



NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

**AN ASSESSMENT OF THE POST 9/11
GI BILL TRANSFER ENTITLEMENT
ON NAVY ENLISTED RETENTION
RATES**

by

David D. Long II

December 2023

Thesis Advisor:
Co-Advisor:

Amilcar A. Menichini
Ryan S. Sullivan

Approved for public release. Distribution is unlimited.

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE			<i>Form Approved OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE December 2023	3. REPORT TYPE AND DATES COVERED Master's thesis	
4. TITLE AND SUBTITLE AN ASSESSMENT OF THE POST 9/11 GI BILL TRANSFER ENTITLEMENT ON NAVY ENLISTED RETENTION RATES			5. FUNDING NUMBERS	
6. AUTHOR(S) David D. Long II				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A			10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release. Distribution is unlimited.			12b. DISTRIBUTION CODE A	
13. ABSTRACT (maximum 200 words) The Post 9/11 GI Bill (PGIB) is one of the most transformative yet costly benefits that the VA offers. One of the most significant benefits that the PGIB program provides is the option for service members to transfer benefits to their spouses or children. The Transfer Entitlement was added to the PGIB to mitigate the expected loss of retention caused by the generous benefits in the PGIB program. This thesis focuses on the impact that the Transfer Entitlement has on retention and the current and long-term cost of this provision. The effects of the Transfer Entitlement on the retention rate were observed by assessing the difference between service members with family and service members without family. The cost of the Transfer Entitlement was obtained by the average cost of the benefits to the total number of PGIB users for each user type, and the long-term cost was obtained using inflation and interest data and projected out 30 years. The data shows that the Transfer Entitlement has a negative effect on retention; the cost of the provision annually is \$465 million, with a long-term cost of \$10.4 billion. Several recommendations could make the Transfer Entitlement more cost-effective, including reducing the years of service requirement to the first enlistment, requiring the transfer decision of service members during reenlistment negotiations, or converting the Transfer Entitlement into a reenlistment option.				
14. SUBJECT TERMS GI Bill, retention rates, manpower, military family, education, VA benefits			15. NUMBER OF PAGES 103	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UU	

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-18

THIS PAGE INTENTIONALLY LEFT BLANK

Approved for public release. Distribution is unlimited.

**AN ASSESSMENT OF THE POST 9/11 GI BILL TRANSFER ENTITLEMENT
ON NAVY ENLISTED RETENTION RATES**

David D. Long II
Lieutenant, United States Navy
BS, Purdue University, 2014

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF BUSINESS ADMINISTRATION

from the

**NAVAL POSTGRADUATE SCHOOL
December 2023**

Approved by: Amilcar A. Menichini
Advisor

Ryan S. Sullivan
Co-Advisor

Amilcar A. Menichini
Academic Associate, Department of Defense Management

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

The Post 9/11 GI Bill (PGIB) is one of the most transformative yet costly benefits that the VA offers. One of the most significant benefits that the PGIB program provides is the option for service members to transfer benefits to their spouses or children. The Transfer Entitlement was added to the PGIB to mitigate the expected loss of retention caused by the generous benefits in the PGIB program. This thesis focuses on the impact that the Transfer Entitlement has on retention and the current and long-term cost of this provision. The effects of the Transfer Entitlement on the retention rate were observed by assessing the difference between service members with family and service members without family. The cost of the Transfer Entitlement was obtained by the average cost of the benefits to the total number of PGIB users for each user type, and the long-term cost was obtained using inflation and interest data and projected out 30 years. The data shows that the Transfer Entitlement has a negative effect on retention, and costs billions of dollars in the long term. Several recommendations could make the Transfer Entitlement more cost-effective, including reducing the years of service requirement to the first enlistment, requiring the transfer decision of service members during reenlistment negotiations, or converting the Transfer Entitlement into a reenlistment option.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
II.	LITERATURE REVIEW	5
A.	HISTORICAL GI BILL.....	5
1.	Service Member Benefits.....	5
2.	Survivor Benefits.....	13
3.	Multiple VA Educational Benefits.....	15
B.	POST 9/11 GI BILL.....	16
1.	Expanded Pool of Beneficiaries	16
2.	Benefits.....	17
3.	Spouse and Dependent Entitlements.....	18
4.	Intent and Predictions	19
5.	Implementation	26
6.	Usage and Cost	28
7.	Additional Effects.....	31
8.	Supreme Court Case.....	33
C.	COMPARING GI BILLS.....	34
D.	PRIOR RESEARCH AFTER IMPLEMENTATION OF THE PGIB.....	37
1.	Congressional Research Service Study, 2014	37
2.	RAND Study, 2017	40
3.	Congressional Budget Office Study, 2019.....	42
III.	METHODOLOGY	47
A.	OBJECTIVE ONE: IMPACT OF THE PGIB TRANSFER ENTITLEMENT ON THE NAVY’S RETENTION RATES.....	47
B.	OBJECTIVE TWO: COST OF THE TRANSFER ENTITLEMENT.....	48
1.	GI Bill Usage Rate.....	48
2.	Valuation of Transfer Entitlement.....	48
C.	OBJECTIVE THREE: THE LONG-TERM COST OF THE TRANSFER ENTITLEMENT	49
IV.	ANALYSIS	51

A.	OBJECTIVE ONE: IMPACT OF THE PGIB TRANSFER ENTITLEMENT ON THE NAVY ENLISTED RETENTION RATES	51
B.	OBJECTIVE TWO: COST OF THE TRANSFER ENTITLEMENT	53
1.	GI Bill Usage Rate.....	53
2.	Valuation of the Transfer Entitlement.....	55
C.	OBJECTIVE THREE: THE LONG-TERM COST OF THE TRANSFER ENTITLEMENT	60
V.	SUMMARY, RECOMMENDATION, AND CONCLUSION.....	63
A.	SUMMARY	63
B.	RECOMMENDATIONS.....	63
C.	FURTHER RECOMMENDED RESEARCH.....	64
D.	CONCLUSION	66
	APPENDIX A. 2008 QUICK COMPASS OF ACTIVE-DUTY MEMBERS	67
	APPENDIX B. HISTORICAL RETENTION RATES BASED ON YEARS OF SERVICE.....	71
	APPENDIX C. HISTORICAL GI BILL USAGE RATE AND COST	75
	LIST OF REFERENCES.....	77
	INITIAL DISTRIBUTION LIST	85

LIST OF FIGURES

Figure 1.	Effects of Implementation of the PGIB. Source: VA Office of Inspector General, Office of Audits & Evaluations (2010).	28
Figure 2.	Maximum (per Student) Nominal Value of GI Bills: 1945–2023.	35
Figure 3.	Maximum (per Student) Real Value of GI Bills: 1945–2023.	35
Figure 4.	Maximum (per Student) Nominal Value of GI Bills: 1945–2008.	36
Figure 5.	Maximum (per Student) Real Value of GI Bills: 1945–2008.	37
Figure 6.	Type of Education Chosen under the Post-9/11 GI Bill by Beneficiary Type, 2016. Source: CBO (2019).	43
Figure 7.	Type of Institution Attended under the Post 9–11 GI Bill by Beneficiary Type, 2016. Source: CBO (2019).	43
Figure 8.	Average Outlay on the Post-9/11 GI Bill’s Benefits by Beneficiary Type, 2016. Source: CBO (2019).	44
Figure 9.	GI Bill Usage Rate. Adapted from VA (n.d.-d).	54
Figure 10.	Usage Rate per Year by Beneficiary Type. Adapted from VA (n.d.-d).	54
Figure 11.	New GI Bill by Type 1999–2010. Adapted from VA (n.d.-d).	55
Figure 12.	New GI Bill Users. Adapted from VA (n.d.-d).	55
Figure 13.	Total GI Bill Users. Adapted from VA (n.d.-d) and CBO (2019).	56
Figure 14.	Total Cost of PGIB by Beneficiary Type. Adapted from VA (n.d.-d) and CBO (2019).	57
Figure 15.	PGIB Transfer Entitlement Nominal Cost. Adapted from VA (n.d.-d) and CBO (2019).	58
Figure 16.	PGIB Transfer Entitlement Real Cost. Adapted from VA (n.d.-d) and CBO (2019).	58
Figure 17.	Cost of PGIB Transfer Entitlement per User Type (adjusted for Inflation). Adapted from VA (n.d.-d), CBO (2019), and BLS (n.d.-a).	59

Figure 18.	PGIB Transfer Entitlement Real Cost Scoped to Navy Enlisted and CBO (2019).....	60
Figure 19.	Cost for PGIB Transfer Entitlement for Navy Enlisted Family Members. Adapted from VA (n.d.-d) and CBO (2019).....	61

LIST OF TABLES

Table 1.	Percentage of Maximum Post-9/11 GI Bill Benefits Based on Aggregate Length of Active Duty. Source: VA (2023g).....	17
Table 2.	Preliminary Estimated Cost of the Post-9/11 GI Bill. Source: Orszag (2008).....	21
Table 3.	PGIB Obligation and Usage Since Enactment. Adapted from Dortch (2021), VA (n.d.-d), and BLS (n.d.-a).	29
Table 4.	DEA Obligation and Usage. Adapted from National Center for Education Statistics (n.d.), VA (n.d.-d), & BLS (n.d.-a).	30
Table 5.	PGIB Transfer Entitlement Effects on Retention Rates. Adapted from DMDC (personal communication, August 26, 2023).	52
Table 6.	Survey Results for Active-Duty Members. Adapted from DMDC (2008).....	67
Table 7.	Retention Rates Based on Years of Service. Adapted from DMDC, Personal Communication, August 26, 2023)	71
Table 8.	Historical GI Bill User Rate Based on User Type. Adapted from VA (n.d.-d).....	75
Table 9.	Historical GI Bill Cost Data. Adapted from BLS (n.d.-a), CBO (2019), VA (n.d.-d)	76

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF ACRONYMS AND ABBREVIATIONS

AC	Active-Duty Component
BAH	Basic Allowance for Housing
BAS	Basic Allowance for Substance
CBA	Cost Benefit Analysis
CBO	Congressional Budget Office
CRAM	Combinatorial Retention Auction Mechanism
DEA	Survivors' and Dependents' Educational Assistance
DMDC	Defense Manpower Data Center
DOD	Department of Defense
FY	Fiscal Year
GI	Government Issue
GIBR	GI Bill of Rights
GWOT	Global War on Terrorism
HYT	Higher Tenure
MGIB	Montgomery GI Bill
MGIB-AD	Montgomery GI Bill – Active Duty
MGIB-SR	Montgomery GI Bill – Selected Reserve
NPS	Naval Postgraduate School
NROTC	Navy Reserve Officer Training Corps
NUPOC	Nuclear Propulsion Officer Candidate Program
OEА	War Orphans' Educational Assistance Act
PGIB	Post 9/11 GI Bill

RC	Reserve Component
SRA	Servicemen Readjustment Act
SRB	Selective Reenlistment Bonus
VA	Veterans Affairs
VEAP	Post-Vietnam Era Veterans Educational Assistance Program
VRA	Veterans Readjustment Act
WWI	World War I
WWII	World War II
YOS	Years of Service

ACKNOWLEDGMENTS

First and foremost, I would like to recognize and thank my amazing family. I am blessed to have an amazing wife like Renae, who was my motivation, sounding board, and inspiration. Your love and encouragement kept me pushing throughout the late-night hours. To my two daughters, Kara and Zoey, thank you for keeping me sane and smiling for these many years and for being understanding when situations did not allow us to spend much time together. To my extended family, thank you for all the support you have given me and my family throughout the years.

Second, I want to show my deepest gratitude to Dr. Amilcar Menichini and Dr. Sullivan for their expertise, guidance, and patience. They took time and effort to guide me through the process. They never faltered in their ability to guide me on the correct path. I owe them a great debt for all they have done.

Next, I would like to thank all the members of my financial management cohort, especially the SWOs. Thank you for helping me when I struggled with academic concepts and motivating me to work harder and reach farther. We started this path together, and we will end it strong.

Finally, I would like to dedicate this body of work to what initially inspired this study, the Indianapolis Naval Reserve Center. This is where I developed from a junior enlisted to an OCS candidate. I especially want to thank three former Indianapolis Naval Reserve Center members for their guidance, training, and inspiration to set me on the path to becoming the officer I have become: IT1 Timmothy Baum, AG1 James Patterson, and NC1 Justin Simmons.

THIS PAGE INTENTIONALLY LEFT BLANK

I. INTRODUCTION

Military veterans and their families have had significantly unique experiences and stresses throughout American history. Risking one's life in service to the nation, the United States felt it necessary to reward this service through the pension system and, more recently, veterans' benefits. These veterans' benefits help recruitment efforts by ensuring new accessions that honorable military service is well rewarded and that even if the service member dies in combat, the United States will care for their family members.

In 2009, the most significant expansion to military veterans' benefits in decades occurred with the Post 9/11 GI Bill (PGIB) implementation. This immediately and profoundly affected veterans who served in the military after 9/11 and those on active duty. Congress created the Transfer Entitlement in the PGIB to mitigate the expected lower retention rates for the military due to increased veterans' education benefits. The Transfer Entitlement allowed service members to transfer their earned veterans' education benefits to their family members in exchange for four additional years of service.

Fourteen years have passed since the PGIB implementation, and several questions about the Transfer Entitlement must be asked. The Transfer Entitlement was created to mitigate the lower retention rates. From this, the first question should be whether the PGIB Transfer Entitlement is cost-effective by increasing the retention rates. If it does not significantly increase the retention rate, the next question should be: What is the historical and current cost of the Transfer Entitlement? If there is a significant cost for the Transfer Entitlement, then the third question should be: What is the long-term cost of the provision?

Since the implementation of the PGIB, little research has been conducted on the PGIB Transfer Entitlement and its effects on retention. However, there were several research projections before the implementation. A RAND study in 2017 was the only one that directly assessed the Transfer Entitlement on retention after PGIB implementation that could be located. Other studies used data from the 2017 RAND study or preliminary estimates before implementation of the PGIB. The Transfer Entitlement retention effects lack research in the area.

This research focused on three main areas to assess the PGIB Transfer Entitlement. The three areas of focus for this research were the impact of the Transfer Entitlement on the Navy's retention rates, the historical and current cost of the Transfer Entitlement, and the long-term cost of the Transfer Entitlement.

To use the Transfer Entitlement, the service member must have completed six years of total military service but not more than 16 years and commit to an additional four years of military service. This requirement would indicate a potential incentive to reenlist for service members who have families. The first research objective of this thesis is to determine the Transfer Entitlement's impact on retention rates for Navy sailors who have families.

The PGIB Transfer Entitlement is one of the most significant changes to the Veterans' Education Benefits program. The PGIB has increased the total cost of the Veterans' Education Benefits, partially due to the increase in veterans using their earned education benefits. The second reason for the cost increase is the ability of service members to transfer their PGIB to their families. The second research objective of this thesis is to determine the overall cost of the Transfer Entitlement.

Due to the Transfer Entitlement's significant lead time from service members earning veterans benefits to the time benefits are used by family members, especially when transferred to young children, the cost of the PGIB Transfer Entitlement program may rise over time. The third research objective of this thesis was to determine the long-term cost at present value of the PGIB Transfer Entitlement.

The research was scoped down to focus on active-duty Navy enlisted due to the complexity and accessibility of the broad Department of Defense manpower data. Active-duty veterans and their families comprise most of the PGIB benefits, and active-duty data are more available and less complex than reserve-duty data. The research will focus on the Navy enlisted because each branch has its own reenlistment systems, and data for the Navy enlisted was attainable. Officer retention data are significantly more complex and individualized and was not used for this research.

The data for this research was obtained from several different sources, mainly from the Defense Manpower Data Center (DMDC) and the Department of Veterans Affairs (VA). Other data that was used for this research comes from the Congressional Budget Office (CBO), Congressional Research Center (CRS), RAND, the Bureau of Labor Statistics (BLS), the Department of Education, and Congress. Additionally, minor additional data from other resources were used in this research. These data sets were compiled in analysis to answer the three objectives.

The methodology to answer the three objectives used retention, service member family status, GI bill usage, and inflation and interest prediction data sets. The first objective, the impact of the PGIB Transfer Entitlement, used retention data. The second objective, Cost of the Transfer Entitlement, uses the service members' family status and GI Bill usage data sets. The third objective: The long-term cost of the Transfer Entitlement, uses service members' family status, GI Bill usage, and prediction data sets.

The analysis of the data showed some surprising results. With the first objective, the data adapted from DMDC (personal communication, August 26, 2023), shows a coefficient effect of -8.848% on retention rates between service members with families and service members without families. The second objective, the data, adapted from VA (n.d.-d) and CBO (2019) shows that the cost of the PGIB Transfer Entitlement has been relatively stable when accounting for inflation. The overall annual cost of the Transfer Entitlement for Navy enlisted is \$465 million. The third objective, the data, adapted from CBO (2019), CBO (2023) and VA (n.d.-d), shows that the present value of the PGIB Transfer Entitlement for Navy enlisted for 30 years, is \$10.35 billion.

Several recommendations could be implemented to improve the cost-effectiveness of the PGIB Transfer Entitlement. The first recommendation would require the service member to opt into the Transfer Entitlement at reenlistment points rather than a ten-year window. The second recommendation would be to lower the initial YOS requirement to qualify to transfer the PGIB. The third recommendation would be turning the Transfer Entitlement into a reenlistment option; service members decide between transferring their entitlements or a selective retention bonus. Each of these recommendations can be useful in improving the cost-effectiveness of the Transfer Entitlement.

THIS PAGE INTENTIONALLY LEFT BLANK

II. LITERATURE REVIEW

The PGIB has only been in effect for 14 years, but it has connections to veteran education programs stretching back to the end of WWII and caring for U.S. veterans originated during the Revolutionary War.

A. HISTORICAL GI BILL

1. Service Member Benefits

Throughout U.S. history, there has been an expectation of caring for war veterans and their families as gratitude for the service they provided to the country.

a. Pension and Bounties

The military pension system is different from the military retirement system in that military retirement is given for a long career in military service, typically 20 years or more, and is paid out for the remainder of the veteran's life. A pension system is given broadly to service members for honorable service during a single war and typically has an expiration date on the benefits. The original U.S. military pension system began during the opening years of the American Revolutionary War. According to Nudd (2015)

To encourage officers and enlisted men to serve for the duration of the conflict, the Continental Congress passed a resolution on May 15, 1778, allowing half-pay for all officers and a set gratuity of \$80 to all enlisted men who remained in service to the end of the war. (para. 6)

The pension would continue for seven years after discharge. The widow's pension was enacted two years later and was similar to the veterans' pension. The \$80 that was guaranteed to the enlisted is equivalent to \$2,307 in 2023 (Official Data Foundation, 2023); in comparison, an officer serving as a colonel in the infantry earned \$75 a month by the end of the Revolutionary War (Greenwalt, 2021). By the end of the seven years, the veteran would have received a total of \$3,150 from the pension (\$94,404 adjusted for inflation [Official Data Foundation, 2023]).

