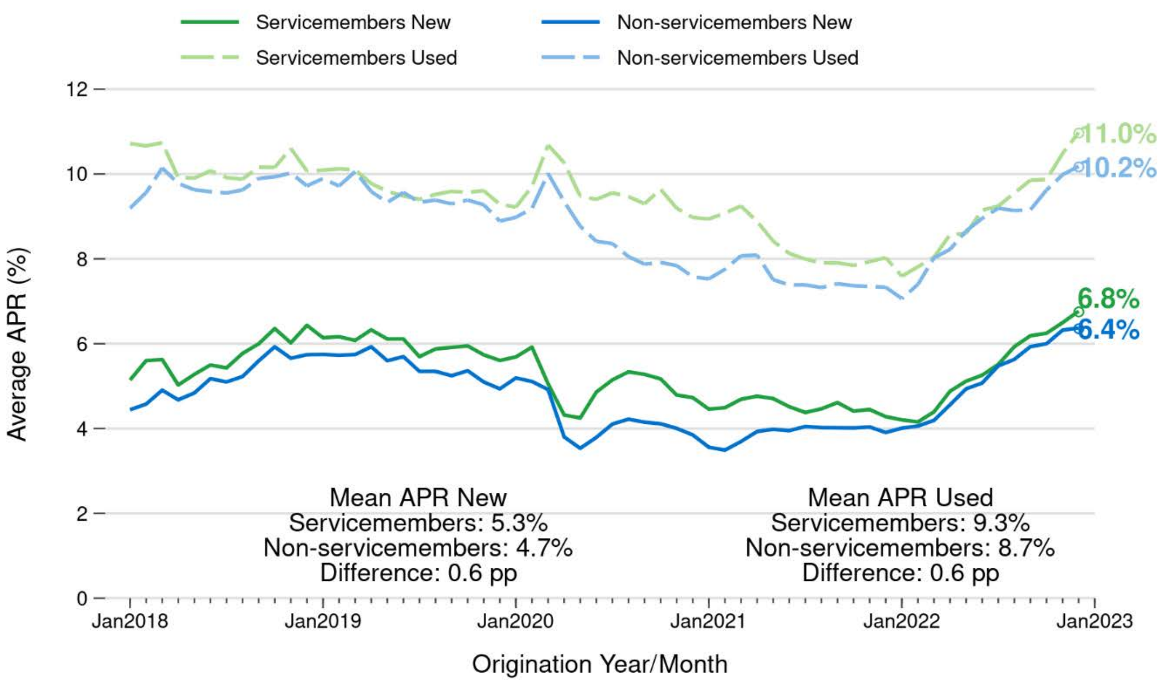
The average APRs for used vehicle auto loans are higher than for new vehicles, for both servicemembers and non-servicemembers across the 2018 to 2022 period. The average APRs for used vehicle auto loans are in the 7.1 to 10.2 percent range, while the average APRs for new vehicle auto loans are in the 3.5 to 6.4 percent range (Figure 12), a difference of more than 3 percentage points (300 basis points) in each month. The APRs trend similarly for servicemembers and non-servicemembers, as well as for new and used vehicles, with a drop in APRs in early 2020 and then a sharp increase during 2022. This follows the general trend in interest rates over time.[39]

A comparison of servicemember and non-servicemember loans shows that the average APRs for new- and used-vehicle auto loans were generally higher for servicemembers than non-servicemembers throughout the 2018 to 2022 period. Across these five years, the average APR of servicemembers was 60 basis points (0.60 percentage points) higher than the average APR of non-servicemembers for both new and used vehicles. For new vehicle auto loans originated between 2018 and 2022 the average APR was 5.3 percent for servicemembers and 4.7 percent for non-servicemembers (Figure 12). For used vehicle auto loans, the numbers are 9.3 percent and 8.7 percent, respectively.

The gap between servicemembers and non-servicemembers was wider during the period of lower interest rates in 2020 and 2021. In the last month of observed data – December 2022 – the average APR for servicemembers versus non-servicemembers was 80 basis points higher for new vehicle purchases and 40 basis points higher for used vehicle purchases.

[39] For one example of auto loan interest rates over time, see Board of Governors of the Federal Reserve System (US), Finance Rate on Consumer Installment Loans at Commercial Banks, New Autos 60 Month Loan [RIFLPBCIANM60NM], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/RIFLPBCIANM60NM, December 17, 2024.

FIGURE 12: AVERAGE APR FOR NEW AND USED VEHICLES, BY SERVICEMEMBER STATUS



Source: CFPB auto finance data pilot

As discussed earlier, as a group, servicemembers had lower credit scores than non-servicemembers, and this credit score difference could help explain some but not all of the observed gap in APRs.[40] Analyses that account for credit scores suggest that roughly 45 percent of the difference in the APRs of servicemembers and non-servicemembers is explained by credit scores.[41] Specifically, taking account of consumers' credit scores, we find that the average APR of servicemembers was higher than the average APR of non-servicemembers by (1) 35 basis points for new vehicle loans and (2) 28 basis points higher for used vehicle loans.[42]

We also find that average loan terms were slightly longer for servicemembers than non-servicemembers, for both new and used vehicles, during the 2018 to 2022 period. Figure 13 shows the average loan term in months for new and used vehicle loans by servicemember status. The horizontal axis measures the year and month of the loan origination, and the vertical axis measures the average loan term in months. For new vehicle loans, the average loan term was

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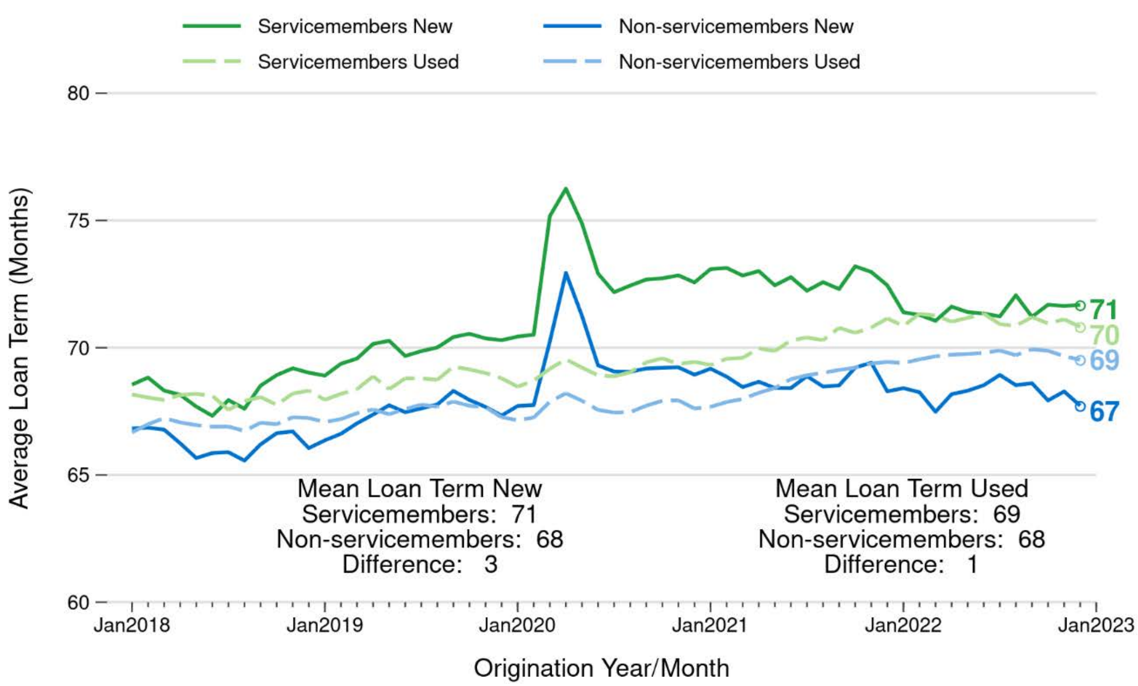
[40] Lower credit scores signal greater credit risk; thus, consumers with lower credit scores are generally offered loans with higher interest rates. Servicemembers generally purchase cars starting at a younger age so have a more limited credit history; this could help explain the lower credit scores of servicemembers than non-servicemembers.

[41] We estimate regression models that control for consumers' servicemember status and credit score group (from subprime to superprime). Additional analyses that include year-by-month fixed effects to account for underlying changes in interest rates over time produce similar findings.

[42] Accounting for differences in income in addition to credit score did not affect the estimated differences.

three months longer for servicemembers than non-servicemembers – 71 months for servicemembers versus 68 months for non-servicemembers. For used vehicle loans, the average loan term was one month longer for servicemembers – 69 months for servicemembers versus 68 months for non-servicemembers.

FIGURE 13: AVERAGE LOAN TERM IN MONTHS FOR NEW AND USED VEHICLES, BY SERVICEMEMBER STATUS



Source: CFPB auto finance data pilot

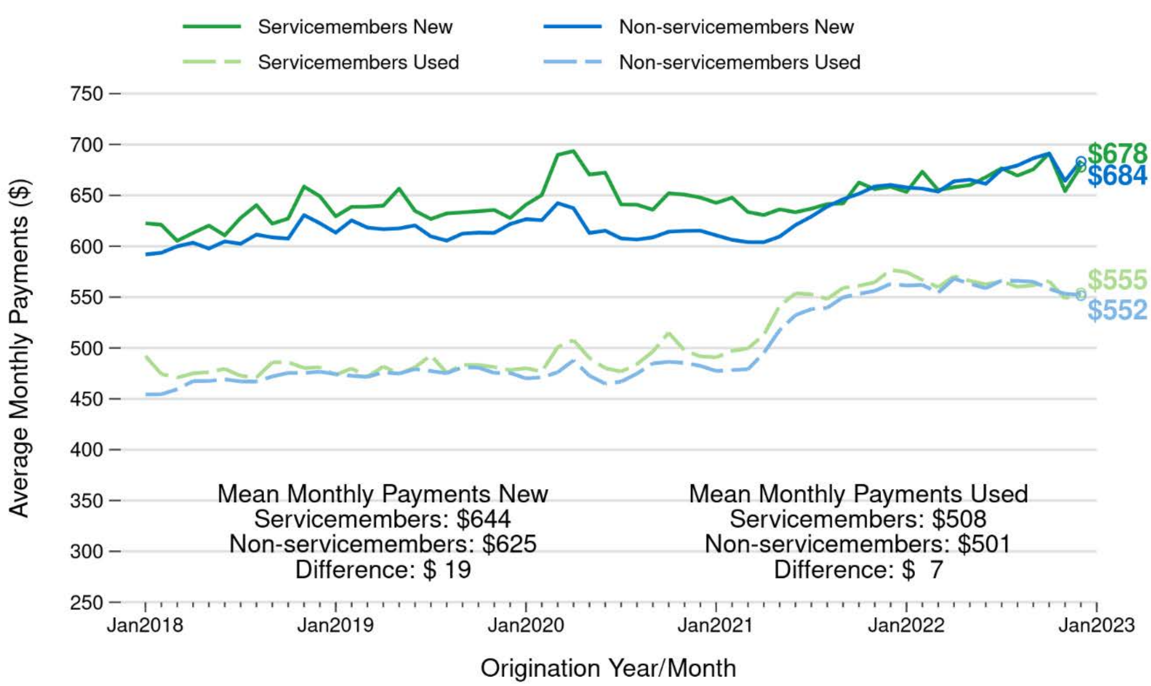
We also find that average monthly payments were generally higher for servicemembers than non-servicemembers for new and used vehicle auto loans originated between 2018 and 2022. The monthly payment for an auto loan is a function of the amount financed, the APR, and loan term. Larger loan amounts and higher APRs among servicemembers increased the monthly payment, while servicemembers' longer loan terms decreased it. Figure 14 shows the average monthly payments by servicemember status and new/used vehicle status. The horizontal axis measures the year and month of the vehicle purchase and loan origination, and the vertical axis measures the average monthly payment in dollars, inflation-adjusted to December 2022.

The average monthly payment for new vehicles was $644 for servicemembers and $625 for non-servicemembers, a difference of $19 (Figure 14). For used vehicles, the average monthly payment was $508 for servicemembers and $501 for non-servicemembers, a difference of $7. These monthly payment differences are small, but they add up over the life of the loan. For example, the additional $19 per month over the average scheduled life of a new vehicle loan of

68 months totals $1,292.[43] Moreover, on average, servicemembers make three additional payments of $644, or $1,932 total.