With the establishment of a federal government under the Constitution of the United States, new benefits for Revolutionary War veterans were provided, and according to the National Archives (2022a),

Congress authorized bounty land warrants for military service in the Revolutionary War under acts of 1788, 1803, and 1806. Veterans were granted pensions beginning in 1818, and widows became eligible in 1836. Surviving veterans also qualified under the final Bounty Land Act of 1855. (para. 12)

These bounty land warrants expanded to include veterans of the War of 1812, the Mexican–American War, and the Indian Wars (National Archives, 2022a). These bounty land warrants allowed veterans and their families to make a living on the frontier and expand west throughout the continent. Along with the bounties, Congress expanded the pension system to better care for the nation’s veterans.

The pension system continuously evolved but had very similar elements. Military pensions were for service members and their spouses, issued monthly several decades after they served. According to the National Archives (2022a) for the Revolutionary War, the first continuous pension was not given until 1818, 35 years after the war ended. For the War of 1812, the first pension was not given until 1871, 56 years after the war ended, to veterans and, in 1878, to widows. For the Mexican–American War, the first pension was not given until 1887, 39 years after the war ended. For the Civil War, the first pension was not given until 1890, 25 years after the war ended. Veterans of the Spanish–American War and Philippine Insurrection were tied into the Civil War pension system. For the Indian Wars, the first pension was not given until 1927, 29 years after the wars ended (National Archives, 2022a). With the additional veterans’ pensions given by a few states, veterans’ homes, and burial rights, these pensions were the only long-term benefits veterans received. The pension system became the predecessor to military retirement and the Social Security system.

Veterans often counted on the pension they earned to assist in their older years. The views of pensions and veterans’ support were challenged during the Great Depression and the Bonus Army. According to the National Park Service (2023), the Bonus Army consisted of WWI veterans requesting early payment of their pension. WWI ended in 1918,

and six years later, the U.S. government promised to pay a pension in 1945. In 1932, several WWI veterans marched on Washington, DC, demanding early payment of their pensions. The protest lasted from May 17 to July 28, when then-President Hoover ordered General Douglas MacArthur to disband the protesters. The U.S. Army used tear gas and bayonets to drive the WWI veterans away. This created outrage in America, and four years later, Congress approved the early payout of the pension (National Park Service, 2023). This would lead to the creation of the GI Bill of Rights (GIBR) and the consolidation of all veterans benefits under the control of the VA. With the ever-increasing number of veterans that was accumulating during the mid-20th century, this ensured their needs were met.

b. GI Bill of Rights, 1944

During WWII, more people were in the military than at any other time in human history. Worldwide, over 127 million men and women mobilized during WWII; in 1939, the world population was only 2.2 billion (Military History Matters, 2019). The United States contributed 16,112,556 service members to the Allies' efforts. WWII created more war veterans than all prior U.S. wars combined (7,943,000 combined war veterans, except WWII; VA, 2021a). This created a unique situation in which a significant portion of the adult population was returning veterans, which created fear in the United States government. According to the National Archive (2022b), "While World War II was still being fought, the Department of Labor estimated that, after the war, 15 million men and women who had been serving in the armed services would be unemployed" (para. 2). This was only a decade removed from the Great Depression. The U.S. government wanted to prevent another economic depression and learn from past mistakes with WWI veterans and the Bonus Army. Congress set out to create a GIBR for future returning veterans.

The first step was to determine what was needed in creating the GIBR; according to the National Archives (2022b), the GIBR started with a study conducted by the National Resources Planning Board in early 1942 on postwar manpower needs; this study focused on ways to reduce the possibility of a postwar depression. The American Legion designed the features of the Servicemen Readjustment Act (SRA), which was later renamed the GIBR. The SRA passed both chambers of Congress unanimously, and on June 22, 1944,

then-President Franklin D. Roosevelt signed it into law as Public Law 78-346. (National Archives, 2022b).

The GIBR had several entitlements to assist new WWII veterans in rejoining civilian life and to minimize the impact of the surge of potential unemployed veterans. According to History.com Editors (2019), these entitlements included \$20 (\$337 adjusted for inflation [BLS, n.d.-a]), per week unemployment benefits for up to 1 year, job counseling, government-guaranteed loans to purchase homes, businesses, or farms, medical care for veterans, and education benefits. By the expiration of the GIBR, almost 10 million veterans benefited from the program (History.com Editors, 2019). These benefits helped veterans develop a stronger U.S. economy, creating the American middle class of the 1950s.

The education benefits of the GIBR are what most service members think of when discussing the GI Bill today. History.com Editors state that the GIBR education benefits included up to \$500 (\$8,445 adjusted for inflation for 2023 [BLS, n.d.-a]) for college or vocational school tuition and a cost-of-living stipend. This vastly increased attendance at many universities nationwide, leading to a more productive and educated workforce. The GIBR lasted until 1956, when the bill expired (History.com Editors, 2019). The GIBR laid the groundwork for all future GI bills and the entitlements that impact the veterans of American wars.

c. GI Bill of Rights for Korean Veterans

On June 25, 1950, the forces of North Korea descended past the 38th parallel to attempt to capture South Korea and reunite the peninsula under North Korean and communist rule; this kickstarted the Korean War. The United States was in a new war less than five years after WWII ended. The U.S. military was ready to fight another war because it never had a chance to fully demobilize after WWII. According to the Office of Program and Data Analyses (2000), the Korean War created 6.8 million veterans, of which 575,000 had also served in WWII (Office of Program and Data Analyses, 2000). This created a situation where over 6 million new veterans would return after the war. Due to the generous

benefits of the GIBR, there were expectations that those—or similar—benefits would continue for Korean War veterans.

The GIBR for WWII veterans was still being given during the Korean War and was expected to continue until 1956. Realizing over 6 million new veterans would be returning to U.S. civilian life, Congress pushed to enact the Veterans Readjustment Assistance Act of 1952, similar to the 1944 SRA. This act provided funds for home, farm, and business loans, unemployment and self-employment, mustering-out pay, and education and training. The act also made changes to prevent abuse practices against the 1944 SRA. The home loan guarantee could not exceed \$7,500 (\$85,229 adjusted for inflation for 2023 [BLS, n.d.-a]) for homes, \$2,000 (\$22,727 adjusted for inflation for 2023 [BLS, n.d.-a]) for businesses, and \$10,000 (\$113,639 adjusted for inflation for 2023 [BLS, n.d.-a]) in rural areas where finances were not available. The act provided up to \$26 (\$295 adjusted for inflation for 2023 [BLS, n.d.-a]) a week for 26 weeks for unemployment benefits. It also provided funds for job training for each service member, up to \$105 (\$1,193 adjusted for inflation for 2023 [BLS, n.d.-a]) per month. The act provided a mustering-out pay to all veterans under the rank of major or lieutenant commander. This mustering-out pay was essentially a separation pay that gave service members \$300 (\$3,409 adjusted for inflation for 2023 [BLS, n.d.-a]) for 60 active-duty service days outside of the United States, \$200 (\$2,273 adjusted for inflation for 2023 [BLS, n.d.-a]) for 60 active-duty days served inside the United States, or \$100 (\$1,136 adjusted for inflation for 2023 [BLS, n.d.-a]) for less than 60 active-duty days. The act additionally provided education benefits similar to the 1944 SRA, with some exceptions (Veterans' Readjustment Assistance Act, 1952).

The 1952 Veterans' Readjustment Act (VRA) education benefits were more complex than those for the 1944 SRA. The amount of education benefits was based on the total time of service. Veterans became entitled to benefits once they completed 90 days of service and would receive benefits of 1.5 days of education for each day of military service during the Korean War. The benefits would max out at 36 months, but if the service member earned benefits from the 1944 SRA, they could be entitled to as much as 48 months of combined education benefits. The education benefit gave a stipend of up to \$160 (\$1,818 adjusted for inflation for 2023 [BLS, n.d.-a]) per month. This means the maximum

education benefits for any service member would be \$5,760 (\$65,457 adjusted for inflation for 2023 [BLS, n.d.-a]). The 1952 VRA benefits were significantly better than the 1944 GIBR but had a stricter timeline. A veteran had to start their VRA benefits within two years after being discharged and complete them within seven years (Veterans' Readjustment Assistance Act, 1952).

The VRA passed the House on June 5, 1952, with a vote of 361–1. The VRA passed the Senate on June 28, 1952, and was signed into law by then-President Harry S. Truman on July 16, 1952 (Veterans' Readjustment Assistance Act, 1952). The Korean War ended in a cease-fire on July 27, 1953, and the veterans returned home and once again took advantage of the benefits they earned. The final cutoff date for the VRA was January 31, 1965 (Veterans Benefits Administration, 2007b).

d. Vietnam Era GI Bill

On August 2, 1964, the Gulf of Tonkin incident set the U.S. involvement in Vietnam in motion. Like U.S. involvement in Korea, Vietnam was an unofficial war. Though it was not an official war, many in the government still wanted to create a GI Bill for service members fighting in Vietnam. On January 4, 1965, the Senate introduced the Vietnam Era GI Bill (VGIB), and it passed the Senate on July 19, 1965. The bill then went to the House, where it passed on February 7, 1966. The VGIB was signed into law on March 3, 1966, by then-President Lyndon B. Johnson (Veterans' Readjustment Benefits Act, 1966).

The VGIB focused on education benefits, and the other veterans' benefits were spun off into other programs in the VA. According to the Veterans Benefits Administration (2007b), the VGIB gave education benefits to all service members who honorably served in the military for a minimum of 181 active-duty days from January 31, 1955, to January 2, 1978. VGIB benefits included a maximum of \$150 (\$1,394 adjusted for inflation for 2023 [BLS, n.d.-a]) per month. The amount of time a person received the education benefit depended on the total active duty service (Veterans Benefits Administration, 2007b). For every month of active duty, the service member received 1.5 months of education benefits, up to 45 months (MyNavy HR, n.d.-c). This would mean the maximum payout for a service

member would be \$6,750 (\$62,717 adjusted for inflation for 2023 [BLS, n.d.-a]). The program eventually terminated on December 31, 1989.

e. Post-Vietnam Era Veterans Educational Assistance Program

Military personnel were significantly drawn down after Vietnam and the end of a conscription military. Military pay and benefits greatly increased in the late 1970s and 1980s to maintain recruitment and retention rates and compete with the civilian sector. The largest and most incentivizing benefit to young adults was the promise of higher education paid for by the military. The issue came with few peacetime veteran benefits; this changed with the creation of the Post-Vietnam Era Veterans Educational Assistance Program (VEAP). The Senate introduced a bill on March 3, 1975, two years after U.S. involvement in Vietnam and less than two months before the fall of South Vietnam, that, among other veteran benefits, would establish VEAP. The bill was amended three times, and both chambers resolved the amended bill and passed it on October 1, 1976. The bill was signed into law by then-President Gerald Ford on October 15, 1976 (Veterans' Education and Employment Assistance Act, 1976).

According to MyNavy HR (n.d.-b), To be eligible to receive VEAP, a service member must have served active duty between January 1, 1977, and June 30, 1985, and contributed to a VEAP account. VEAP was the first GI Bill that required service members to pay into a system to receive education benefits. MyNavy HR further states that the military would double the payments made to the account by the service member up to the service member's contribution limit of \$2,700 (\$14,108 adjusted for inflation for 2023 [BLS, n.d.-a]), and the military would contribute \$5400 (\$28,218 adjusted for inflation for 2023 [BLS, n.d.-a]). This would give the service member \$8,100 (\$42,326 adjusted for inflation for 2023 [BLS, n.d.-a]) towards education expenditures. VEAP was the least generous of all GI Bills for active-duty service members. This was partially remedied by the Veterans' Benefits Improvement Act of 1996. This allowed service members on active duty as of October 9, 1996, and having money in their VEAP account to convert to a much more generous MGIB; They had until October 8, 1997, to make the conversion (MyNavy HR, n.d.-b).

f. Montgomery GI Bill

When the Vietnam War ended, many returning service members expected the treatment that previous generations of veterans enjoyed after WWII. The Vietnam War veterans quickly realized that their situation did not meet their expectations. Veterans' benefits were significantly cut. Scott (2012) states that the VA budget, adjusted for inflation, locally peaked in 1976, with a budget of \$19.3 billion (\$106 billion adjusted for inflation for 2023 [BLS, n.d.-a]), then continued to drop for the next 14 years until 1990, with a budget of \$29.3 billion (\$70 billion adjusted for inflation for 2023 [BLS, n.d.-a]). The VA budget has increased when adjusting for inflation every year since (Scott, 2012). The 14-year drop in the veterans' benefits budget could be accounted for by the dismal benefits of the VEAP program; the increase could be the effects of veterans starting to utilize the significantly more generous MGIB.

In the early 1980s, Congress started a search for a possible new GI bill to combat the low recruitment and retention numbers for the new all-volunteer force. In 1984, then-Mississippi Congressman Gillespie V. "Sonny" Montgomery designed and championed a new GI Bill. The bill was initially called the All-Volunteer Force Educational Assistance Program. It was enacted under the Department of Defense Authorization Act of 1984, which then-President Ronald Reagan signed on October 19, 1984 (Department of Defense Authorization Act, 1984). The bill later gained the name Montgomery GI Bill after the efforts of then-Congressman Montgomery (VA, 2023b).

The main goal of the MGIB was to improve recruitment and retention by improving veteran education benefits. According to Dortch (2021), "To encourage recruitment, the servicemember's monetary contribution was reduced compared to that under VEAP, which required contribution levels resulting in only 20%-25% of recruits contributing" (Dortch, 2021). According to the VA (2023b), service members could elect to participate in the MGIB program when entering service for the first time. The service member must contribute a non-refundable \$100 a month for the first 12 months of military service, serve 36 months of active duty or to the end of the original enlisted contract and obtain an honorable discharge to earn the MGIB benefits. According to VA (n.d.-a), the benefits adjust based on inflation and are updated annually in October. As of October 1, 2022, a

service member's maximum benefit from the MGIB is \$2,210 a month for 36 months, or \$79,560 (VA, n.d.-a). The \$1,200 required contribution is steady and is not affected by inflation, which is significantly less than the maximum contribution requirement for benefits in the VEAP program. With the introduction of the PGIB, the MGIB program is set to be phased out beginning on October 1, 2030; after that date, no new accession into the military can elect to join the MGIB program (Office of the Under Secretary of Defense for Personnel and Readiness, 2022a).

2. Survivor Benefits

Since the founding of the United States, there has been a considerable effort to take care of service members' families, especially when the service member dies in action.

a. Widows' Pension System

The first survivor benefit issued to service members' widows was a pension set up by the Continental Congress, passed on August 24, 1780. It was only issued to officer widows and equal to what their spouse would have received after the war if they had survived. The pension was worth half the service members' pay for seven years. A widow of a fallen U.S. colonel, making \$75 a month (Greenwalt, 2021), could receive up to \$3,150 (\$70,286 adjusted for inflation for 2023; Official Data Foundation, 2023). After the war, additional survivor benefits were signed into law.

The first organized pension system was signed into law on June 7, 1794; it gave widows of officers who died in service half of the officers' military pay for five years. This act also included orphans under 16 of the fallen service members if there was no other parent. Unlike the 1780 pension system, this was signed by the government under the U.S. Constitution and was meant to be more permanent (Waite, 1893).

The Widows' Pension System was modified several times over the years. The first significant modification was after the War of 1812, on April 16, 1816, to include widows and orphans of enlisted members. After the Mexican–American War in 1848, the following modification increased the number of widows and orphans receiving benefits by including service members who died of disease. Before this change, widows and orphans only

received benefits if the service member died of wounds during battle (Waite, 1893). The last significant change happened in 1868 when widows of fallen service members were given a pension for the remainder of their lives or until they remarried. The rate was \$8 (\$172 adjusted for inflation for 2023 [Official Data Foundation, 2023]) per month plus an additional \$2 (\$43 adjusted for inflation for 2023 [Official Data Foundation, 2023]) a month for each minor under 16 (Waite, 1893). The pension system has changed with the times, adjusted for inflation, and become the survivor benefits that assist gold star families today. One of the most important benefits for the long-term future of the widows and children of fallen service members is the education benefits.

b. War Orphans' Educational Assistance Act of 1956

Many American service members died in the first half of the 20th century, which created an untold number of children with deceased parents. Congress passed the first service members' children's education benefits on June 29, 1956. The War Orphans' Educational Assistance Act (OEA) (1956) allowed children of service members who died of disease or injury caused by active conflict during WWI, WWII, or the Korean conflict to receive up to 36 months of education benefits. Contrary to the act's name, only one of the children's parents, a service member, had to have died during the previous wars. The Act to Amend Title 38 of the United States Code (1968) extended OEA to spouses of service members who died in conflict in the line of duty. According to the Veterans' Education and Employment Assistance Act (1976), the duration of the OEA benefits increased to 45 months. According to the War Orphans' Educational Assistance Act (1956), when enacted, the maximum benefit of the act was \$110 (\$1,218 adjusted for inflation for 2023 [BLS, n.d.-a]) per month, which means the maximum benefit would be \$3,960 (\$43,860 adjusted for inflation for 2023 [BLS, n.d.-a]). Due to the benefit beginning on the child's 18th birthday or completion of secondary education and ending as late as the child's 23rd birthday and based on the law, a service member must have died before February 1, 1955 (War Orphans' Educational Assistance Act, 1956). The OEA of 1956, by its nature, was very restricted, and few children of fallen service members benefited from this program. The OEA eventually expanded to encompass children of service members

who died in the line of duty in the Panama Zone, the Philippines, the Spanish–American War, Vietnam, and the Gulf War (Veterans Benefits Administration, 2007b).

c. Survivors' and Dependents' Educational Assistance

On October 15, 1976, the OEA was changed to the Survivors' and Dependents' Education Assistance (DEA). This benefit is for spouses and dependents of service members with a service-connected death or 100% rated service-connected disability or those who were missing in action, prisoner of war, or taken hostage (Veterans' Education and Employment Assistance Act, 1976).

Under the DEA, each eligible family member receives individual education benefits that do not need to be divided among family members, unlike the PGIB. The number of months of benefits that each family member receives is based on when they started using the DEA. According to Limitations on Period of Assistance Under Two or More Programs (2023), Before August 1, 2018, each family member received 45 months of education benefits; after August 1, 2018, the benefits were reduced to 36 months. With rare exceptions, children can use the benefits between the ages of 18 and 26, and spouses have ten years to utilize the DEA (MyNavy HR, n.d.-c). According to the VA (n.d.-c), the current maximum benefit is \$1,401 per month. This means that each family member could receive up to \$50,436 in 2023. Depending on the number of family members, the DEA could be the most generous VA education benefit because each family member receives an undivided 36 months (45 months prior to August 1, 2018) of benefits (VA, n.d.-c).