Looking over time, average monthly payments for servicemembers and non-servicemembers for used and new vehicles generally trended upward from 2018 to 2022. For new vehicle auto loans, servicemembers had higher monthly payments than non-servicemembers between 2018 and mid-2021, with the gap closing by the end of 2022. This is consistent with the relatively smaller gaps between servicemembers and non-servicemembers for new vehicle loans in the amounts financed, negative equity trade-ins, and APRs from mid-2021 through 2022 than those originated earlier (2018 to mid-2021). For used vehicle auto loans, the largest gap in average monthly payments was from January 2020 through December 2021; this primarily coincides with higher average APRs of servicemembers versus non-servicemembers during this time period.

FIGURE 14: AVERAGE MONTHLY PAYMENT, BY SERVICEMEMBER STATUS



Source: CFPB auto finance data pilot

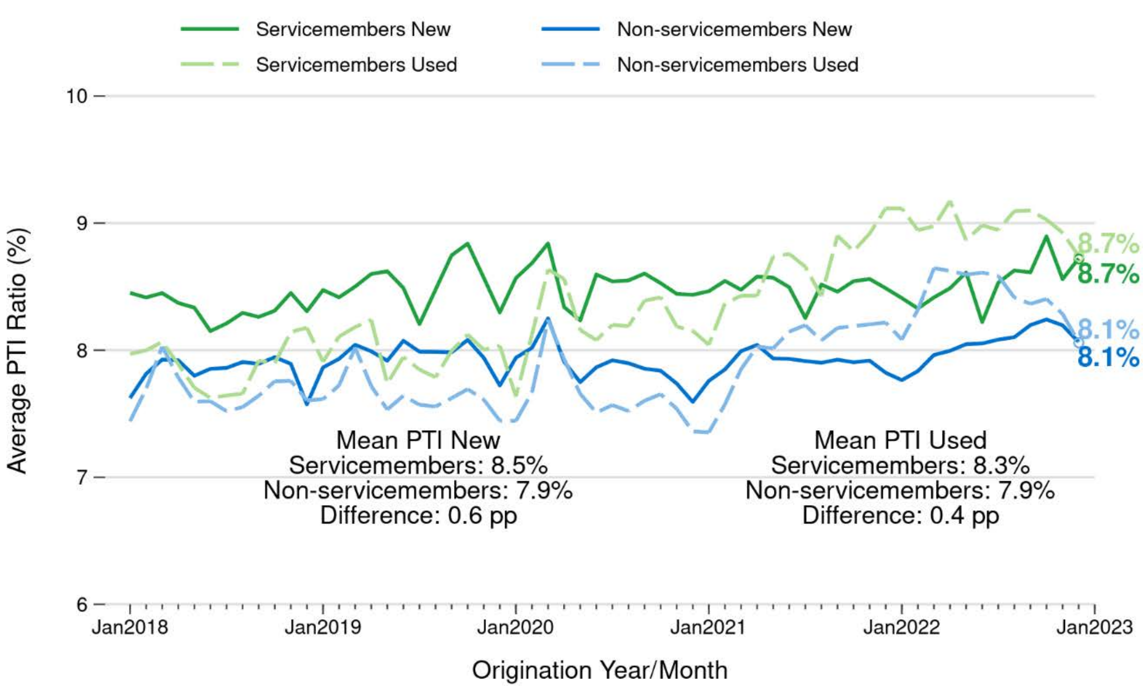
Note: All values are inflation-adjusted to December 2022 dollars.

[43] In this calculation we use the average loan term of non-servicemembers (68 months), as it is the number of months that servicemembers pay an average of $19 more than non-servicemembers.

Another measure that demonstrates the greater financial burden of auto loans on servicemembers versus non-servicemembers is the payment-to-income (PTI) ratio. The payment-to-income ratio is calculated by dividing the monthly payment for the auto loan by the borrower's monthly income (or combined monthly income for joint borrowers), then multiplying the result by 100 to express the value as a percentage. For example, if the PTI ratio is 10 percent, then the monthly auto loan payment is 10 percent of the borrowers' household income.

Figure 15 shows the average PTI ratios by servicemember status for new and used vehicle loans. The horizontal axis measures the year and month of the vehicle purchase and loan origination, and the vertical axis measures the average PTI ratio as a percentage. The average PTI ratio was slightly higher for servicemembers than non-servicemembers, for both new and used vehicle auto loans. On average, the PTI ratio for servicemembers' new auto loans was 8.5 percent, compared with 7.9 percent for non-servicemembers, a difference of 0.6 percentage points. For used auto loans, the PTI ratio for servicemembers was 8.3 percent, compared with 7.9 percent for non-servicemembers, a difference of 0.4 percentage points.

FIGURE 15: AVERAGE PAYMENT-TO-INCOME (PTI) RATIO FOR NEW AND USED VEHICLE LOANS, BY SERVICEMEMBER STATUS



Source: CFPB auto finance data pilot

The PTI ratios for new vehicle auto loans were relatively constant throughout the 2018 to 2022 period for both servicemembers and non-servicemembers. However, the PTI ratios for used vehicle auto loans were higher in December 2022 than they were in January 2018. The higher

PTI ratios for servicemembers' auto loans can be explained by servicemembers' higher average monthly auto loan payments (see Figure 14), as well as their lower average household incomes (see Table 6 in Appendix A), compared with non-servicemembers.