3. Multiple VA Educational Benefits

Occasionally, individuals can earn multiple VA education benefits. According to law, the maximum benefit that any individual can receive is 48 months, with notable exceptions. An individual who used DEA benefits before October 1, 2013, can receive up to 81 months of total education benefits from the VA (Limitation on Period of Assistance under Two or More Programs, 2023). Due to all current GI bills being 36 months long, a DEA recipient can receive a complete additional GI bill for military service or Transfer Entitlement of the PGIB.

B. POST 9/11 GI BILL

In the 7th year of the Global War on Terrorism, a new GI bill, the PGIB, was introduced in Congress. The PGIB focused on the incentive most new accessions wanted in a GI Bill, especially among military enlisted members. It greatly expanded the funding and utilization of the VA education system, which the VA had not seen in decades.

1. Expanded Pool of Beneficiaries

The PGIB brought about several changes to VA education benefits, significantly expanding access and funding for individual veterans and their families. The first change was expanding the eligibility of the pool of service members who could receive the benefit. Under the MGIB-active duty, a service member must have two continuous years of honorable active duty to receive any benefit (VA, 2023b). The requirement changed with the PGIB to include 90 days of accumulative active-duty service or 30 continuous days of active-duty service with a disability discharge after September 10, 2001. The service time is based on active duty service conducted after September 10, 2001 (VA, 2023d).

For veterans who had started using or completely exhausted the MGIB, the PGIB offered an additional 12 months of benefits. To receive the additional 12 months of education benefits, the veteran must completely exhaust benefits under the MGIB and then request a 12-month extension under the PGIB. If the veteran did not want to exhaust the MGIB completely, the veteran could switch from the MGIB to the PGIB and receive the remainder of the 36 total months under the PGIB (Army Human Resources Command, 2023).

Additionally, the PGIB expanded the beneficiary pool by offering service members the ability to transfer their benefits to their spouses or children. According to the VA (2023c), to utilize the Transfer Entitlement of the PGIB, a service member must have completed six years of military service and would agree to an additional four years of service. Once eligible, the service member can divide the 36 months of benefits amongst their spouse and dependents however the service member sees fit. Additionally, the Fry Scholarship expanded the PGIB to spouses and dependents of service members who died on active duty in the line of duty (VA, 2023c).

On July 13, 2017, the Harry W. Colmery Veterans Educational Assistance Act of 2017, better known as the Forever GI Bill, was introduced in Congress. Among other things, the act increased the amount of time a veteran had to access their PGIB benefits. Whereas they previously had to use their benefits within 15 years of discharge, they now have access to those benefits until their death. The Forever GI Bill was signed into law on August 16, 2017, and took effect on August 1, 2018 (Harry W. Colmery Veterans Educational Assistance Act, 2017).

The pool of eligible beneficiaries has expanded more under the PGIB than any other veterans' education program.

2. Benefits

If a veteran or family member is eligible for the PGIB, the next obstacle is determining the student's percentage of benefit entitlement; that percentage will affect all the veteran's PGIB benefits. As shown in Table 1, according to the VA (2023g), the benefits drop by 10% every six months less of active-duty service; for example, service members who completed 30–35 months of honorable active-duty service would be eligible for 90% of available benefits, service members who completed 24–29 months of honorable active-duty service would be eligible for 80% of available benefits, and so on. The VA further notes that the lowest available percentage is 50% for service members who completed 3–6 months of honorable active-duty service. If a service member receives a service-connected disability, the service member could receive 50% after only 30 consecutive days of active duty (VA, 2023d).

Table 1. Percentage of Maximum Post-9/11 GI Bill Benefits Based on Aggregate Length of Active Duty. Source: VA (2023g).

More than 1094 days	100%
910 to 1094 days (30 to 35 months)	90%
730 to 909 days (24 to 29 months)	80%
545 to 729 days (18 to 23 months)	70%
180 to 544 days (6 to 17 months)	60%
90 to 179 days (3 to 5 months)	50%

Several education benefits were expanded or created under the PGIB. The most significant benefit that was expanded was the monthly payment. According to VA (2023b), under the MGIB, a set monthly payment was paid to the veteran student, and they had to use this stipend to pay for required expenses for higher education. According to VA (2023d), the PGIB pays tuition directly to the school and gives the student a stipend equal to the Basic Allowance for Housing (BAH) of an E-5 with dependents for the zip code of the school location. An exception to this rule is that if a veteran takes online classes, the stipend is reduced to 50% of the average BAH of an E-5 with dependents nationwide. (VA, 2023d). The changes to the stipend were the most significant change for the PGIB, but they were not the only changes that occurred.

There are several new benefits that the PGIB offers that are way beyond what other GI bills previously offered. Another significant change is the annual book stipend of \$1,000 a year; this is paid directly to the student. The PGIB also provides a one-time \$500 stipend for students who must relocate from highly rural areas to attend higher education (VA, 2023d).

3. Spouse and Dependent Entitlements

The PGIB became the VA's first education benefit available to service members' families that did not require the death or permanent disability of the service member for dependents to access the benefit. There are two main provisions of the PGIB that provide education benefits to service members' families.

a. Transfer Entitlement

The PGIB Transfer Entitlement was the first benefit families received from the VA that did not require the service member to die or be permanently disabled. According to the VA (2023c), the Transfer Entitlement allowed service members to transfer their PGIB to their spouses or children if they met the requirements. The VA further states that the first requirement to utilize the Transfer Entitlement is that the service member must have completed at least six years but not more than 16 years of honorable military service. The second requirement is that the service member obligates an additional four years of service. If the service member fulfills these requirements, they can transfer part or the whole GI bill

to their family, and the service member can split the PGIB by month to any family member. Once transferred, the family member receives the same benefits as veterans receive with the PGIB. The VA explains that the service member's spouse may use the benefit once transferred, but a child must wait until the service member completes ten honorable YOS (VA, 2023c).

b. Fry Scholarship

The Fry Scholarship was created for family members of active-duty parents who died in the line of duty after September 11, 2001. This education benefit is like the DEA, but the family member receives the much more generous PGIB benefits. The Fry Scholarship is named in honor of Marine Gunnery Sergeant John David Fry, who was killed in combat. (VA, 2023a). The Fry Scholarship was a provision in the 2009 Supplemental Appropriations Act (Supplemental Appropriations Act, 2009); it amended the PGIB, which passed under the Supplemental Appropriations Act of 2008 (Supplemental Appropriations Act, 2008).

4. Intent and Predictions

The PGIB started as a bill, S. 22, introduced by then-Senator Jim Webb, a Democrat from Virginia. He introduced the bill on his first day as a senator on January 4, 2007 (S. 22; Post-9/11 Veterans Educational Assistance Act, 2007). It would take 18 months before the PGIB became law as part of the Supplemental Appropriations Act of 2008 (Supplemental Appropriations Act, 2008). Before the PGIB became a law, it had to go through several committees, studies, and cost analyses.

a. Prior Efforts to Expand the Montgomery GI Bill

For many years prior to the introduction of S. 22, the Post 9/11 Veterans Educational Assistance Act of 2007, which eventually became the PGIB, there had been several efforts to increase the size and scope of veterans' education benefits. The MGIB started strong, but with inflation and college tuition often expanding well beyond what MGIB benefits provided, it became gradually more challenging for veterans to utilize the benefits they had earned. Since the introduction of the MGIB in 1985, there have been

several MGIB kickers and college funds to increase the MGIB benefits. These were often used as recruitment or retention incentive packages (Veterans Benefits Administration, 2007a). For example, an MGIB Buy-Up Program implemented in 2001 allowed service members to increase their MGIB benefits by contributing a portion of their military pay. For every \$50 a service member contributed, they would receive a \$12.50 per month boost to their MGIB benefits. A service member could contribute up to \$600 a month and receive up to a \$150 per month benefit boost. Since MGIB benefits last 36 months, the benefit would pay a maximum of \$5,600 for a \$600 investment (MyNavy HR, n.d.-a). This benefit might be small, but it assisted veterans with attending college.

In 2006, the Army implemented a Transferability Pilot Program. The program only allowed soldiers to transfer their MGIBs. This program allowed each service to create a program to retain service members with critical skills. It was designed to allow spouses and children the ability to receive up to 18 months of the 36 months of MGIB benefits that the service member earned. A service member must have completed six years of military service and must serve an additional four years of military service; this requirement would later be used as the basis of the requirements to transfer the PGIB. Of the 250 soldiers who initially participated in the program, most of whom were from Force Command and U.S. Special Operations Command, 96% elected to transfer their benefits (Lay, 2009).

b. Committees, Studies, and Surveys

Before the implementation of the PGIB, several committees, studies, and surveys were conducted to determine the cost and the most effective policies for service members, veterans, and their families.

(1) CBO Report 2008

In 2008, many organizations conducted studies to analyze the benefits and costs of the recently proposed new GI bill. These studies focused on different areas of the PGIB, including service members' motivation, the effects on recruitment and retention, and the program's overall cost. The studies investigated whether modifying the existing GI bill would be effective. The three preliminary analyses of the PGIB that this study focused on were the CBO report on the cost estimation for S. 22, the Defense Manpower Data Center

(DMDC's) (2008) *2008 QuickCompass of Active Duty Members* survey, and Richard Lay's (2009) *Applying the Combinatorial Retention Auction Mechanism (CRAM) to a Cost-Benefit Analysis of the Post 9/11 Era GI Bill Transferability Benefit*.

The Orszag (2008) conducted the first CBO report on behalf of Congress. The report focused on two main areas: a preliminary estimate of the cost for S. 22 and the impact of S. 22 on recruitment and retention. These findings were based on the S.22 bill, which had been modified several times since its introduction. By the time the CBO report was published on May 8, 2008, S. 22 was essentially in PGIB's final form when it was enacted. As shown in Table 2, the preliminary cost of the PGIB would be \$51.8 billion from 2008–2018. It would have additional costs for VA personnel and information technology and decrease the cost of Department of Defense (DOD) contributions to fund education benefits for reservists. Orszag states, "In total, CBO estimates that the bill would increase discretionary spending by \$145 million over the 2009-2013 period, assuming appropriation of the estimated amounts." (p.2).

Table 2. Preliminary Estimated Cost of the Post-9/11 GI Bill.
Source: Orszag (2008).

PRELIMINARY ESTIMATE FOR S.22: POST-9/11 VETERANS EDUCATION ASSISTANCE ACT OF 2007 (ASSUMING ENACTMENT JUNE 1, 2008)													
	By Fiscal Year, in Millions of Dollars												
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2008-2013	2008-2018
CHANGES IN DIRECT SPENDING													
Estimated Budget Authority	40	680	3650	4,460	5,130	5,510	5,810	6,160	6,510	6,830	7,060	19,470	51,840
Estimated Outlays	40	680	3650	4,460	5,130	5,510	5,810	6,160	6,510	6,830	7,060	19,470	51,840
CHANGES IN DISCRETIONARY SPENDING													
Estimated Authorization Level	0	50	50	10	10	20	30	30	40	50	60	140	350
Estimated Outlays	0	40	50	10	10	20	30	30	40	50	60	130	340

The CBO study additionally focused on the recruitment and retention of military personnel. The study estimated that the introduction of the PGIB would increase recruitment by 16%, allowing recruitment bonuses to be reduced by \$5.6 billion over the

2009–2013 period. For retention, Orszag (2008) found that due to the PGIB’s generous benefits, retention would be reduced from 42% to 36%, and an increase in selective reenlistment bonuses by \$6.7 billion for the period of 2009–2013 would be needed to maintain current manpower levels. The CBO determined that the net negative effect of the PGIB on retention would be \$1 billion over the five years after enactment (Orszag, 2008).

(2) DMDC (2008) QuickCompass Manpower Survey

In 2008, the DMDC conducted a comprehensive survey throughout the DOD, with 9,290 participants from every demographic, every DOD branch, and every rank (E1–O6) and YOS. The DMDC (2008) stated, “The topic covered in the 2008 QuickCompass of Active-Duty Members are retention and perception of changes to military education benefits” (p. 1). There were 24 questions split into three main areas: Background Information, Education Benefits, and New GI Bill. Several interesting results came from this survey concerning service members and their families’ aspirations towards the MGIB and each proposed provision of the PGIB. As shown in Appendix A, there was a 95% interest in the ability to transfer GI Bill benefits to spouses and children. The only result with greater interest, at 96%, was related to an increase in the GI Bill’s dollar value. This survey also showed that service members wanted the overall benefit to increase and were willing to commit to an additional service obligation to obtain the expanded benefits (DMDC, 2008).

Of the proposed and surveyed benefits, the benefit that did not become part of the final PGIB benefits was using the PGIB to pay off existing federally funded student loans; 80% of service members said that would be important to them (DMDC, 2008). It is unknown why this provision was taken out of the final PGIB. However, if this provision was enacted, it could have been very beneficial but would have been very complicated to enforce. It would have impacted the DOD, the VA, the Department of Education, and the U.S. Treasury. The DOD first verifies required service completion, the VA transfers funds to the Treasury (potentially indirectly through the federal student loan servicer), and the Department of Education oversees the funds because they are being used for student loans. In addition to this complication, student loan repayments through the GI Bill would hamper

recruitment and retention efforts utilizing student loan repayment programs. In the future, this provision might be added to the PGIB.

The DMDC (2008) *QuickCompass of Active Duty Members* was a great snapshot of what service members wanted out of the education benefits that they earned. It is unknown what impact this had on drafting the final version of the PGIB, but most of the provisions important to service members were in the final bill. For the most part, the DMDC (2008) survey showed that the final PGIB was what service members wanted in education benefits.

(3) Lay's (2009) Combinatorial Retention Auction Mechanism

Richard Lay (2009) conducted his thesis on the PGIB prior to its enactment. His topic was *Applying the Combinatorial Retention Auction Mechanism (CRAM) to a Cost-Benefit Analysis of the Post 9/11 Era GI Bill Transferability Benefit*. His thesis focused on five retention incentive analyses: cash-only SRBs, auction characteristics, cash SRBs, Universal Incentive Package (UIP) auction, and CRAM. Lay used data he collected from a survey to inform his thesis. The data was narrowly focused on three population groups in the Navy: Air Traffic Controllers, Fire Controlman (Aegis), and Fire Controlman (Non-Aegis; Lay, 2009).

The first method that Lay (2009) used to determine the valuation of the Transfer Entitlement was the cash-only SRB. It determined how much of the SRB individuals were willing to give up. He found that, when accounting for outliers, individuals were willing to give up \$6,814 in SRB funds to be able to transfer their GI Bill benefits. These results were spread out, and 43% of individuals gave no value to the ability to transfer benefits (Lay, 2009).

Lay (2009) then assessed the cost-effectiveness of universal GI Bill Transferability. He determined what the SRB cost should be based on the valuation of the Transfer Entitlement. His first assessment focused on individuals who valued the Transfer Entitlement at \$0. Believing that individuals find value in Transfer Entitlement but are unwilling to give up money, he reassessed the valuation to \$2,032, \$3,100, and \$4,508 of the Transfer Entitlement usage rate of 0%, 50%, and 100% (Lay, 2009).

The third method that Lay (2009) used to assess the valuation of the Transfer Entitlement was CRAM. According to Lay, “This mechanism only provides GI Bill Transferability to those sailors who value the benefit more than the Navy’s expected cost” (p.52). Lay found that the CRAM method gave a lower valuation for the Transfer Entitlement than the cash-only SBR method.

Lay’s (2009) thesis made it evident that individual service members highly valued the Transfer Entitlement and that there was no clear consensus on the entitlement’s cost or perceived value.

c. Legislative Process

In 2007, two bills, one from the Senate (S. 22; Post-9/11 Veterans Educational Assistance Act, 2007) and one from the House (H.R. 2702; Post-9/11 Veterans Educational Assistance Act, 2007), were introduced to create a new GI Bill. These two bills and a 2008 House bill (H.R. 5740; Post-9/11 Veterans Educational Assistance Act, 2008) were sent to the Committee of Veterans Affairs. These bills were assessed and compiled into an amendment to the Supplemental Appropriations Act of 2008. The Supplemental Appropriations Act of 2008 was signed into law on June 30, 2008, and became Public Law 110–252 (Supplemental Appropriations Act, 2008).

Then-Senator Jim Webb of Virginia introduced the first bill to attempt to create a new GI Bill. Webb graduated from the Naval Academy in 1968, earning a commission in the Marine Corps during the Vietnam War. He served in the Marine Corps from 1968 to 1972, and from 1987 to 1988, he became the Secretary of the Navy. He was elected to the U.S. Senate in 2006 and was sworn in on January 3, 2007 (Biographical Directory of the United States Congress, n.d.-b). On January 4, 2007, Webb introduced the first bill of his Senate career, S. 22 – Post 9/11 Veterans Educational Assistance Act of 2007, which would later become the PGIB. On January 4, 2007, S. 22 was read twice and referred to the Committee on Veterans’ Affairs. The committee met the following year on May 7, 2008 (Post-9/11 Veterans Educational Assistance Act, 2007).

Representative Robert Scott of Virginia introduced the second bill that attempted to create a new GI Bill. Scott was in the U.S. Army Reserve from 1970 to 1974 and then

the Massachusetts Army National Guard from 1974 to 1976. He was elected to the U.S. House of Representatives in 1993 and, as of 2023, is still serving in Congress (Biographical Directory of the United States Congress, n.d.-a). Scott introduced H.R. 2702, the Post 9/11 Veterans Educational Assistance Act of 2007, in the House on June 13, 2007. This bill was referred to the House Committee on Veterans Affairs on the same day. On June 20, 2007, it was referred to the Subcommittee on Economic Opportunity (Post-9/11 Veterans Educational Assistance Act, 2007). The bill did not go beyond the committees, but a new bill was introduced the following year.

Representative Harry E. Mitchell of Arizona introduced the third bill that attempted to create a new GI Bill. Mitchell had no military career and was elected to the House of Representatives in 2006. H.R. 5740, the Post 9/11 Veterans Educational Assistance Act of 2008, was introduced on April 9, 2008. This bill was referred to the House Committee on Veterans Affairs on the same day. On April 11, 2008, it was referred to the Subcommittee on Economic Opportunity (Post-9/11 Veterans Educational Assistance Act, 2008).

The fourth bill that attempted—and succeeded—to create the PGIB was H.R. 2642, the Supplemental Appropriations Act of 2008. This bill did not initially have the PGIB when it was introduced on June 11, 2007. The bill added the provisions of the PGIB when the House and Senate were resolving the amendments that were part of H.R. 2642. The House approved the amendment to add the PGIB to H.R. 2642 on May 15, 2008, with a vote of 227–196. This was only eight days after the Senate Committee on Veterans’ Affairs hearing on S. 22. The Senate approved the amendment to add the PGIB on May 22, 2008, with a vote of 75–22. The House voted on and approved the final resolved bill on June 19, 2008, with a vote of 416–12, and the Senate did so on June 26, 2008, with a vote of 92–6. It was presented to former President George W. Bush on June 27, 2008, and signed into law on June 30, 2008. The PGIB portion of the bill took effect on August 1, 2009 (Supplemental Appropriations Act, 2008).

5. Implementation

The PGIB was the first new GI Bill to be implemented in 24 years, and unlike MGIB, the PGIB would take effect immediately and be retroactive to 9/11. Several steps were needed to ensure an efficient and effective implementation of the PGIB.

a. *Memorandums and Instructions*

The first step in implementing the PGIB was to create a DOD instruction on implementing the new GI Bill. The first significant document created to instruct the policies of enacting the PGIB was the *Directive-Type Memorandum (DTM) 09–003: Post-9/11 GI Bill*; the memorandum was signed on June 22, 2009. The memorandum’s purpose was to “establish policy, assign responsibilities, and prescribe procedures under chapter 33 of title 38, United States Code (U.S.C.) for carrying out the Post-9/11 GI Bill” (Carr, 2009, p. 1). The memorandum additionally established the policy for authorizing the transferability of education benefits (Transfer Entitlement). This memorandum laid the groundwork for how the PGIB would work, from verification of service to which organization is responsible for each aspect of ensuring that the veterans who earn the benefits receive their benefits. One notable part of DOD policy in the memorandum is that the secretary of defense can lower the Transfer Entitlement to 18 months. Since implementation, no secretary of defense has exercised that option. This memorandum took effect immediately and was intended to be converted into a DOD instruction within 180 days of being signed (Carr, 2009).

Though the DTM 09–003 was intended to be superseded by a DOD instruction within 180 days of being signed, it was not superseded or canceled until DOD Instruction 1341.13 was issued on May 31, 2013. The instruction utilized a significant portion of the memorandum and cleared up a few issues and concerns that had arisen in the four years the PGIB was in effect. Additionally, the policy removed the option for the secretary of defense to reduce the number of months that could be transferred. The policy was updated again on October 25, 2022, to implement new changes to the PGIB and to comply with DOD Instruction 5025.01, which stated that if the instruction were not reissued, canceled,

or certified within five years, it would expire effective May 31, 2023 (Office of the Under Secretary of Defense for Personnel and Readiness, 2022b).

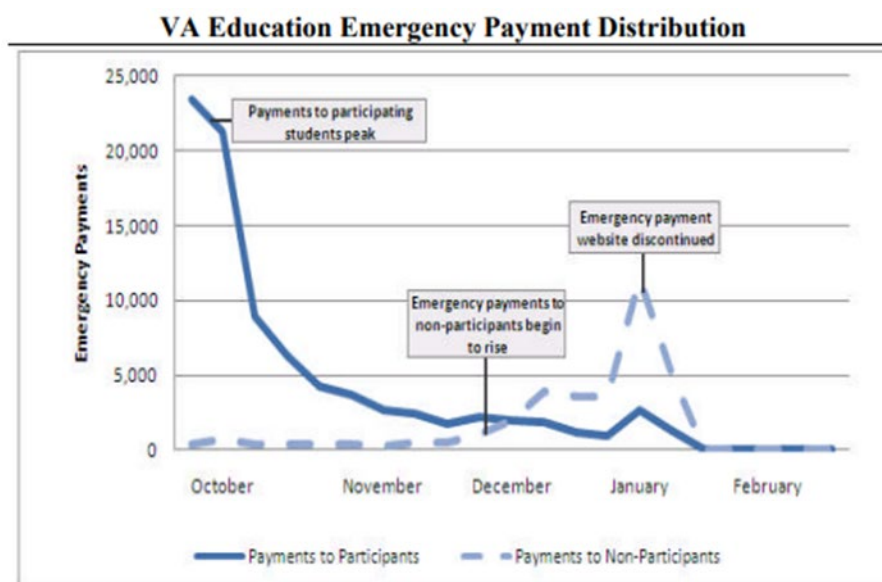
b. Rollout of the Post 9/11 GI Bill

The PGIB program was initiated in August 2009. It was seen as a new age for veterans. It was soon discovered during the initial rollout that there would be delays in PGIB benefits for a few months. This was due to the monumental increase in complexity of the VA education system and the significant backlog. According to the VA Office of Inspector General, Office of Audits & Evaluations (2010), the VA was initially unable to pay monthly stipends to the veterans using the PGIB. According to the VA, “The VA issued 122,000 emergency payments worth \$356 million for students facing delayed payments during this time.” (p.1). Due to inadequate controls, this created an additional issue. Several ineligible recipients received emergency payments. The VA found that it had

inappropriately provided 35,000 emergency payments totaling 103 million to ineligible military service members and veterans who did not participate in the VA’s education program. VA also provided 2,700 emergency payments worth \$8 million to service members enrolled in VA education programs but did not meet VA criteria for emergency payments. (p. 3)

Figure 1 shows that in October 2009, the number of emergency payments peaked. However, by December, most emergency payments were repaid by the PGIB benefits, but the emergency payments to non-participants began to rise until the emergency payment website was discontinued. The VA predicted from the erroneous payments and increases in administrative burdens a loss of \$87 million (VA Office of Inspector General, Office of Audits & Evaluations, 2010).

By the end of the year, most of the issues had been resolved, and all payments to students were issued, with a few exceptions. Over the following years, there were a few issues and concerns, but the VA took care of each to the best of its abilities.



Source: VBA emergency payment records

Figure 1. Effects of Implementation of the PGIB. Source: VA Office of Inspector General, Office of Audits & Evaluations (2010).

6. Usage and Cost

In 2008, before the PGIB was enacted, the total VA education benefits for post-secondary education obligated \$2.89 billion of funds, according to a National Center for Education Statistics report. The following year, on August 1, 2009, the PGIB benefits began being received. The report states that by the end of 2009, the VA's total expenditure for post-secondary education increased by 32.6%, or \$945 million, over the previous year. This was primarily due to the significant expansion of student benefits and costs to the VA. In 2010, the first full year that the PGIB benefits were offered, there was a significant expansion of participants in the PGIB, as shown in Table 3; in fact, there was an increase of over tenfold from the previous year. This caused VA obligations for post-secondary education to expand significantly to \$8.04 billion, an increase of 109% over the previous years, as shown in the National Center for Education Statistics report. In 2010, the PGIB took up 69.0% of the total education benefits paid out by the VA; in 2021, this jumped to 86.8% (National Center for Education Statistics, n.d.).

Table 3. PGIB Obligation and Usage Since Enactment. Adapted from Dortch (2021), VA (n.d.-d), and BLS (n.d.-a).

Year	Obligations (\$ in thousands)	Adjust for inflation (\$ in thousands; 2023)	PGIB Participation	Avg Benefit per Participant (\$)	Adjust for inflation (\$; 2023)
2009*	162,053	229,397	34,393	4712	6670
2010	5,542,843	7,730,650	365,640	15159	21143
2011	7,656,490	10,371,340	555,329	13787	18676
2012	8,476,227	11,285,260	646,302	13115	17461
2013	10,184,499	13,359,040	754,529	13498	17705
2014	10,754,649	14,000,990	790,408	13606	17714
2015	11,234,014	14,519,130	790,507	14211	18367
2016	11,583,408	14,666,420	790,090	14661	18563
2017	11,056,959	13,710,680	755,476	14636	18148
2018	10,673,744	12,987,420	708,069	15074	18342
2019	10,748,939	12,748,940	714,346	15047	17847
2020	10,108,335	11,863,090	657,927	15364	18031
2021	9,141,053	10,022,660	610,009	14985	16430

The education benefits paid by the VA came from three different programs: the DEA, the PGIB Transfer Entitlement, and the Fry Scholarship. In 2021, 290,145 students received VA education benefits; of those students, 34.7% were spouses or children of veterans or service members. (VA, n.d.-d). Before 2009, the DEA was the only program offering VA education benefits to family members. As shown in Table 4, the DEA greatly expanded from 2000 to 2010, then started to fall off. The beginning stages of the Global War on Terrorism could explain this. From 9/11 to the end of 2011, 5,070 service members died due to hostile actions. From 2011 to 2022, 478 service members died due to hostile actions (Defense Casualty Analysis System, n.d.). In 2008, the DEA funded \$434 million in education benefits; by 2021, the DEA funded \$1.12 billion in education benefits.

Table 4. DEA Obligation and Usage. Adapted from National Center for Education Statistics (n.d.), VA (n.d.-d), & BLS (n.d.-a).

Year	Obligations (\$ in thousands)	Adjust for inflation (\$ in thousands; 2023)	DEA Participation	Avg Benefit per Participant (\$)	Adjust for inflation (\$; 2023)
1970	47,900	367,904			
1980	194,147	687,706			
1990	106,217	242,672			
2000	137,713	241,940	5,763	23,896	41,982
2008	434,733	632,142	62,390	7,543	10,969
2009	469,360	664,412	63,469	8,144	11,529
2010	507,294	707,528	89,696	8,802	12,277
2012	437,085	581,935	90,657	7,584	10,098
2013	464,862	609,761	87,707	8,066	10,581
2014	516,934	672,973	90,789	8,969	11,678
2015	493,225	637,457	91,755	8,558	11,061
2016	520,482	659,015	96,762	5,379	6,811
2017	553,128	685,881	100,275	5,517	6,840
2018	616,276	749,861	109,760	5,615	6,832
2019	861,152	1,024,408	128,151	6,720	7,994
2020	1,042,921	1,223,966	151,825	6,869	8,062
2021	1,118,540	1,226,417	167,567	6,675	7,319

A 2017 CBO report on the PGIB Transfer Entitlement and Fry Scholarship found that children, on average, receive \$17,400 per year in education benefits, and spouses receive, on average, \$11,400 per year in education benefits. As of 2021, The total number of children receiving the PGIB was 94,842, and 27,718 spouses were receiving benefits. Adjusting the values for inflation, the total Transfer Entitlement of the PGIB funded \$2.22 billion, or 22% of PGIB funding in 2021 (CBO, 2019). This, combined with the DEA funding for 2021, would mean that spouses and children of veterans and service members received an aggregate of \$3.34 billion in education funds, or 27.9% of the total VA education funds awarded that year (National Center for Education Statistics, n.d.).

7. Additional Effects

The PGIB has had several effects on the military, intentional and unintentional; some impacts are underestimated, and others are overestimated.

a. Recruitment and Retention

One of the objectives of the PGIB was to increase recruitment and retention in the military. According to the CBO (2019) report, the PGIB increased recruitment but decreased retention rates for service members after the first enlistment. The CBO further states that to mitigate the drop in retention, the PGIB has a Transfer Entitlement to allow service members who have completed six YOS and obligate an additional four years to transfer benefits to family members. This provision was enacted to encourage continuation in the service; most service members after 10 YOS will remain until retirement at or above 20 YOS. According to the CBO (2019),

such benefits might motivate service members to leave the military earlier than they would have otherwise; the Department of Defense argued during the drafting of the legislation that the ability to transfer benefits to dependents would be critical to retention goals. However, that option appears to have had little effect (p. 19).

Only one major study has been conducted on Transfer Entitlement of the PGIB on retention rates. A 2017 RAND study concluded that the PGIB had significantly negatively impacted retention more than the MGIB (Wenger et al., 2017). The CBO (2019) found that “increasing the number of recruiters and offering enlistment and re-enlistment bonuses appear to be much more effective in attracting and keeping the desired number of personnel” (p. 19). This implies that there are better alternatives to increasing retention other than the PGIB Transfer Entitlement.

b. Civilian Life

It is well known that a person who receives higher education will, on average, receive higher pay at every stage of their career. According to the Social Security Administration (2015),

Men with bachelor's degrees earn approximately \$900,000 more in median lifetime earnings than high school graduates. Women with bachelor's degrees earn \$630,000 more. Men with graduate degrees earn \$1.5 million more in median lifetime earnings than high school graduates. Women with graduate degrees earn \$1.1 million more (para. 1).

Utilizing their PGIB benefits, service members and their families could earn significantly more over a lifetime than they could without the benefits.

Enlisted service members are often the ones who benefit the most from the PGIB and other education benefits. According to a 2017 RAND study, 93% of all service members who utilize their benefits are enlisted (Wenger et al., 2017). Additionally, according to the DMDC, 78% of enlisted service members do not have an associate or higher degree (DMDC, 2008). This means most veterans and their families eligible for the PGIB use it for a bachelor's degree.

The PGIB could also blunt the shock for service members transitioning from military to civilian life. Throughout American history, returning war veterans occasionally found it difficult to return to civilian life, especially during the Vietnam era. With relatively small veterans' education benefits and minimal assistance with job placement, many veterans struggled with transitioning from military to civilian life. Since then, the U.S. government has continuously expanded the VA and its benefits to prevent the disaster post-Vietnam veterans face. All of these efforts to expand veterans' benefits have paid dividends. On average, over the last 20 years, the veterans unemployment rate has been 12.7% lower than the non-veteran counterpart, with the July 2023 rate being 2.8% for veterans and 3.4% for non-veterans (seasonally adjusted; BLS, n.d.-b). Additionally, wages for veterans are, on average, higher than non-veterans. In 2017, the average income of a household headed by a veteran was \$88,700 per year, and that of a non-veteran was \$76,100 per year (Bennett, 2019). The increased benefits veterans receive will likely motivate potential recruits to join the military to enjoy veterans' benefits in the future.

c. Unintended Consequence

There is a potential for an unintended consequence of the Transfer Entitlement of the PGIB. Due to a significant portion of new enlisted recruits joining the military for education

benefits, and 79% of recruits have relatives who have served (Army Recruiting Command, n.d.). This could create an issue in which there is an increase in veterans' children utilizing the PGIB Transfer Entitlement rather than entering the service out of family obligation or the incentive of the PGIB. In the long term, this would potentially negatively affect recruitment, but a potential benefit could be a reduction in the military–civilian gap. This would potentially encourage non-military family children to join the service, which could increase diversity in the services.

8. Supreme Court Case

The opt-out feature of the PGIB required veterans to give up their MGIB to receive PGIB benefits. Veterans who had already used education benefits under the MGIB and then opted into the PGIB would receive a maximum of 36 months of benefits of the total combined benefits. In contrast, previous laws on multiple GI bills aggregated benefits to no more than 48 months. This 36-month cap was unique in the history of the GI Bill but had never been challenged until Jim Rudisill sued to receive the full 48 months of the aggregate benefits of the MGIB and the PGIB (*Rudisill v. McDonough*, n.d.).

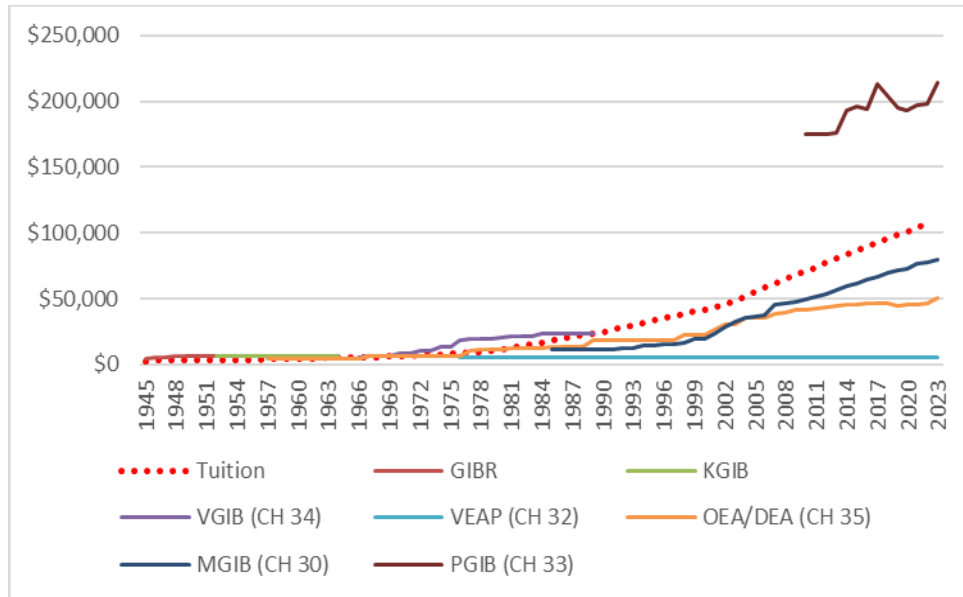
According to Quinn (2023), Rudisill, an Army veteran who enlisted from 2000–2002 and received an honorable discharge, began to use a portion of the 36 months of the PGIB. Quinn adds that Rudisill enlisted in the Army National Guard for a second time and was deployed to Iraq from 2004 to 2005; then, he returned and resumed his studies using a total of 25 months and 14 days of MGIB benefits. He obtained a commission in the Army and served from November 2007 to August 2011, and then received an his third honorable discharge. Quinn states that “Interested in a fourth tour, as an Army chaplain, Rudisill was admitted to the Yale Divinity School and sought to use assistance from the Post-9/11 GI Bill to pay for his graduate education.” (para. 8). Rudisill earned the PGIB and having used just over 25 months of the MGIB, he believed he was still entitled by law to 22 months and 16 days of the PGIB due to a maximum aggregate of 48 months of multiple GI Bills. Quinn further states that based on VA policy and its interpretation of the law, he would only be entitled to 10 months and 16 days, a loss of 12 months of benefits. After several appeals and

decision reversals, finally, Rudisill petitioned the Supreme Court for a ruling, and on June 26, 2023, the Supreme Court agreed to hear the case (Quinn, 2023).

If the Supreme Court rules in favor of Rudisill, it could potentially reverse all of the opt-out features of the PGIB and give an additional 12 months of PGIB or MGIB based on what benefits the veteran initially used. This ruling would not affect spouses or children because the MGIB is non-transferable, with a few sporadic exceptions. This case could have long-term ramifications and affect any new GI Bill that gets established.