3.5. Repossessions and modifications

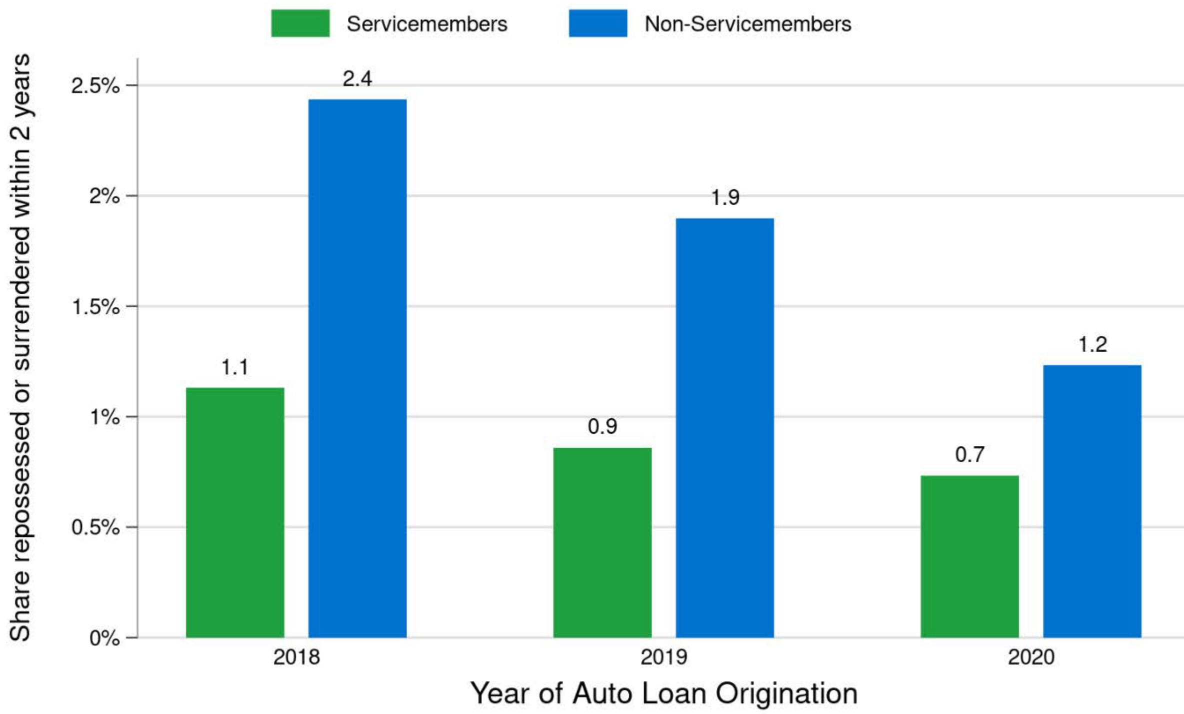
This section presents information about vehicle repossessions and auto loan modifications, both of which occur after loan origination. We find that servicemembers were less likely to have their vehicle repossessed compared to non-servicemembers over the 2018 to 2022 period. We also find that servicemembers received vehicle loan modifications at slightly lower rates compared to non-servicemembers. Servicemembers and non-servicemembers who had their vehicle repossessed or had a loan modification had worse loan characteristics, including higher APRs, PTI ratios, and LTV ratios.

A vehicle repossession occurs when the lender takes steps to recover the vehicle after the borrower falls behind on payment or otherwise breaches their auto loan agreement. A voluntary surrender is a type of repossession when consumers choose to give up their vehicle to their lender after falling behind on their payments or being notified that their vehicle is subject to repossession. In the findings below, we combine completed repossessions with voluntary surrenders to focus on how likely servicemembers lose their vehicle due to financial issues compared to non-servicemembers.

Focusing on vehicles with a loan that was originated in 2018 to 2020, Figure 16 shows the share of these vehicles that had a completed repossession or were voluntarily surrendered within two years (24 months) of the auto loan origination date.[44] In each origination year, servicemembers were less likely to have their vehicle repossessed or voluntarily surrender their vehicle, compared with non-servicemembers. For servicemembers, the repossession/surrender rate was 1.1 percent of originations in 2018, then decreased to 0.9 percent in 2019 and 0.7 percent in 2020. For non-servicemembers, the repossession/surrender rate was 2.4 percent in 2018, then decreased to 1.9 percent in 2019 and 1.2 percent in 2020. The lower rate of repossessions among servicemembers seen in Figure 16 may relate to legal protections at the federal and state level that regulate repossession of vehicles and other personal property, as mentioned above in Section 1.3.

[44] Focusing on loans originated in 2018 to 2020 allows us to see follow-up loan activity for two years.

FIGURE 16: SHARE OF AUTO LOANS WITH A COMPLETED REPOSSESSION OR VOLUNTARY SURRENDER WITHIN TWO YEARS OF ORIGINATION, BY SERVICEMEMBER STATUS AND LOAN ORIGINATION YEAR



Source: CFPB auto finance data pilot

We explored whether loan characteristics at origination are related to vehicle repossessions and surrenders. For both servicemembers and non-servicemembers, average APRs, PTI ratios, and LTV ratios were higher for loans with repossessed and surrendered vehicles (Table 2). We see higher PTI and LTV ratios for repossessed and surrendered vehicles even though these vehicles had lower purchase prices and lower loan amounts, on average, than vehicles that were not repossessed or surrendered. The higher APR, PTI ratio, and LTV ratio suggest greater lending risk among borrowers with repossessed and surrendered vehicles, regardless of servicemember status. Indeed, our analysis of borrower characteristics shows lower credit scores and incomes among those with a repossessed or surrendered vehicle, among both servicemembers and non-servicemembers. Conditional on vehicle repossession/surrender status, servicemembers and non-servicemembers had similar loan and borrower characteristics.

TABLE 2: LOAN AND BORROWER CHARACTERISTICS: VEHICLES REPOSSESSED OR SURRENDERED WITHIN 2 YEARS OF LOAN ORIGINATION (2018-2020), BY SERVICEMEMBER STATUS