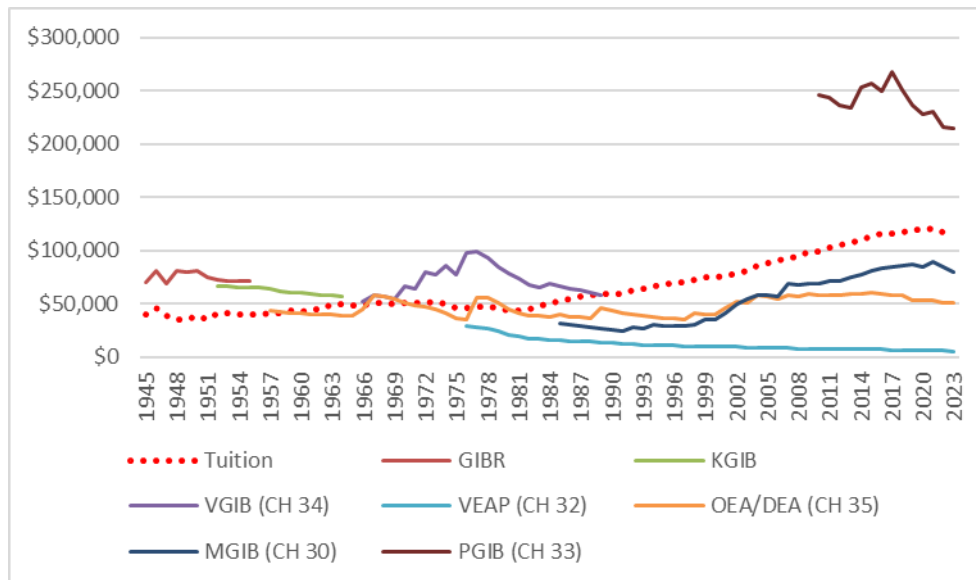
C. COMPARING GI BILLS

In the last 79 years, the GI Bill has expanded and taken on different forms to service veterans from different eras and their family members. As shown in Figure 2 and Figure 3, the PGIB is significantly larger than any other GI bill that preceded it. When accounting for inflation, the maximum benefit paid out for the PGIB in 2022 was \$214,000, utilizing the full 36 months of benefits; in comparison, the MGIB in 2022 had a maximum possible benefit of \$84,000. Though the total compensation for the PGIB is individualized and could have a large distribution of amounts, for nearly all cases, the PGIB is financially better for service members than the MGIB.



Adapted from National Center for Education Statistics (2022), VA (n.d.-a), VA (n.d.-b), VA (n.d.-c), P.L.s 89–222, 94–502, 95–202, 96–466, 98–543, 101–237, 105–206, 106–416, 107–103, 108–183, and 109–461.

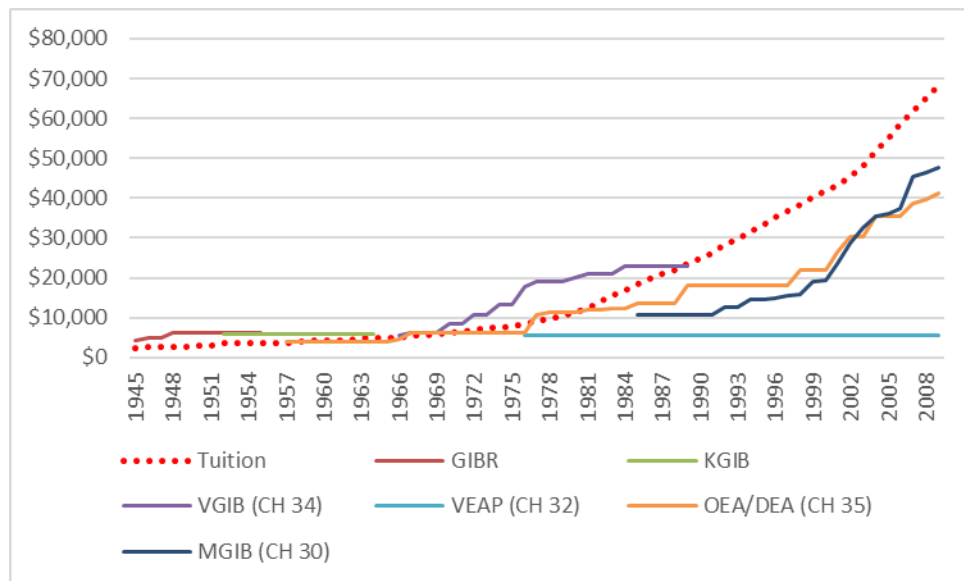
Figure 2. Maximum (per Student) Nominal Value of GI Bills: 1945–2023.



Adapted from National Center for Education Statistics (2022), VA (n.d.-a), VA (n.d.-b), VA (n.d.-c), P.L.s 89–222, 94–502, 95–202, 96–466, 98–543, 101–237, 105–206, 106–416, 107–103, 108–183, & 109–461; and BLS (n.d.-a).

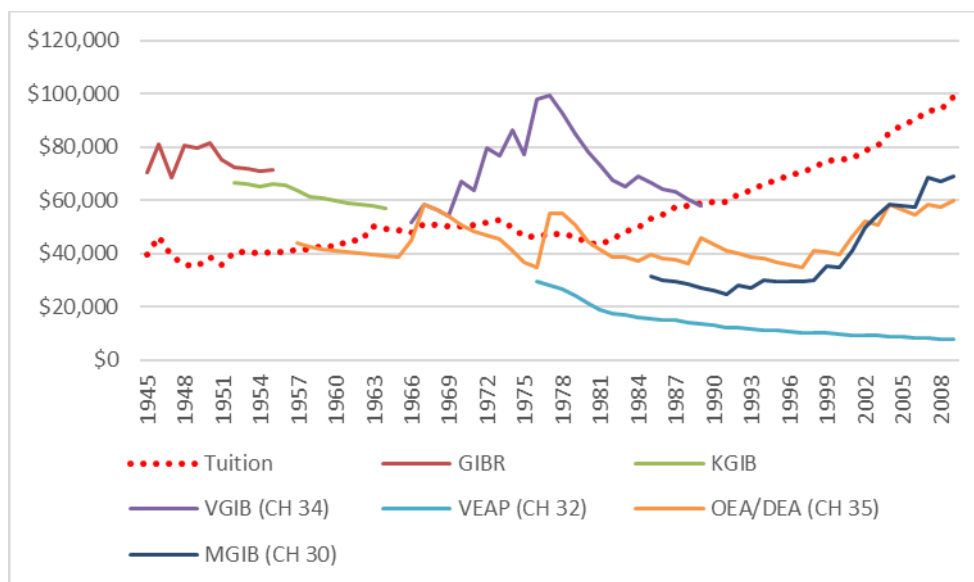
Figure 3. Maximum (per Student) Real Value of GI Bills: 1945–2023.

Before the enactment of the PGIB, the GI Bill was gradually becoming weaker. As shown in Figure 4 and Figure 5, tuition was outpacing the expanding education benefits of the GI Bill. By 1990, no GI bill could fully fund the average tuition in the United States. This meant veterans using a GI Bill had to find additional funding for tuition and other school and living expenses. The veterans often took out student loans to ensure they could cover their expenses.



Adapted from National Center for Education Statistics (2022), VA (n.d.-a), VA (n.d.-c), and P.L.s 89-222, 94-502, 95-202, 96-466, 98-543, 101-237, 105-206, 106-416, 107-103, 108-183, and 109-461.

Figure 4. Maximum (per Student) Nominal Value of GI Bills: 1945–2008.



Adapted from National Center for Education Statistics (2022), VA (n.d.-a), VA (n.d.-c), P.L.s 89–222, 94–502, 95–202, 96–466, 98–543, 101–237, 105–206, 106–416, 107–103, 108–183, & 109–461; and BLS (n.d.-a).

Figure 5. Maximum (per Student) Real Value of GI Bills: 1945–2008.

Except for the VEAP and the PGIB, most GI bills are relatively close to the same maximum value when accounting for inflation. As shown in Figure 3 and Figure 5, tuition has outpaced inflation over the past 40 years; this is one of the reasons why a new GI Bill was needed. The PGIB expanded the education benefits enough to ensure that veterans and their families who were full-time students and had 100% benefits would not need supplemental income to fund their education experiences.

D. PRIOR RESEARCH AFTER IMPLEMENTATION OF THE PGIB

Only a few studies have focused on retention and Transfer Entitlement following the implementation of the PGIB Transfer Entitlement. The following are the in-depth studies that were found on the issues of retention and the Transfer Entitlement for the PGIB.

1. Congressional Research Service Study, 2014

In 2014, the CRS conducted a study on the PGIB to determine the program’s effectiveness and issues in the first five years of its implementation. Dortch (2014) starts by stating the four main goals of the PGIB: “(1) providing parity of benefits for reservists

and members of the regular armed forces, (2) ensuring comprehensive education benefits, (3) meeting military recruiting goals, and (4) improving military retention through transferability of benefits” (p. 2). Dortch then focuses on what benefits individuals receive and key issues that have arisen since the enactment of the PGIB. She then further discusses six key issues that the PGIB was initially having; these were: benefits for out-of-state versus in-state tuition and fees, quality of education programs, recovery of overpayments, transferability for former service members, benefits for business start-ups and entrepreneurs, and qualifying active-duty service (Dortch, 2014).

In 2014, the PGIB paid up to the highest in-state public university tuition, whether students attended private, for-profit, or public universities. This could have led to a shortfall for veterans and their families who attended out-of-state universities since most public universities’ out-of-state rates are much higher than their in-state rates (Dortch, 2014). Since the 2014 CRS report, many states have adopted an in-state tuition rate for veterans and their families at public universities. Additionally, suppose veterans cannot utilize in-state tuition rates. In that case, there is the option of the Yellow Ribbon Program, which pays the difference in the tuition rate if veterans qualify.

The second key issue in the report was the quality of education programs. Dortch (2014) discussed how the taxpayer-funded PGIB should positively impact the veterans and their families using it. There should be oversights to ensure that the universities receiving the money effectively educate the veterans and their families (Dortch, 2014). This issue has since been tackled, with many for-profit colleges closing. Additionally, a 90/10 rule requires colleges to obtain a minimum of 10% of funds from non-federal education assistance (Office of Postsecondary Education, 2022). This has shut down several for-profit colleges that rely primarily on veterans’ benefits.

The third key issue that Dortch (2014) raised was overpayment recovery. In the early years of the PGIB, there was no clear guidance on dealing with student overpayments or collecting debt (Dortch, 2014). Since then, the VA has taken a more active role in collecting overpayments. When a service member does not pay back the overpayment, the VA will first collect the debt from any remaining VA benefits and notify federal and private credit reporting agencies. After 120 days, if the debt is not resolved, the U.S. Treasury is

notified. The VA further states, the U.S. Treasury may take action using the service member's tax refund, Social Security benefits, federal or state salary, or retirement benefits. If this does not resolve the debt, it could be referred to a private collection agency (VA, 2021b).

The fourth key issue that Dortch (2014) discussed is transferability for former service members. Veterans who had already retired or separated from the service before the PGIB was enacted were not offered the opportunity to transfer their benefits to their families (Dortch, 2014). This rule has not changed, and with the 15th anniversary of the PGIB, all benefits earned prior to that date will have expired, and this issue will become a moot argument.

The fifth key issue Dortch (2014) discussed is the benefits for business start-ups and entrepreneurs. Dortch discussed that veterans and their families cannot use the benefits outside of education and training programs. Those wishing to use PGIB benefits to start a business or invest cannot do so (Dortch, 2014). As of 2023, this law has not been changed.

The sixth key issue Dortch (2014) discussed what qualified as active-duty time. The report discussed how guard and reserve service members have issues with active-duty time requirements for the PGIB due to the definition of active duty under Title 10 of the U.S. Code. Dortch argued that the definition should include all active-duty service members under Title 10 (federal) and National Guard service members under Title 32 (state) service members. The VA has since modified the requirement for PGIB to Title 10 and Title 32 and removed the requirement for guard and reserves for non-training active-duty time. The only minimum requirement for reserve and guard service members is 90 days of active duty accumulated after 9/11 or 30 days consecutive for a service-connected disability.

Of the six issues in the CRS report, as of 2023, three have been resolved, out-of-state tuition has been partially resolved, transferability for former service members is effectively moot, and business start-ups and entrepreneurs have seen no resolution.

2. RAND Study, 2017

In 2017, the RAND Corporation studied the benefits of the PGIB on the military. The study authors, Wenger et al. (2017), wanted to determine the efficiency and effectiveness of the PGIB. Wenger et al. focused on three main areas: the impact of military service and education benefits on education attainment and civilian earnings, the perspectives of recruits regarding their education benefits, and the perspective of colleges' military and veteran student offices regarding military education benefits. The authors additionally assessed a hypothesis concerning increases in recruitment and retention in the military due to provisions in the PGIB (Wenger et al., 2017).

The first area of focus for the Wenger et al. (2017) study was the impact of military service and education benefits on education attainment and civilian earnings. The findings showed overwhelmingly that the higher educated the recruits are, the higher the quality the recruits become in the military. After leaving the military, the more educated veterans are, the higher their earnings are in the civilian world. The study found that 80% of high school enlistees and 87% of late joiners listed money for education as their primary motivation for enlisting. Wenger et al. additionally found a 1% drop in retention of service members, though the expectation was a 3–5% drop; this suggested that the transfer option was improving retention.

The second area of focus for the Wenger et al. (2017) study was on the perspectives of recruits on military education benefits. This focused on the individual recruits and their motivation to join the military. It looked at the recruits' knowledge of the PGIB and how much that influenced their decision to join. Wenger et al. found that when surveyed, recruits' decisions to join the military fell into three nearly equal categories. The first group knew they wanted to join the military from a young age. The second group decided in high school as future employment prospects loomed. The third group decided after exiting high school and attempting and struggling to start jobs or go to college. Wenger et al. also found no notable timing patterns for decision-making; it was common across branches, geographic locations, and gender. They also found that recruits knew of the basics of the PGIB but did not know the details (Wenger et al., 2017).

The third focus of the Wenger et al. (2017) study was the perspective of college, military, and veteran student offices on military education benefits. The authors interviewed eight student advisors in the colleges' military and veteran student offices. The effort was to determine the effectiveness of the GI bills, especially the PGIB and the state of veterans attending college. They found that the PGIB is very complex and challenging to fully understand, especially for service members and veterans who have never attended college before using the PGIB. The authors also found that the Transfer Entitlement was one of the most challenging parts of the PGIB, and many service members and families were confused about the procedure and benefits of the Transfer Entitlement. They also found that transition classes were assisting soon-to-be veterans in how to operate the GI Bill they chose and its procedures. However, several advisors suggested that the classes were inadequate to prepare service members to transition into students (Wenger et al., 2017).

Wenger et al. (2017) researched the recruitment and retention impacts of the PGIB. They attempted to determine the magnitude of increases or decreases in recruitment and retention due to the enactment of the PGIB. There was an expectation that recruitment would increase when the PGIB was enacted. However, retention would fall due to service members wanting to utilize their education benefits as soon as possible. To mitigate this, the Transfer Entitlement was expected to increase retention enough to balance the expected drop due to service members separating after the first enlistment. Additionally, this would have the consequence of increasing the proportion of service members with families. There was an expectation that service members with families would be more mature and higher performers (Wenger et al., 2017).

The first research for the study was conducted on the quality of new accessions. Wenger et al. (2017) expected the recruits' quality (scoring over 50 on the Armed Services Vocational Aptitude Battery) would increase. The authors found a positive effect on the quality of recruits for active duty and reserves, but the improvement was more prominent in the reserves. According to Wenger et al., "For example, about 70 % of the enlistees, on average, are of high quality. A 1.5- to 3.5 % point increase is not negligible" (pp. 66-67). The data was collected prior to and after the enactment of the PGIB. This increase shows

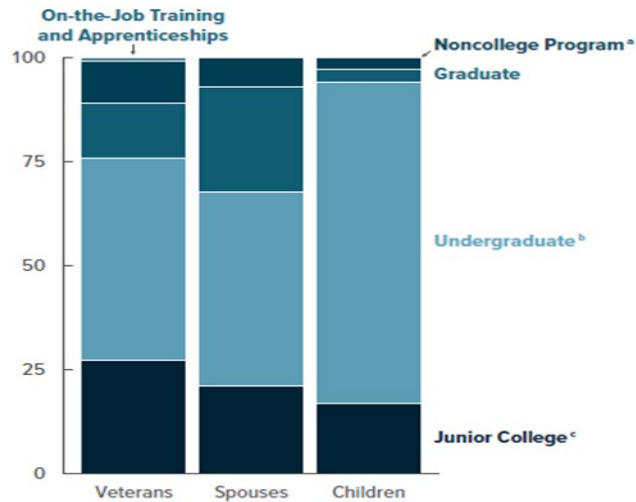
that the quality of new accessions into the military is potentially affected by the PGIB (Wenger et al., 2017).

The second research for the study was conducted on retention. There was an expectation that there would be a drop in reenlistment rates. The authors found that reenlistment rates dropped by 1% to 3%. There was an expectation that the requirements to transfer the PGIB would have a less negative effect on retention among service members with families than those without families, increasing the proportion of service members with families to the rest of the military population. The authors found that service members with families were less affected by the drop in retention rates due to the implementation of the PGIB than service members with no family, nearly cutting the loss of retention by half (Wenger et al., 2017).

This study shows the effect that the PGIB has on accession and retention. Additionally, the ability to utilize Transfer Entitlement affects the retention rates of service members with families near or above the required six YOS. These effects are averse to retention and positive for recruitment.

3. Congressional Budget Office Study, 2019

The CBO (2019) studied the PGIB's beneficiaries, choices, and costs. The CBO report focuses on what benefits are being used, who is using the benefits, and the effectiveness of accomplishing the goals of the PGIB. The CBO found that in 2018, 505,000 veterans, 31,300 spouses, and 92,700 children were using the PGIB. As shown in Figure 6, most of the education benefits go towards attending 4-year undergraduate schools. Figure 7 shows the distribution of the types of colleges beneficiaries use. Most benefits are paid to public universities (CBO, 2019).



Source: Congressional Budget Office, using data from the Department of Veterans Affairs.
a. Primarily trade and technical schools.
b. Refers to four-year college programs.
c. Refers to two-year programs.

Figure 6. Type of Education Chosen under the Post-9/11 GI Bill by Beneficiary Type, 2016. Source: CBO (2019).

For-profit schools accounted for a substantial share of the programs attended by veterans and spouses under the Post-9/11 GI Bill. By contrast, most service members' children used the benefit to attend a public college or university.

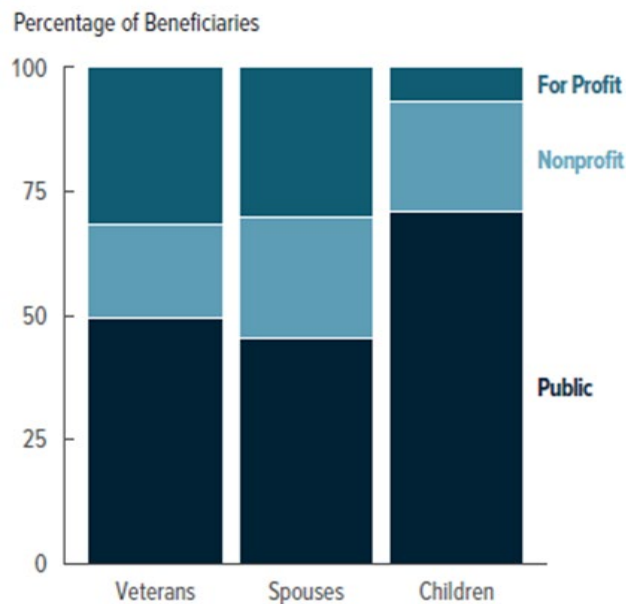


Figure 7. Type of Institution Attended under the Post 9–11 GI Bill by Beneficiary Type, 2016. Source: CBO (2019).

The next area of focus was on the cost of the PGIB. The program's cost rose consistently until 2014, when it steadied at around \$11 billion, as shown in Figure 8. This was a significant increase over the program's expected cost estimated by the CBO in 2008. In 2008, the CBO estimated the cost of the PGIB by 2014 to be \$5.81 billion. The actual cost was nearly double the estimate. The CBO stated that the average cost of the PGIB was \$17,800 for veterans, \$11,400 for spouses, and \$17,400 for children, as shown in Figure 8 (CBO, 2019).

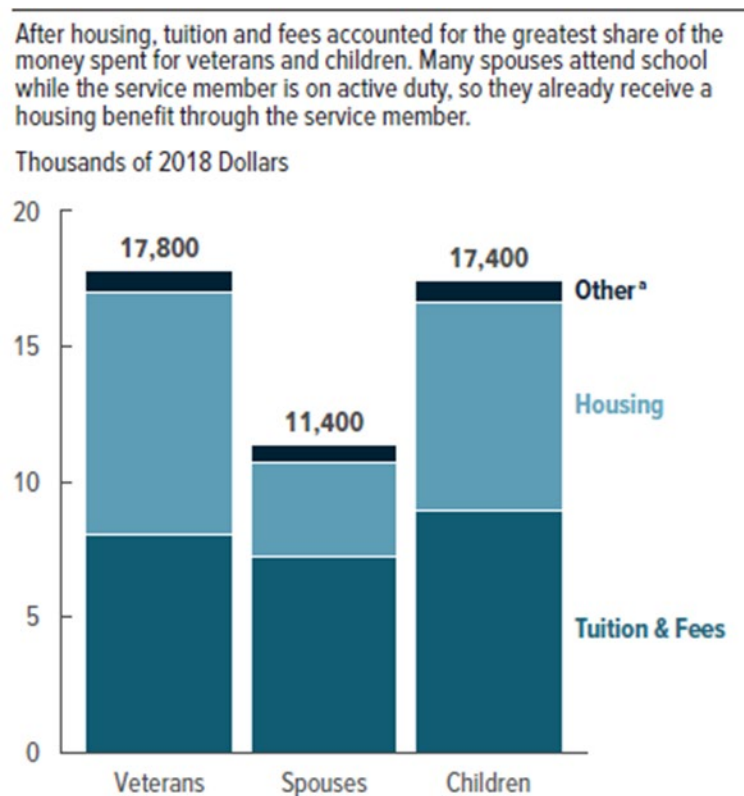


Figure 8. Average Outlay on the Post-9/11 GI Bill's Benefits by Beneficiary Type, 2016. Source: CBO (2019).

The third focus was on the goals of the PGIB and determining if the PGIB was meeting the stated goals. The CBO (2019) states that there are two primary objectives for the PGIB to accomplish: "assisting military recruitment and retention during conflict and helping veterans readjust to civilian life through pursuing higher education" (CBO, 2019,

p. 14). The CBO determined that the PGIB has probably been successful in increasing recruitment and readjustment to civilian life for veterans. However, there are issues and a lack of needed information on the programs beneficiaries apply for; often, they are not notified of the school's accreditation status or the training they receive. There have been efforts to implement controls to reduce funds from going to non-accredited schools, which could reduce or prevent predatory practices on veterans. The CBO also discussed in the report the effects of the PGIB on retention. The CBO stated, "Because the benefit is relatively new, CBO found only one study using administrative data specific to the Post 9/11 GI Bill" (CBO, 2019, p. 15). The study the CBO referenced was the 2017 RAND report already discussed in this study. The CBO discusses better retention incentives than the PGIB transfer entitlement; for example, re-enlistment bonuses seem to have a more significant effect on retention (CBO, 2019). The report shows how the PGIB has evolved and changed to fix issues and develop into a stronger and more effective PGIB.

THIS PAGE INTENTIONALLY LEFT BLANK

III. METHODOLOGY

The PGIB is a relatively new program inside the VA, and there is little interest in assessing the effectiveness of the PGIB Transfer Entitlement on retention. This has led to the lack of significant research on Transfer Entitlement effects on retention. There is no clear path to conducting the assessment to answer the three objectives: the impact of the PGIB Transfer Entitlement on the Navy's retention rates, the current and long-term cost of the Transfer Entitlement. This research created a path based on previous similar valuation assessments and used the required end state for each objective to determine the path needed to reach that state.

A. OBJECTIVE ONE: IMPACT OF THE PGIB TRANSFER ENTITLEMENT ON THE NAVY'S RETENTION RATES

The PGIB Transfer Entitlement was designed to mitigate the drop in retention due to PGIB implementation by giving service members the option to obligate four years of service to have the ability to transfer their earned PGIB benefits to their spouse or child(ren). Suppose the PGIB Transfer Entitlement was effective in this objective. In that case, the retention rate among service members with family should increase compared to service members without family members, especially in the required YOS range.

To test the effectiveness of the PGIB Transfer Entitlement on retention rates using cross-sectional data, we used the following family status specifications and estimate regression on the retention rate:

$$\text{Retention Rate}_{it} = \alpha + \beta_1(\text{With Families})_i + \beta_2(\text{Post Period})_t \\ + \beta_3(\text{With Family*Post Period})_{it} + \varepsilon_i$$

where $\text{Retention Rate}_{it}$ is the retention rate of individual i in year t . With Families_i is an indicator variable equal to 1 for individual i who has a family and zero otherwise, Post Period_t is an indicator variable equal to 1 in year t if the year is 2009 or later and zero otherwise – representing the pre- or post-PGIB implementation time period. The interaction $\text{With Family*Post Period}_{it}$ is the variable of interest and is an indicator variable equal to 1 if individual i has a family and the year is 2009 or later, and zero otherwise. B_3

is the coefficient of interest and can be interpreted as the impact of the PGIB on retention rates for those individuals with families. ε_i represents the error term. The retention/family data from DMDC (2023) was used to assess the effects of the Transfer Entitlement (DMDC, personal communication, 2023).

B. OBJECTIVE TWO: COST OF THE TRANSFER ENTITLEMENT

The PGIB Transfer Entitlement is an effective tool in improving family quality of life. It reduces the pressure on service members to pay for their children's college. This cost of Transfer Entitlement is a significant portion of the overall cost of the PGIB.

1. GI Bill Usage Rate

The first step in determining the Cost of the Transfer Entitlement was to calculate the GI bill usage rate for different user types (veterans, spouses, children). By assessing the historical GI Bill usage data from the VA (VA, n.d.-d), prior to and after implementation of the PGIB, then comparing that data to the separation rates for navy enlisted from the DMDC (2023) to obtain the usage rate for each user type (DMDC, personal communication, August 26, 2023). The separation rate was used because for service members, once a person separates from the military, his VA benefits are locked in (with few sporadic exceptions); prior to separations, the benefits can be revoked for any number of reasons, and any used benefits would have to be repaid (VA, 2021b). There would be a minor lag, but most service members planning to utilize the PGIB use it shortly after leaving the military.

2. Valuation of Transfer Entitlement

The PGIB was an expensive program in the VA, and the Transfer Entitlement takes up a significant portion of the overall cost. To assess the cost of the Transfer Entitlement, the first step was to obtain the number of PGIB users based on type (veteran, spouse, or child). The GI Bill user data from the VA annually shows how many people are using each benefit and how many PGIB users are spouses and children (VA, n.d.-d).

The next step was to find the average cost of the PGIB per user type. According to a 2019 CBO report, each user type uses the GI Bill differently, causing a difference in

average cost per user type. Veterans are the most expensive users on average (\$22,105/year adjusted for inflation; [BLS, n.d.-a]), followed by children (\$21,608/year adjusted for inflation; [BLS, n.d.-a]), and then spouses (\$14,156/year adjusted for inflation; (BLS, n.d.-a); CBO, 2019).

The final step was multiplying the average PGIB cost per child (CC) by the number of children using the PGIB (CU), then multiplying the average PGIB cost per spouse (SC) by the number of spouses using the PGIB (SU), and then summing the two products together to obtain the Transfer Entitlement cost (TEC).

$$TEC=CU*CC+SU*SC$$

C. OBJECTIVE THREE: THE LONG-TERM COST OF THE TRANSFER ENTITLEMENT

The PGIB is a VA program that has existed for 14 years and currently has no sunset date. This GI Bill could provide educational benefits to service members and family members for decades. There is no indication of any GI Bill changes on the horizon; in fact, the PGIB has not significantly changed since its inception.

To obtain the present value of the PGIB Transfer Entitlement benefits for Navy enlisted for the next 30 years, the first step was to calculate the average cost, adjusted for inflation, of the ten years (2012-2021) of PGIB Transfer Entitlement benefits. Then use CBO's 30-year projection for the Consumer Price Index – Urban (CPI-U) inflation rate (g) as the growth rate of the PGIB, CBO's 30-year projection for 10-year treasury notes interest rate (r) as the interest rate of the cost of the PGIB, and 30 years (t) as the time to calculate the present value of the PGIB transfer entitlement by using the present value growth annuity formula.

The CPI-U was used to calculate inflation because the PGIB is based on different values related to student life, including tuition, housing, and books. The CPI-U assesses the increased cost, by percentage, of living in an urban setting. The CPI-U prediction is the closest long-term cost prediction to student life. 10-year treasury notes predicted interest rate was used in this calculation due to 10-year treasury notes being the significant factor in determining the interest rate of the national debt; the Treasury issues 10-year treasury

notes to pay for deficit spending. The current annual PGIB Transfer Entitlement (cf) cost was assessed as cash flow. To calculate the present value of an operation over time, with a predictable growing cash flow a PV Annuity (With Growth) is needed. Since most of the predicted inflation and interest rates are 30 years in length; 30 years should suffice for the length of time for this calculation. The PV Annuity (With Growth) is the current cost of 30 years of Transfer Entitlement Benefits for Navy Enlisted family members.

$$\text{PV Annuity (With Growth)} = \frac{cf}{r - g} * \left(1 - \frac{(1 + g)^t}{(1 + r)^t}\right)$$

IV. ANALYSIS

The PGIB has been in effect for 14 years, and trends are starting to emerge from the data that the VA and military are gathering. Three objectives are assessed in this chapter: the impact of the PGIB Transfer Entitlement on the Navy enlisted retention rate, the cost of the Transfer Entitlement, and the long-term cost of the Transfer Entitlement Benefits.

A. **OBJECTIVE ONE: IMPACT OF THE PGIB TRANSFER ENTITLEMENT ON THE NAVY ENLISTED RETENTION RATES**

When the PGIB was created, it was expected to increase reenlistment rates but reduce retention rates. The expectation was that PGIB would reduce reenlistment by 16% (Dortch, 2021). To mitigate this, the PGIB was implemented with a Transfer Entitlement provision, with a requirement to commit to serving an additional four years of active duty between the service members 6 and 16 YOS. A 2017 RAND study found that PGIB Transfer Entitlement only increases retention rates by 1% to 3 % (Wenger et al., 2017).

The data from DMDC show the relationship between family status and retention rates for service members divided by YOS, as shown in Appendix B. The data assesses the percentage of members who remained in the Navy based on their YOS. For example, 90.6% of service members in 2008 who had 5 YOS remained in the Navy in 2009 and had 6 YOS. Due to the service member being in four potential statuses: Married with kids, married with no kids, not married with kids, and not married with no kids, a weighted value was needed to combine the three statuses that had the potential to transfer benefits. This was done by using the distribution of family status for each year. Additionally, the data focused on 6–15 YOS due to those YOS group members being eligible to utilize the Transfer Entitlement of the PGIB.

To test the effects of the PGIB Transfer Entitlement on the Navy enlisted retention rate, this research used cross-sectional data with family and time periods for each coefficient. In Table 5, the results show a coefficient of -8.848 with a standard error of 1.717. This shows that contrary to the objective of the PGIB Transfer Entitlement, there

has been a drop in the retention rate for service members with families compared to service members without families.

Table 5. PGIB Transfer Entitlement Effects on Retention Rates. Adapted from DMDC (personal communication, August 26, 2023).

<i>Variable</i>	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	92.515	1.166	79.315	0.000	90.096	94.934	90.096	94.934
With Family	-1.805	1.650	-1.094	0.286	-5.226	1.616	-5.226	1.616
Post Period	-0.239	1.214	-0.197	0.845	-2.757	2.278	-2.757	2.278
With Family *Post	-8.848	1.717	-5.153	0.000	-12.409	-5.287	-12.409	-5.287

There is a strong possibility that these results are affected by other unknown variables unrelated to the PGIB and caused a reduction in reenlistment rates for service members with families compared to service members without families. The most significant factor that could have potentially affected the data could be the time period that the PGIB was enacted. The PGIB was enacted in 2009 during the Great Recession; this could have potentially had a significant positive impact on retention rate among service members with families, and after the Great Recession the retention rates returned to normal, which could be the cause of the perceived drop in the retention rates for service members with families. It could also be an unintended consequence of the PGIB that service members with families would want to attend college to improve their economic potential for their families. Without accounting for every variable in reenlistment decision-making by service members, it might be nearly impossible to fully determine what is causing this effect on service members with families. However, it is nearly evident that the PGIB Transfer Entitlement does not have the effect of significantly increasing retention rates as predicted.

B. OBJECTIVE TWO: COST OF THE TRANSFER ENTITLEMENT

The Transfer Entitlement was designed to provide education benefits for service member families at an increase to the overall cost of the PGIB program. This section calculates the Transfer Entitlement cost to the PGIB program.

1. GI Bill Usage Rate

The GI Bill Usage Rate was essential to determine who receives the benefits and if the program was being used as intended. The Transfer Entitlement and the increased generous benefits of the PGIB over the MGIB can account for the increased usage and cost of the VA education programs. To access the cost of the PGIB Transfer Entitlement, the users of the PGIB need to be divided between family and veterans.

Before the PGIB was implemented, the GI Bill usage rate was significantly lower than it is currently. Appendix C shows that the data that could be calculated was from 2006 to 2021, except for 2011 and 2012; the VA did not report on new GI Bill users for 2011 and 2012 (VA, n.d.-d). As shown in Figures 9 and 10, from 2006 to 2008, the usage rate was 48.8%; nearly all veterans were using MGIB, with a few hundred veterans using VEAP. From 2013 to 2021, the average usage rate for veterans was 71.1%, the average usage rate for service member spouses was 3.6%, the average usage rate for service members' children was 10.0%, and an overall usage rate of 84.7%; the PGIB increased the usage rate by 73.6%. Additionally, after the PGIB implementation, usage rates were above 100 %, as shown in Figure 10. This can be accounted for by service members transferring from MGIB to PGIB, veterans who never elected to enter the MGIB program but, due to the more attainable PGIB, elected to receive benefits, and family members who receive transferred benefits. The new usage rates surged in the first six years after implementation but have stabilized. This increase in usage rate accounts for the massive increase in the program's cost.

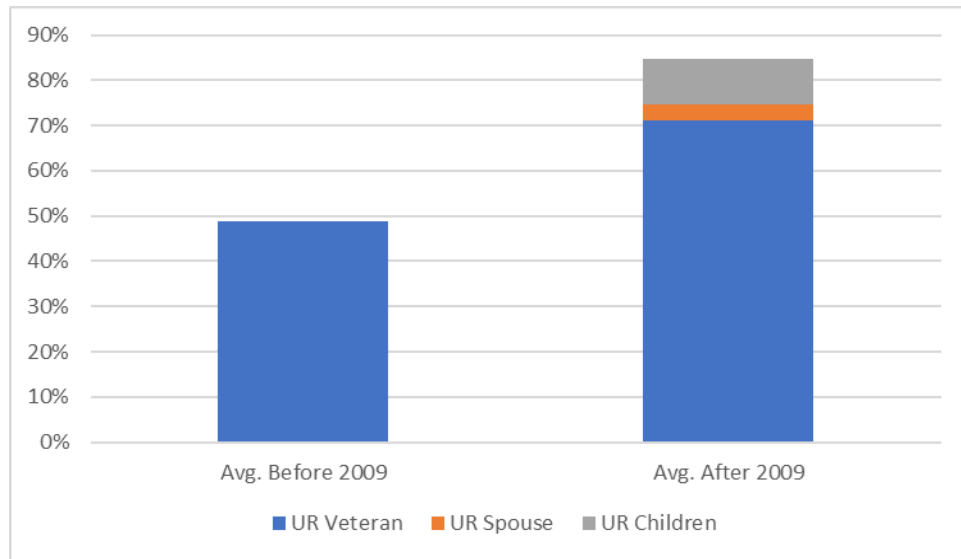


Figure 9. GI Bill Usage Rate. Adapted from VA (n.d.-d).

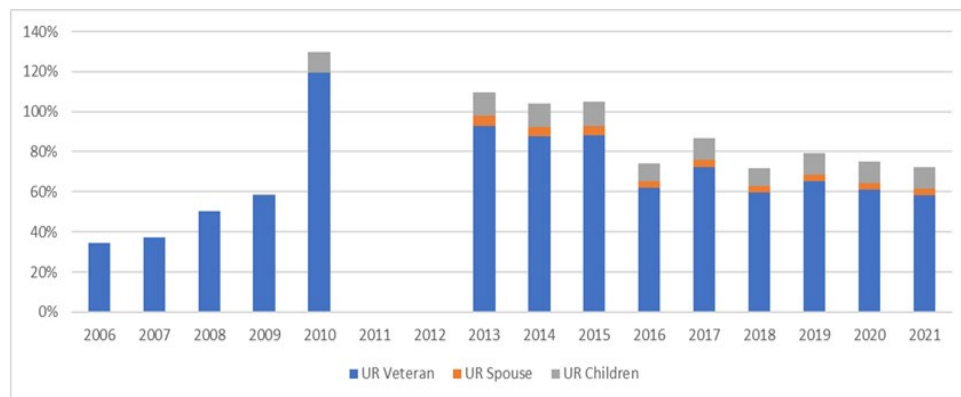


Figure 10. Usage Rate per Year by Beneficiary Type. Adapted from VA (n.d.-d).

As shown in Figures 11 and 12, there was a massive increase in new GI Bill Usage. According to the VA (n.d.-d), from 2008 to 2010, the number of New GI Bill users increased from 82,090 to 225,752, an increase of 175%; some of the increase came from the 51,786 service members' family members able to use the PGIB, but the most significant increase came from the additional 91,876 veterans electing to use their GI Bill. Figure 12 shows, the significant drop in MGIB new users from 2008 to 2010, from 82,004 to 3,849 VA (n.d.-d); this could be primarily due to veterans electing to use the more generous PGIB over the MGIB.