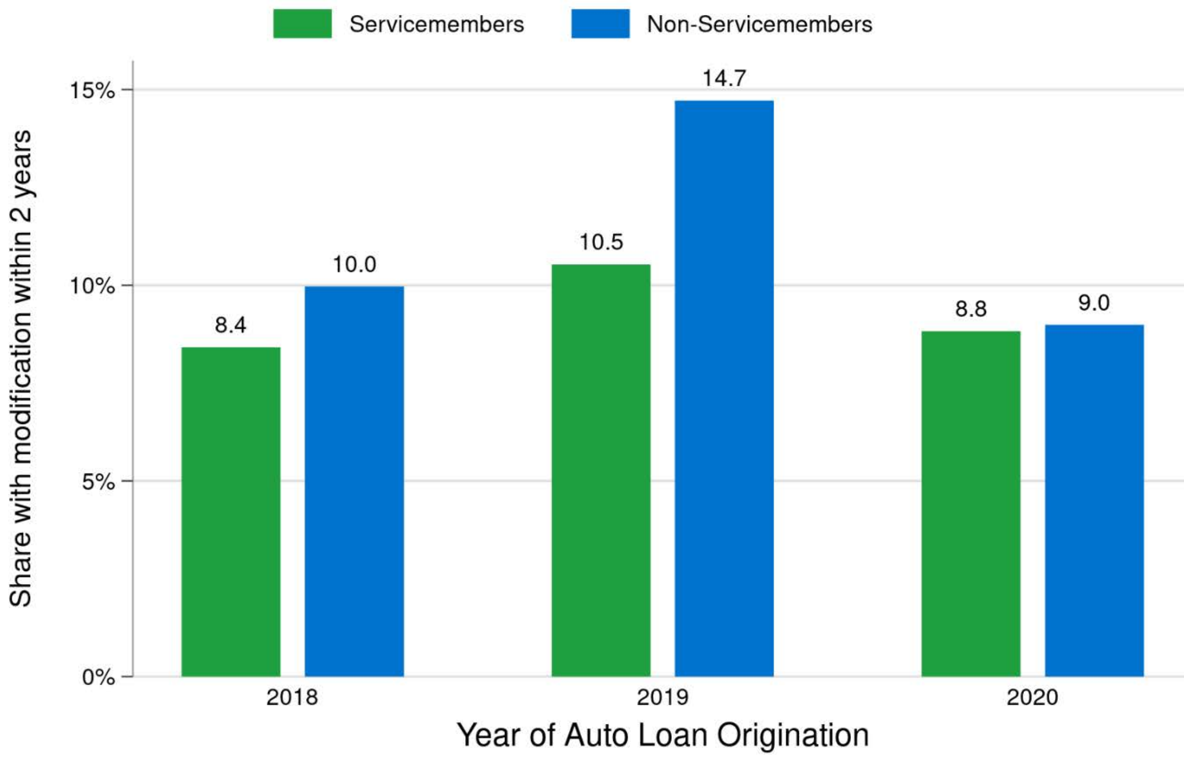
	Servicemembers		Non-servicemembers	
Characteristic (average)	Repossessed or surrendered vehicle	No repossessed or surrendered vehicle	Repossessed or surrendered vehicle	No repossessed or surrendered vehicle
Loan characteristics				
APR	13.4%	7.3%	12.9%	6.6%
PTI	10.7%	8.3%	10.9%	7.7%
LTV	115%	101%	117%	99%
Vehicle Price	$23,514	$29,892	$23,150	$29,609
Amount Financed	$25,361	$28,193	$25,226	$26,739
Borrower characteristics				
Credit score	616	709	629	726
Income	$75,535	$102,785	$74,762	$116,405

Source: CFPB auto finance data pilot

Note: All values are inflation-adjusted to December 2022 dollars.

We also examined loan modifications. Figure 17 shows the share of auto loans originated in 2018 to 2020 where the vehicle had at least one completed modification within two years (24 months) of the auto loan origination date. For servicemembers, the modification rate was 8.4 percent of originations in 2018, then rose to 10.5 percent in 2019, followed by a decrease to 8.8 percent in 2020. For non-servicemembers, there was an even larger jump in modifications for loans originated in 2019; for non-servicemembers, the modification rate was 10.0 percent of originations in 2018, then jumped nearly 50 percent to 14.7 percent in 2019, followed by a decrease to 9.0 percent in 2020. Since we follow loans for two years after origination, the two-year window for loans originated in 2019 most overlaps with the decline in interest rates and the COVID-19 pandemic, both of which could have spurred modifications for the group. Also, the pandemic may have caused greater economic uncertainty among non-servicemembers (e.g., less steady employment), which could have led to the particularly large increase in modifications for this group.

FIGURE 17: SHARE OF AUTO LOANS WITH AT LEAST ONE MODIFICATION WITHIN TWO YEARS OF ORIGINATION, BY SERVICEMEMBER STATUS AND LOAN ORIGINATION YEAR



Source: CFPB auto finance data pilot

Finally, we explored whether loan and borrower characteristics at origination are related to whether a borrower modifies their auto loan. For both servicemembers and non-servicemembers, auto loans with modifications had higher average APRs, PTI ratios, LTV ratios, and larger amounts financed at origination than those without modifications (Table 3). These signals of higher lending risk are similar in magnitude among servicemember and non-servicemember accounts with modifications.

TABLE 3: LOAN AND BORROWER CHARACTERISTICS: AUTO LOANS WITH GRANTED MODIFICATIONS WITHIN 2 YEARS OF LOAN ORIGINATION (2018-2020), BY SERVICEMEMBER STATUS

	Servicemembers		**Non-servicemembers**	
Characteristic (average)	Loan modification	No loan modification	Loan modification	No loan modification
Loan characteristics				
APR	10.9%	7.0%	10.9%	6.2%
PTI	9.6%	8.1%	9.8%	7.5%
LTV	112%	100%	114%	97%
Vehicle Price	$27,951	$30,027	$25,817	$29,952
Amount Financed	$29,795	$28,001	$27,441	$26,620
Borrower characteristics				
Credit score	635	716	640	734
Income	$93,511	$103,463	$90,200	$118,836

Source: CFPB auto finance data pilot

Note: All values are inflation-adjusted to December 2022 dollars.

4. Conclusion

Servicemembers face unique circumstances, such as frequent assignments and deployments, that non-servicemembers generally do not face. The unique circumstances may also heighten servicemember exposure to financial challenges. Servicemembers also potentially face more severe repercussions than the general population if they default on an auto loan, including military disciplinary action, suspension or loss of security clearance, delayed career progression, and inability to continue in service.[45] Motor vehicle loans are among the highest debts among military families, and this report explores several key challenges relating to auto lending for servicemembers.

We found that servicemembers experienced increased financial challenges at many points in the auto lending market when compared to non-servicemembers. Servicemembers borrowed more on comparably priced vehicles and had lower cash down payments and larger negative equity trade-ins. Servicemembers paid higher interest rates and had longer loan terms. Servicemembers also paid more for add-on purchases. Yet servicemembers were less likely to have their vehicles repossessed and slightly less likely to receive loan modifications compared to non-servicemembers.

These data and analyses provide a first look into how servicemembers fare in navigating the auto lending market as compared to non-servicemembers. The CFPB will continue to monitor this market and update these findings with additional analyses when appropriate.

[45] Congressional Research Service, *Military Families and Financial Readiness*, January 12, 2022, available at https://crsreports.congress.gov/product/pdf/R/R46983.

APPENDIX A: SUMMARY STATISTICS FROM THE AUTO FINANCE DATA PILOT

This appendix section expands on the dataset description in Section 2 by providing additional summary statistics about servicemembers in the dataset for interested readers. Further details about the dataset can be found in the appendices to the CFPB report on auto loans with negative equity.[46]

Table 4 shows that auto loan originations to servicemembers were approximately 1 percent or less of all originations in each year (2018 to 2022) in the dataset.