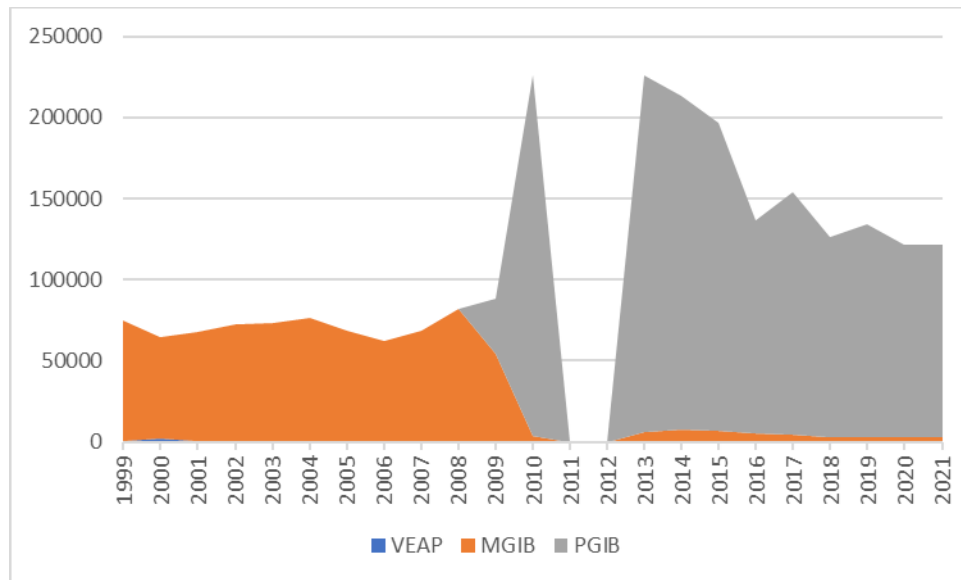


Figure 11. New GI Bill by Type 1999–2010. Adapted from VA (n.d.-d).

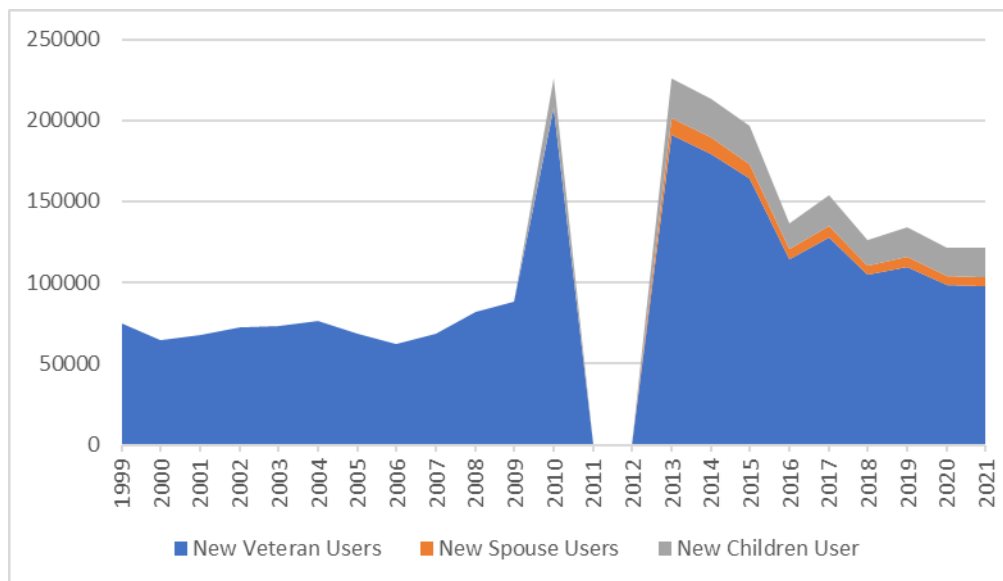


Figure 12. New GI Bill Users. Adapted from VA (n.d.-d).

2. Valuation of the Transfer Entitlement

The PGIB is one of the most expensive benefits that the VA oversees. The total cost of the PGIB is reported annually in the VA’s Annual Benefits Report. The more challenging question was to determine how much of the PGIB program’s total cost was

from the Transfer Entitlement's usage. Each year, this was calculated based on the number of spouses and children using the PGIB. In 2010, the VA's Annual Benefit Report stated that "During the fiscal year 2010, there were 51,658 beneficiaries who received transferred benefits from the Servicemember or Veteran." (VA, n.d.-d) The following year, the VA split the PGIB users between spouses and children. As shown in Figure 13, the usage rates of every user type expanded after PGIB implementation until they peaked with spouse users in 2012 with 54,367 users, child users in 2015 with 101,707 users, and veteran users in 2016 with 654,385 users. The rates for family members have stabilized; by 2021, 27,718 spouses and 94,842 children were using the PGIB benefits. Most of the drop comes from the veterans who have reduced their usage from a peak in 2016 of 654,382 to 2021 with 487,454 Veteran users. It is unknown what is causing this decrease in veterans' usage (VA, n.d.-d).

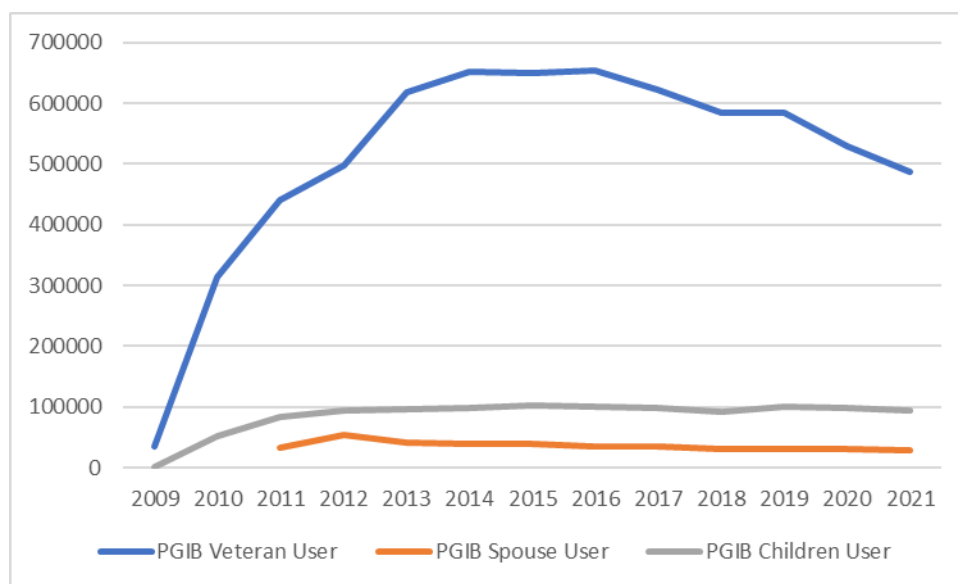


Figure 13. Total GI Bill Users. Adapted from VA (n.d.-d) and CBO (2019).

The next step in assessing the value of the PGIB Transfer Entitlement was to calculate the cost of the PGIB benefits for spouses and children of service members. The number of spouses and children using the PGIB per year was assessed in the previous section. The average cost of the benefits per user type was calculated and assessed by a

2019 CBO report. The report found that in 2016, the average veteran PGIB benefit was 17,800 annually, the average spouse PGIB benefit was \$11,400, and the average child benefit was \$17,400; the report adjusted the average amount for inflation into 2018 dollars (CBO, 2019). By using the BLS inflation calculator (BLS, n.d.-a) and assuming that the usage levels of the PGIB per user type remain nearly constant, a calculation for each year's average cost per user type was obtained. The Transfer Entitlement cost was obtained by multiplying the average user cost by the number of users per user type, then adding children and spouse's costs. Figure 14 shows the cost of the Transfer Entitlement compared to the cost of veterans using the PGIB. Figure 15 shows the Transfer Entitlement's real cost, and Figure 16 shows the Transfer Entitlement's nominal cost.

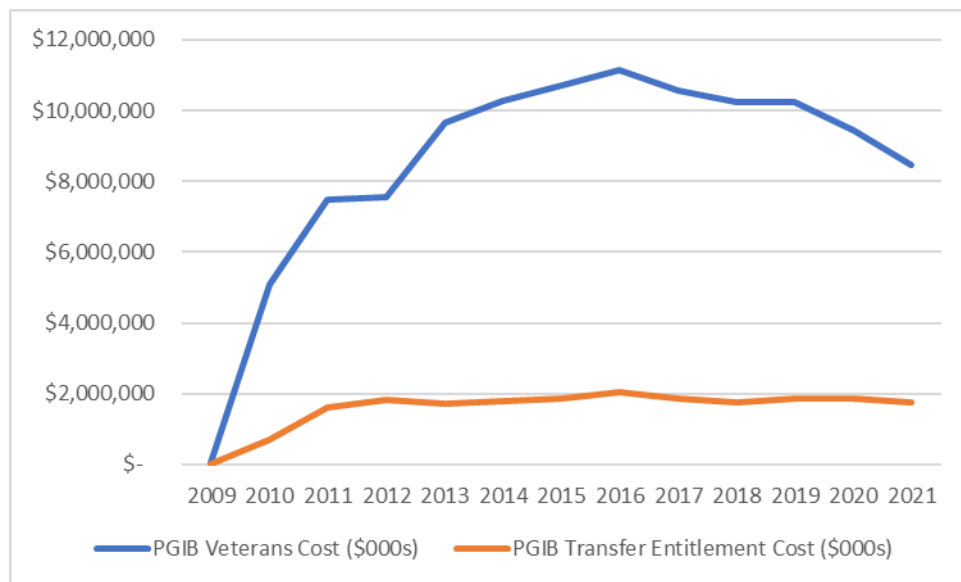


Figure 14. Total Cost of PGIB by Beneficiary Type. Adapted from VA (n.d.-d) and CBO (2019).

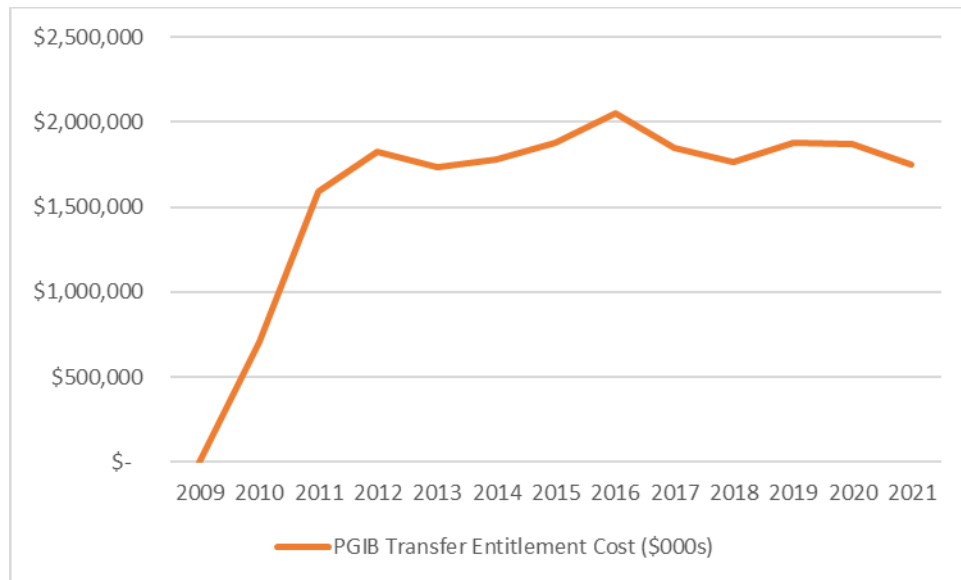


Figure 15. PGIB Transfer Entitlement Nominal Cost. Adapted from VA (n.d.-d) and CBO (2019).

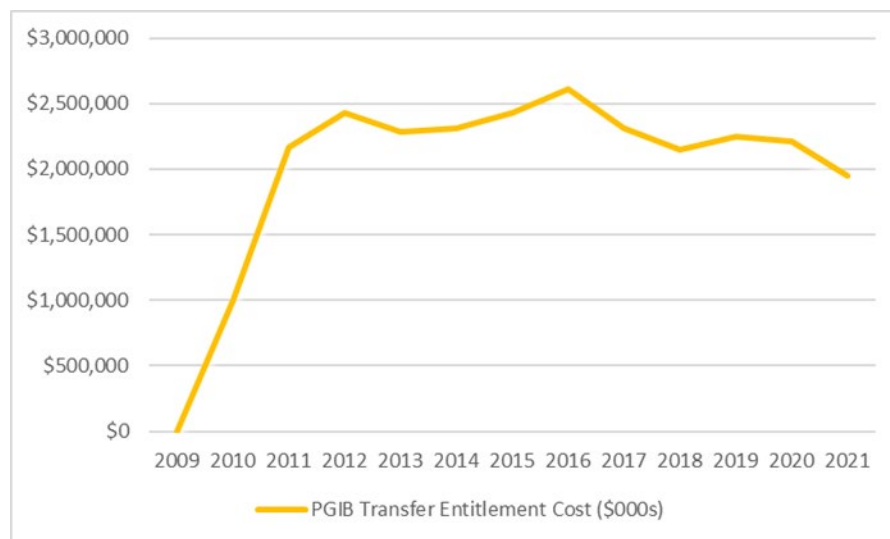


Figure 16. PGIB Transfer Entitlement Real Cost. Adapted from VA (n.d.-d) and CBO (2019).

The data for the Transfer Entitlement cost shows that since 2011, the cost has been nearly \$2 billion, not adjusted for inflation. In 2012, the Transfer Entitlement, using data from CBO (2019) and VA (n.d.-d), was calculated to cost \$1.82 billion; it peaked in 2016 at \$2.05 billion and has since been relatively stable. The average cost of the Transfer

Entitlement from 2012 to 2021 was on average \$1.84 billion. Adjusted for inflation, the real cost of the Transfer Entitlement from 2012 to 2021 was on average \$2.28 billion. The data shows that the nominal cost of the Transfer Entitlement is nearly stable, but the real cost has been slowly dropping nearly every year since 2016. Figure 17 shows the breakdown of the cost of the Transfer Entitlement between service members' spouses and children.

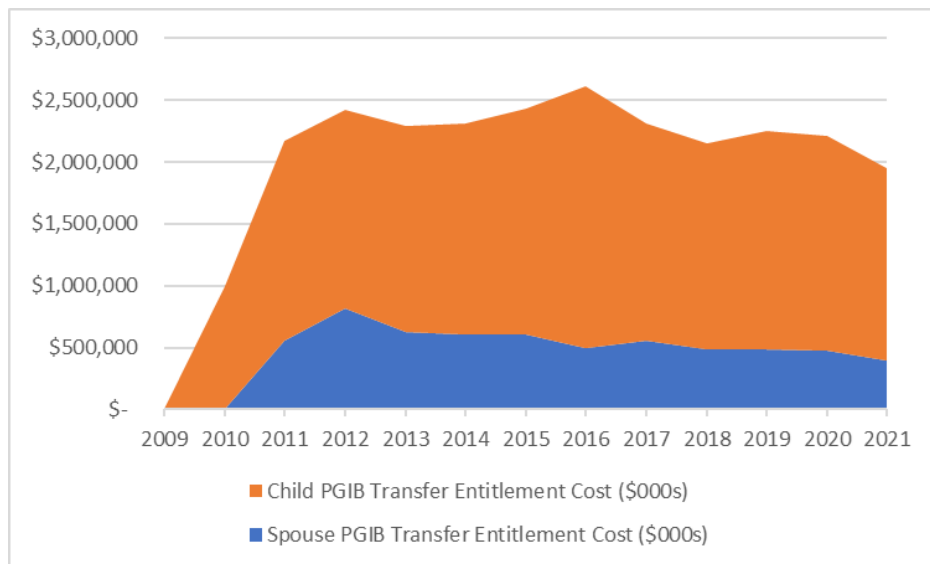


Figure 17. Cost of PGIB Transfer Entitlement per User Type (adjusted for Inflation). Adapted from VA (n.d.-d), CBO (2019), and BLS (n.d.-a).

The final step was to scope the cost of the Transfer Entitlement to only service members who were Navy Enlisted. By using the ratio of Navy Enlisted to the total DOD strength and multiplying it by the Total cost of the Transfer Entitlement, the real cost of the Transfer Entitlement for Navy Enlisted was obtained. The average cost between 2012 and 2021 was \$465 million, as shown in Figure 18.

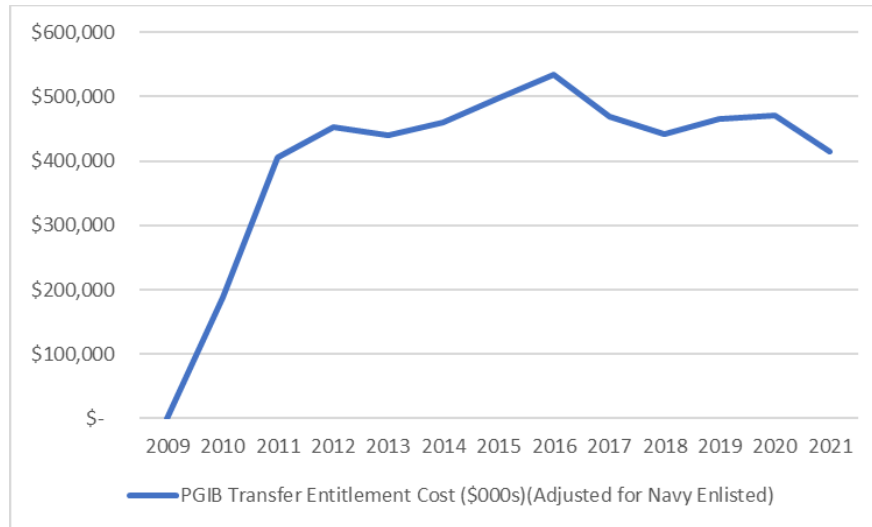


Figure 18. PGIB Transfer Entitlement Real Cost Scoped to Navy Enlisted and CBO (2019).