TABLE 4: ORIGINATIONS TO SERVICEMEMBERS IN THE AUTO FINANCE DATA PILOT, FROM 2018 TO 2022

Year	Originations	Originations to servicemembers	Military share of all originations
2018	3,956,292	40,799	1.03%
2019	4,155,027	44,605	1.07%
2020	4,494,954	43,430	0.97%
2021	4,981,074	43,605	0.88%
2022	3,773,993	30,359	0.80%
Total (2018-2022)	21,361,340	202,798	0.95%

Source: CFPB auto finance data pilot

The banks and captive lenders in the dataset all reported borrower and co-borrower military status variables. However, the finance companies did not consistently report the borrower and co-borrower military status variables, which were often reported as missing values. To make our analyses of servicemember auto loans comparable to non-servicemember auto loans, we only kept auto loans originated from banks and captive lenders in the dataset. When we drop finance companies from the dataset, the military share of all originations is slightly higher—1.03 percent versus 0.95 percent. This dropped many subprime borrowers and higher-APR loans originated by finance companies. Table 5 shows the percentage of accounts originated by lender type to

[46] Appendix A, in https://www.consumerfinance.gov/data-research/research-reports/data-spotlight-negative-equity-findings-from-the-auto-finance-data-pilot/.

servicemembers and non-servicemembers; the captive lender share for servicemembers is about three percentage points larger than the captive lender share for non-servicemembers.

TABLE 5: PERCENTAGE OF ACCOUNTS ORIGINATED FROM 2018 TO 2022, BY LENDER TYPE AND SERVICEMEMBER STATUS, AFTER DROPPING FINANCE COMPANY AUTO LOANS

Lender type	Servicemembers	Non-servicemembers
Banks	44.28%	47.27%
Captives	55.72%	52.73%

Source: CFPB auto finance data pilot

Table 6 shows the means and medians for credit score and household income (the combined income of all associated borrowers on the loan) by servicemember status, as well as the servicemember–non-servicemember difference for each statistic. Looking first at borrowers' credit scores, the mean and median both indicate lower credit scores among servicemembers.[47] The difference in mean (median) credit scores between servicemembers and non-servicemembers was 15 (14) points lower for servicemembers. The average servicemember's household income was $13,523 less than the average non-servicemember's household income. However, the difference in median household incomes is smaller in magnitude: the median servicemember's household income is $953 less than the median non-servicemember's.

TABLE 6: MEANS AND MEDIANS FOR CREDIT SCORES AND HOUSEHOLD INCOMES, BY SERVICEMEMBER STATUS (INCLUDING DIFFERENCE BETWEEN SERVICEMEMBERS AND NON-SERVICEMEMBERS)

Statistic	Servicemembers	Non-servicemembers	Difference
Credit score, mean	712	726	-15
Credit score, median	721	735	-14
Household income, mean	$103,272	$116,795	$-13,523
Household income, median	$87,375	$88,327	$-953

Source: CFPB auto finance data pilot

Note: All values are inflation-adjusted to December 2022 dollars.

[47] For loans with multiple borrowers, we used the maximum credit score of all borrowers. The CFPB believes that this method is generally consistent with how lenders typically underwrite loans with multiple borrowers.

Table 7 shows the percentage of servicemember and non-servicemember loans by credit score category at origination after finance companies were dropped from the dataset. Servicemembers were four percentage points less likely to have a superprime credit score at origination, and were slightly more likely to have a prime, near-prime, subprime, or deep subprime credit score at origination, compared with non-servicemembers.[48] Compared with a credit score distribution of auto loan borrowers in Experian Velocity® data from 2018 to 2022,[49] both servicemembers and non-servicemembers in the dataset were more likely to have prime credit scores and less likely to have subprime and deep subprime credit scores. The lower shares of subprime and deep subprime credit scores in our sample are likely related to the lack of finance companies and Buy-Here-Pay-Here dealerships in our analysis, institutions that serve a higher share of borrowers with subprime credit scores.

TABLE 7: PERCENTAGE OF SERVICEMEMBER AND NON-SERVICEMEMBER LOANS, BY CREDIT SCORE CATEGORY, AT ORIGINATION

Credit score category	Servicemembers	Non-servicemembers	Experian Velocity®
Superprime	53.31%	57.27%	53.07%
Prime	20.93%	19.45%	15.04%
Near-Prime	11.10%	10.61%	11.16%
Subprime	7.58%	6.67%	10.00%
Deep Subprime	7.08%	6.00%	10.74%

Source: CFPB auto finance data pilot and Experian Velocity®

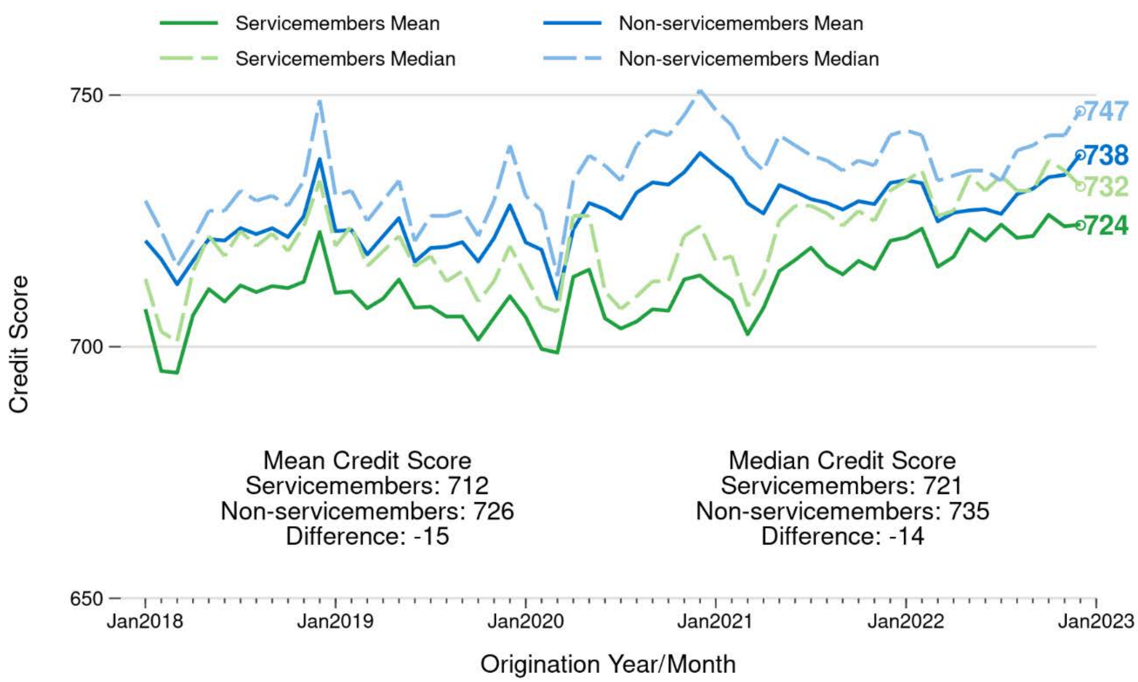
Figure 18 shows the mean and median credit scores by servicemember status and the month and year of origination. The horizontal axis measures the year and month of the vehicle purchase and loan origination, and the vertical axis measures mean and median credit scores (with solid and dashed lines, respectively). The mean and median credit scores tell a consistent story: servicemembers' credit scores are consistently lower than for non-servicemembers during the time period covered in this report. One potential explanation is that servicemembers are

[48] Credit score categories are defined as follows: deep subprime (below 580), subprime (580-619), near-prime (620-659), prime (660-719), and superprime (720 or higher).

[49] Experian Velocity® provides insights into new and used auto sales and finance trends for auto loan originations. CFPB's negative equity report used these data to establish benchmark statistics for comparisons with the auto finance data pilot. The Experian Velocity® credit score category percentages are reproduced from that report.

younger in age than non-servicemembers,[50] although we are unable to measure this directly in the dataset.

FIGURE 18: MEAN AND MEDIAN CREDIT SCORES AT ORIGINATION, BY SERVICEMEMBER STATUS



Source: CFPB auto finance data pilot

We find that servicemembers were less likely to have the lowest and highest household incomes in the dataset, compared with non-servicemembers. Table 8 shows the percentage of servicemember and non-servicemember loans by household income category at origination. Servicemembers were more likely to have a household income between $60,000 and $120,000, about as likely to have an income between $40,000 and $59,999, and less likely to have an income under $40,000 or over $120,000 compared with non-servicemember auto loan borrowers. The income distribution of servicemember households was more concentrated toward middle incomes and less skewed toward either low- or high-income households.

[50] For example, the Department of Defense reports that in September 2022, the average age of active-duty enlisted members was 27.3 years, the average age of active-duty officers is 34.3 years, and 43.5 percent of active-duty servicemembers were 25 years of age or younger; for comparison, the Bureau of Labor Statistics estimated 41.6 years as the median age of the labor force in 2023. For more information, see "2022 Demographics Profile of the Military Community," available at https://download.militaryonesource.mil/12038/MOS/Reports/2022-demographics-report.pdf; and "Median age of the labor force, by sex, race, and ethnicity," available at https://www.bls.gov/emp/tables/median-age-labor-force.htm.

TABLE 8: PERCENTAGE OF SERVICEMEMBER AND NON-SERVICEMEMBER LOANS, BY INCOME CATEGORY, AT ORIGINATION

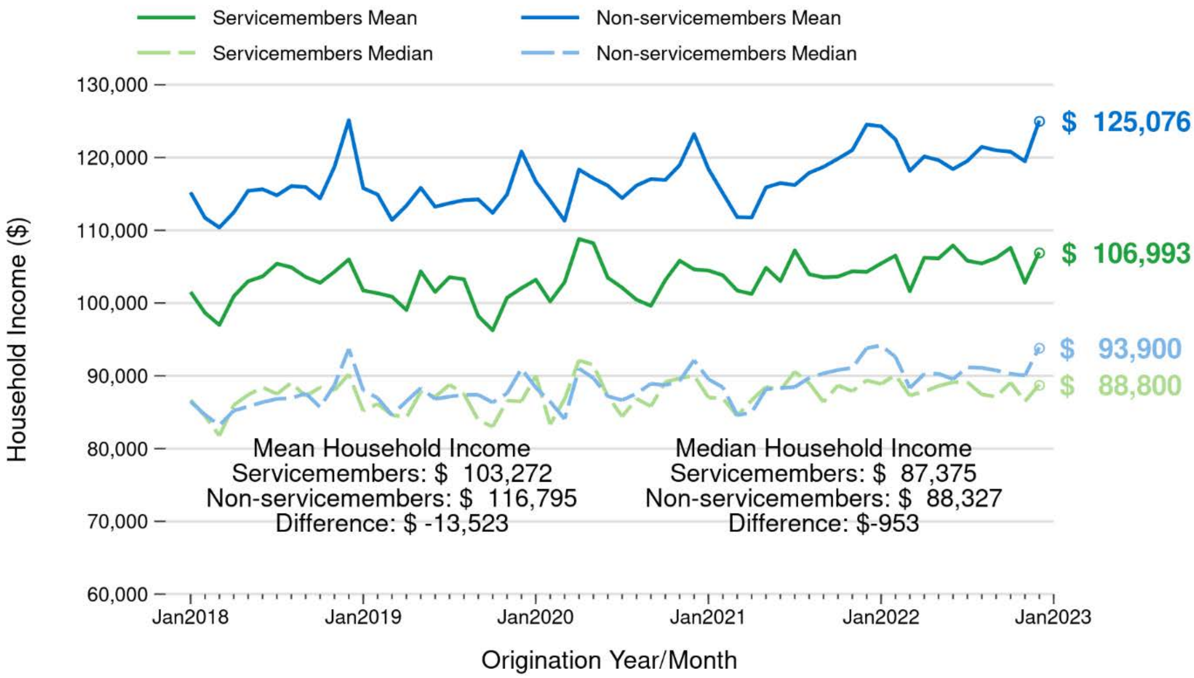
Income category at origination	Servicemembers	Non-servicemembers
Under $40,000	10.42%	11.76%
$40,000-$59,999	19.23%	19.45%
$60,000-$79,999	23.01%	19.89%
$80,000-$119,999	26.93%	22.95%
Over $120,000	20.41%	25.95%

Source: CFPB auto finance data pilot

Note: All values are inflation-adjusted to December 2022 dollars.

Figure 19 shows the mean and median household incomes by servicemember status and the month and year of origination. The horizontal axis measures the year and month of the vehicle purchase and loan origination, and the vertical axis measures mean and median household incomes (with solid and dashed lines, respectively). Dollar values are inflation-adjusted to December 2022. The mean household income among servicemembers was on average $13,523 lower than for non-servicemembers during the 2018 to 2022 period; by December 2022, the gap in mean household incomes was over $18,000. However, the median household incomes for servicemembers and non-servicemembers were more similar, with a difference of $953 less for servicemembers. Median household incomes for both groups tracked each other closely during the 2018 to 2022 period, but the median household income of servicemembers was about $5,000 less than that of non-servicemembers as of December 2022. The higher share of households with incomes over $120,000 among non-servicemembers shown earlier in Table 8 can explain why comparing the mean household incomes of both groups suggests a larger difference than comparing the medians.

FIGURE 19: MEAN AND MEDIAN HOUSEHOLD INCOMES AT ORIGINATION, BY SERVICEMEMBER STATUS

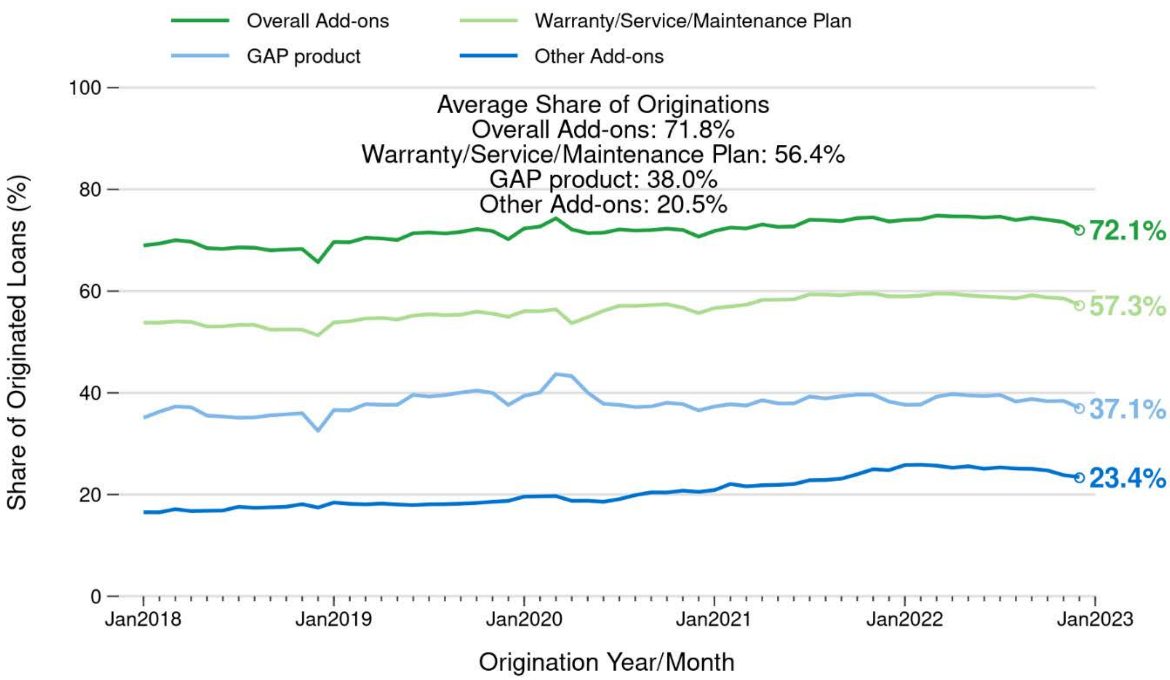


Source: CFPB auto finance data pilot

Note: All values are inflation-adjusted to December 2022 dollars.

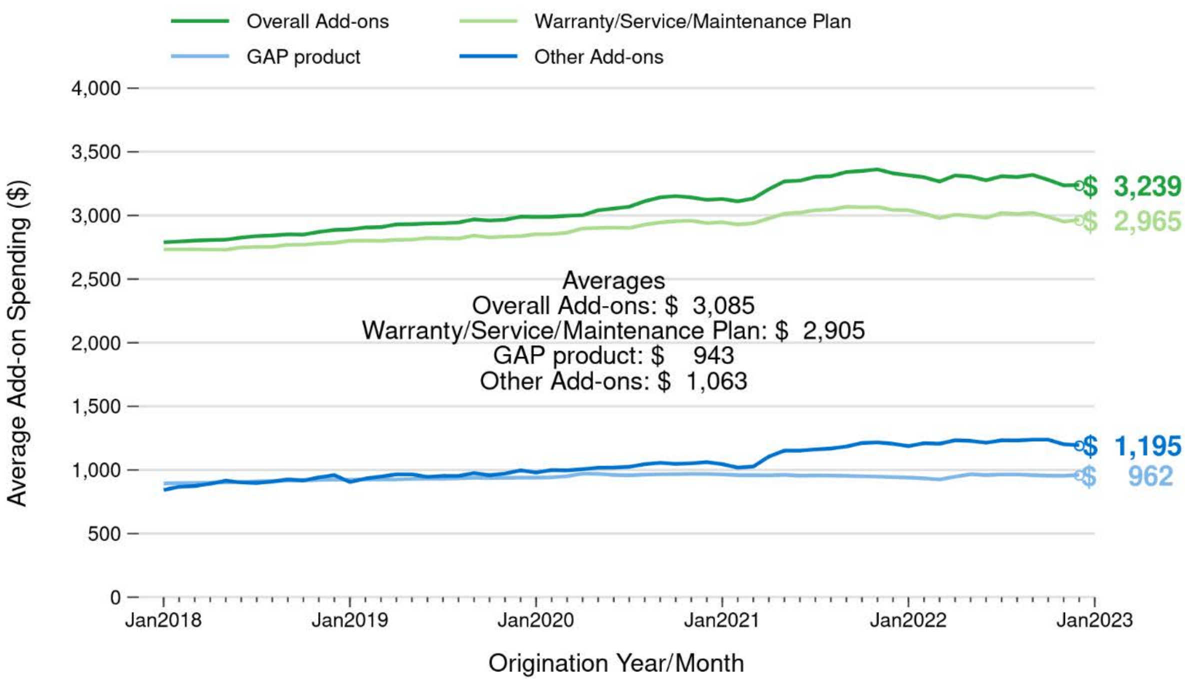
APPENDIX B: ADDITIONAL FIGURES AND TABLES

FIGURE 20: SHARE OF LOANS WITH AT LEAST ONE ADD-ON PER CATEGORY FOR NON-SERVICEMEMBERS



Source: CFPB auto finance data pilot

FIGURE 21: AVERAGE SPENDING ON ADD-ON PRODUCTS BY CATEGORY OVER TIME, AMONG NON-SERVICEMEMBER AUTO LOANS THAT INCLUDED AT LEAST ONE ADD-ON PRODUCT



Source: CFPB auto finance data pilot

Note: All values are inflation-adjusted to December 2022 dollars.