C. OBJECTIVE THREE: THE LONG-TERM COST OF THE TRANSFER ENTITLEMENT

The PGIB program has no end date; the benefits will be paid out until the program ends. This section's calculations were based on the present cost of the program for the next 30 years. Present Value is an effective tool in calculating the long-term cost of a program over its lifetime. The PGIB has no expiration date and is expected to continue until new legislation is created to sunset the program. As shown in Figure 19, the PGIB Transfer Entitlement cost is relatively stable when accounting for inflation, averaging \$463.5 million from 2012 to 2021. The 10-year average for Navy Enlisted family members was used to calculate the present value of the Transfer Entitlement. The CBO projects an average 30-year CPI-U (Consumer Price Index – Urban) inflation rate of 2.3% and a 30-year interest rate of 3.9% and slowly rise to 4.5% by 2053 on a 10-year treasury note (CBO, 2023); for this assessment, the average of 4.2% was used. With the CPI-U rate being the growth rate of the PGIB program, the 10-year treasury note rate being the interest rate, and 30 years being the time, a present value was calculated. In 30 years, the PGIB program will be 44 years old. The MGIB is scheduled to sunset in 2030 after being in existence for 45 years.

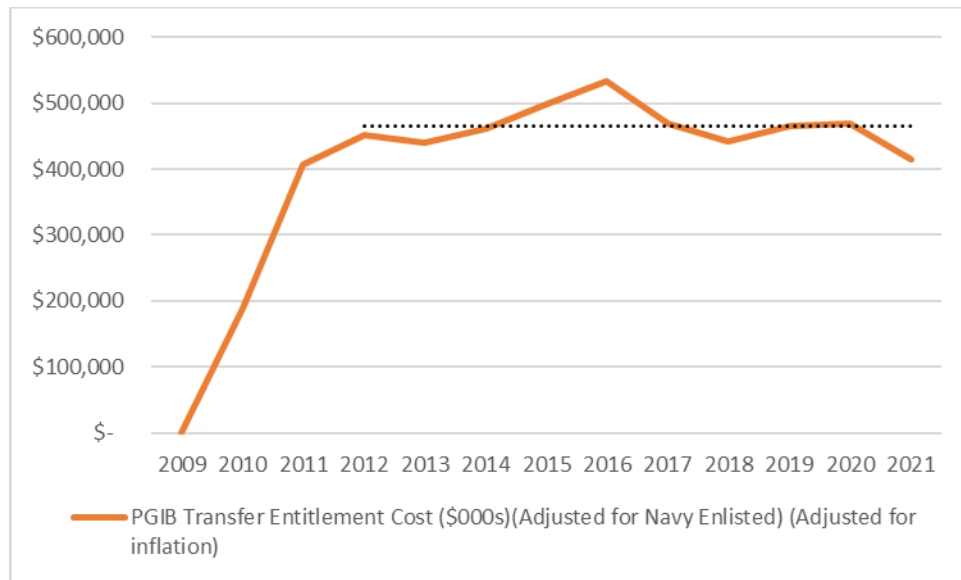


Figure 19. Cost for PGIB Transfer Entitlement for Navy Enlisted Family Members. Adapted from VA (n.d.-d) and CBO (2019).

The present value for the next 30 years of the PGIB Transfer Entitlement for family members of Navy enlisted, using data from CBO (2019), CBO (2023) and VA (n.d.-d), was calculated to be \$10.35 billion. It is uncertain if the PGIB in its current form will last 30 years or, as previous GI Bills have done in the past, sunset, and a new GI Bill will take its place.

THIS PAGE INTENTIONALLY LEFT BLANK

V. SUMMARY, RECOMMENDATION, AND CONCLUSION

The PGIB Transfer Entitlement has a significantly higher than expected cost with a potentially negative impact on retention. It is uncertain how long the PGIB will stay in its current form, but more cost-effective measures could be taken to improve its impact on accession and retention rates.

A. SUMMARY

The data shows that the PGIB Transfer Entitlement does not live up to its original purpose of being a mitigator for the reduction in the retention rates; in contrast, the Transfer Entitlement might negatively impact retention rates. At the current scope of this research and with the limited data, it is nearly impossible to determine what factors could impact the retention rates for service members with families. Potential significant underlying causes could be impacting retention rates for married service members.

The cost of the PGIB is significantly higher than the estimated preliminary projected cost of the program. There has been significantly little previous research conducted to assess the effectiveness and cost of the Transfer Entitlement. This could be due to individuals not wanting to present a program that benefits service members' families as negatively effective toward retention and costly.

B. RECOMMENDATIONS

Three recommendations could potentially make the PGIB Transfer Entitlement more effective. The first recommendation is reducing the YOS requirement to utilize this benefit. The most significant portion of service members separate after their first enlistment. Reducing the YOS requirement to 3 YOS and increasing the obligation time to 6 additional years could potentially increase the reenlistment rate for first-term enlistments. The current system requires a service member to have completed at least 6 YOS and obligate four additional years.

The second recommendation is to limit when service members can transfer their benefits to re-enlistment decision points. Currently, service members can transfer their

benefits between 6 to 16 YOS; during that time, there is little to no pressure to make that decision to transfer their earned PGIB benefits, which potentially translates into that the Transfer Entitlement has little impact on service members decision to remain in the service. Additionally, if the Transfer Entitlement decisions must be made at reenlistment decision points, that would increase awareness of the Transfer Entitlement being part of the PGIB program.

The third recommendation is to transform the Transfer Entitlement into a reenlistment option. During reenlistment negotiation, service members have several options and decisions to encourage them to reenlist. If the Transfer Entitlement was a reenlistment option, other reenlistment options could be reduced due to the increased incentive from the Transfer Entitlement. This recommendation could be used with the first recommendation to reduce the required YOS to three years and increase the obligation to six years of service, allowing service members to opt into transferring their benefits in negotiating their first reenlistment contract. This could potentially increase the junior enlisted retention rates while reducing the SRB cost.

C. FURTHER RECOMMENDED RESEARCH

Due to the limited time and scope of this study, the research could not assess everything about the impact that the PGIB Transfer Entitlement has on retention rates. There are many areas of focus that additional studies could research and assess.

First, additional research could be conducted to determine if there is an underlying cause of the negative impact on retention rates due to the implementation of the PGIB; several factors could impact the data. The potential most significant impact on retention rates is the economic environment; during the implementation of the PGIB, the United States was going through the Great Recession. The Great Recession could have impacted service members with families more than service members without families. This could have an impact on the historical retention rates prior to implementation. Researching older retention numbers could create more accurate data and a better picture of the impact of the Transfer Entitlement on retention rates.

Second, additional research could be conducted for other military branches to determine if there are different retention rates outcomes due to the Transfer Entitlement. Each branch has a different force structure, focusing on different levels of experience; each branch fills these requirements by setting accession and retention goals. The impact of the Transfer Entitlement on retention rates could be different based on the military branch.

Third, additional research could be conducted on the difference in the impact of retention rates due to Transfer Entitlements between officers and enlisted. The officer career pathways are unique to each community and military branch significantly different from enlisted career pathways. Potentially, there is no impact of the Transfer Entitlement on commissioned officers due to nearly all having a 4-year college degree, with most eligible to utilize the Transfer Entitlement having a post-graduate degree; there is less incentive to utilize the PGIB after separation. Assessing the impact of Transfer Entitlement on officer retention could determine if it effectively increases retention rates for mid-grade officers.

Fourth, research could be conducted on the long-term unintended effects of the Transfer Entitlement to include the potential reduction in service members coming from military families. A significant portion of service members come from families who had parents in the military. The ability to transfer PGIB benefits to children could potentially reduce the number of service members' children entering the military, which could potentially affect long-term accession rates. More additional research would need to be conducted to determine the impact of the PGIB Transfer Entitlement on service members' children entering the military.

Many other areas could be assessed with the PGIB that could make the benefit more cost-effective and positively impactful for accession and retention rates. The PGIB Transfer Entitlement might remain under research because most organizations do not want to assess Veterans' Benefits as inefficient and ineffective, especially a benefit as generous as the PGIB.

D. CONCLUSION

The GI Bill has evolved significantly throughout the last 79 years to better meet veterans' current needs and demands. Though PGIB is the most recent significant addition to the veterans' education benefits program, it is the most generous by far. When the PGIB was implemented, there were fears that it would reduce retention rates; to mitigate this, Congress added the Transfer Entitlement with a requirement of obligating six additional YOS.

The Transfer Entitlement is a unique provision to the PGIB, with a few rare pilot program participants transferring their MGIB benefits to their children before the PGIB implementation. Though the Transfer Entitlement assists service members' families, it does come at a high cost, nearly \$2 billion annually. It was designed to increase retention for mid-career service members with family members, though the research shows little positive impact on retention. The research in this study shows that the Transfer Entitlement potentially negatively impacts retention rates. With the significant cost and no significant increase in the retention rates, the Transfer Entitlement is not achieving its original objective.

APPENDIX A. 2008 QUICK COMPASS OF ACTIVE-DUTY MEMBERS

Table 6. Survey Results for Active-Duty Members. Adapted from DMDC (2008).

Question Percentage of service members	Total	Navy			
		Total	E1–E4	E5–E9	Officers
With Child(ren) under 4	27	26	19	29	27
With Child(ren) 5–12	27	24	5	33	31
With Child(ren) 13–17	13	12	0	18	18
With Child(ren) 18–22	6	6	1	8	12
With Child(ren) 23–26	3	3	1	3	6
With a bachelor’s degree or higher	23	22	3	10	91
With student loans	17	16	14	14	25
Would likely stay on active duty if they could	61	63	46	70	70
Able to participate in the MGIB	79	85	97	90	43
Enrolled in the MGIB	80	82	91	84	51
Used their MGIB	13	10	1	12	34
Increasing the dollar value of the GI Bill benefit is important	96	96	97	96	88
Increasing the number of years a service member could use the benefit is important	92	93	93	95	86
Being able to use the GI benefits to pay existing college loans is important	80	80	85	80	68
Eliminating the \$1,200 service member contribution is important	70	68	73	63	65
Being able to transfer benefits to their spouse and/or child(ren) is important	95	94	96	95	90
Receiving the full cost of in-state public college and a monthly cost-	15	14	22	12	4

Question Percentage of service members	Total	Navy			
		Total	E1–E4	E5–E9	Officers
of-living stipend, would leave the military at the earliest opportunity					
Receiving the full cost of in-state public college and a monthly cost-of-living stipend, would leave the military at retirement or separation	62	66	59	72	62
Transfer benefits to a spouse is important	90	89	92	88	86
Transfer benefits to a child(ren) is important	95	95	97	95	92
Would likely transfer their GI bill to their spouse	73	72	76	74	61
Would likely transfer their GI bill to their child(ren)	93	94	93	94	94
If given the option to transfer benefits, would transfer:					
Would use 0% of GI Bill on self	28	26	8	24	47
Would use 1–25% of GI Bill on self	26	27	23	31	21
Would use 26–50% of GI Bill on self	35	37	53	36	23
Would use 51–75% of GI Bill on self	6	7	11	6	5
Would use 76–100% of GI Bill on self	5	4	5	4	4
Would transfer 0% of GI Bill to spouse	27	28	23	26	40
Would transfer 1–25% of GI Bill to spouse	39	39	37	42	32
Would transfer 26–50% of GI Bill to spouse	28	27	39	24	23
Would transfer 51–75% of GI Bill to spouse	2	2	1	3	2
Would transfer 76–100% of GI Bill to spouse	4	4	1	5	3

Question Percentage of service members	Total	Navy			
		Total	E1–E4	E5–E9	Officers
Would transfer 0% of GI Bill to child(ren)	12	12	17	11	13
Would transfer 1–25% of GI Bill to child(ren)	17	16	24	15	10
Would transfer 26–50% of GI Bill to child(ren)	41	41	45	44	29
Would transfer 51–75% of GI Bill to child(ren)	12	12	9	12	16
Would transfer 76–100% of GI Bill to child(ren)	18	19	5	19	32
Would likely recommit to transfer GI Bill to spouse and/or child(ren)	65	66	54	72	61
Would likely agree that service members should be able to transfer their entire GI Bill to their spouse or child(ren)	89	89	86	91	87
Would likely agree that service members should be able to transfer only half of their GI Bill to their spouse or child(ren)	29	27	31	28	20
Would, to a large extent, stay on active duty if the GI Bill was increased from \$1,101 per month to \$2,100	64	65	61	73	50
Would, to a large extent, stay on active duty if the GI Bill was transferable to spouse and/or child(ren)	68	68	61	74	63
Would, to a large extent, stay on active duty if the GI Bill offered the option to repay federally funded student loans	50	48	50	52	40

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX B. HISTORICAL RETENTION RATES BASED ON YEARS OF SERVICE

Table 7. Retention Rates Based on Years of Service. Adapted from DMDC,
Personal Communication, August 26, 2023)

	6 YOS												
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Married, no Children	87.50	89.20	90.41	88.23	89.29	89.32	88.90	85.65	91.10	91.21	90.40	89.85	85.86
Married, with Children	92.17	91.62	91.08	91.56	92.14	93.01	92.86	93.22	91.96	93.20	93.44	92.06	89.99
Not Married, no Children	89.73	90.16	89.31	88.45	89.96	90.99	90.63	90.99	89.52	90.99	91.09	89.85	88.95
Not Married, with Children	90.60	91.31	87.53	87.22	90.74	89.74	92.78	91.64	90.74	90.83	90.21	89.00	87.94
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Not Married, no Children	89.73	90.16	89.31	88.45	89.96	90.99	90.63	90.99	89.52	90.99	91.09	89.85	88.95
With Family	90.590	90.893	90.743	90.189	91.139	91.555	91.570	90.605	91.569	92.310	92.087	91.001	88.288
Difference	0.86	0.73	1.43	1.74	1.18	0.56	0.94	-0.38	2.05	1.32	1.00	1.15	-0.66
Difference of Differences		-0.13	0.57	0.88	0.32	-0.30	0.08	-1.25	1.19	0.46	0.14	0.29	-1.52

	7 YOS												
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Married, no Children	81.29	81.28	78.72	79.73	79.44	83.04	82.50	78.47	81.13	86.96	86.77	88.93	86.95
Married, with Children	84.89	83.69	83.53	80.72	86.06	86.58	86.12	87.09	86.19	89.07	89.61	89.20	88.28
Not Married, no Children	81.81	81.18	78.90	78.26	81.61	83.68	82.26	83.78	83.41	87.37	86.55	86.54	84.91
Not Married, with Children	79.95	78.84	75.63	77.33	77.58	82.19	83.23	83.71	80.68	87.22	87.37	87.08	85.54
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Not Married, no Children	81.81	81.18	78.90	78.26	81.61	83.68	82.26	83.78	83.41	87.37	86.55	86.54	84.91
Family	83.416	82.594	82.653	80.132	83.381	85.137	84.773	84.163	84.119	88.220	88.466	88.940	87.600
Difference	1.61	1.41	3.75	1.87	1.77	1.46	2.51	0.38	0.71	0.85	1.92	2.40	2.69
Difference of Differences		-0.19	2.15	0.27	0.16	-0.15	0.91	-1.22	-0.90	-0.76	0.31	0.79	1.08

	8 YOS												
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Married, no Children	90.13	89.28	90.73	83.29	89.24	88.74	90.89	84.63	92.08	92.01	90.16	90.30	85.97
Married, with Children	90.66	91.65	91.99	87.33	91.53	92.67	91.53	93.63	91.75	92.60	92.90	89.84	88.87
Not Married, no Children	87.44	87.50	88.85	83.37	88.30	90.13	88.51	88.75	88.74	89.80	90.74	86.63	85.58
Not Married, with Children	89.89	90.38	90.28	84.40	90.20	90.17	90.11	91.76	89.63	91.86	92.25	89.20	87.46
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Not Married, no Children	87.44	87.50	88.85	83.37	88.30	90.13	88.51	88.75	88.74	89.80	90.74	86.63	85.58
Family	90.447	90.926	91.787	86.008	90.786	91.343	91.223	90.875	91.676	92.356	91.971	89.940	87.804
Difference	3.01	3.43	2.94	2.64	2.49	1.21	2.71	2.13	2.94	2.56	1.23	3.31	2.22
Difference of Differences		0.42	-0.07	-0.37	-0.52	-1.79	-0.29	-0.88	-0.07	-0.45	-1.78	0.30	-0.78

	9 YOS												
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Married, no Children	90.00	91.99	87.71	86.22	89.53	90.67	91.33	87.06	91.39	89.66	92.32	89.71	88.61
Married, with Children	90.44	91.50	91.45	87.04	91.89	92.75	92.72	92.49	92.23	92.44	92.11	89.79	88.48
Not Married, no Children	86.81	87.64	87.41	81.59	88.58	89.74	89.61	88.45	89.34	89.05	89.33	87.26	86.44
Not Married, with Children	88.01	89.04	87.78	83.46	89.65	90.29	91.51	93.68	90.86	89.70	90.15	89.13	85.33
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Not Married, no Children	86.81	87.64	87.41	81.59	88.58	89.74	89.61	88.45	89.34	89.05	89.33	87.26	86.44
Family	90.118	91.391	91.027	86.506	91.098	91.995	92.250	91.167	91.885	91.425	92.013	89.712	88.263
Difference	3.31	3.75	3.62	4.92	2.52	2.25	2.64	2.72	2.55	2.38	2.68	2.45	1.82
Difference of Differences		0.44	0.31	1.61	-0.79	-1.05	-0.67	-0.59	-0.76	-0.93	-0.62	-0.86	-1.49

	10 YOS												
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Married, no Children	94.87	91.84	91.75	90.23	90.80	86.22	91.94	88.89	90.31	93.98	90.19	90.58	89.81
Married, with Children	94.28	94.00	92.52	88.74	93.48	94.50	94.02	94.45	93.34	93.41	92.54	93.46	92.77
Not Married, no Children	91.23	91.25	89.61	84.05	89.24	90.93	91.20	90.69	90.97	91.48	89.97	90.72	90.29
Not Married, with Children	92.38	92.08	90.00	86.21	92.52	93.90	92.77	93.64	92.77	94.01	93.62	90.58	91.26
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Not Married, no Children	91.23	91.25	89.61	84.05	89.24	90.93	91.20	90.69	90.97	91.48	89.97	90.72	90.29
Family	94.249	93.366	92.186	88.812	92.797	92.554	93.422	93.080	92.553	93.605	92.019	92.454	91.856
Difference	3.02	2.12	2.58	4.76	3.56	1.62	2.22	2.39	1.58	2.12	2.05	1.73	1.57
Difference of Differences		-0.90	-0.44	1.74	0.54	-1.40	-0.80	-0.63	-1.44	-0.89	-0.97	-1.29	-1.45

	11 YOS												
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Married, no Children	95.59	96.14	92.15	90.31	92.73	91.41	93.49	90.60	94.69	94.27	95.48	95.79	91.70
Married, with Children	96.47	95.67	94.71	90.18	94.69	94.92	94.52	95.44	95.86	94.99	95.45	95.27	94.74
Not Married, no Children	93.86	93.84	92.60	88.07	92.49	93.54	92.20	93.32	92.82	94.05	93.87	94.62	92.93
Not Married, with Children	94.68	93.48	92.82	90.08	93.10	93.56	93.96	95.46	93.90	93.85	92.57	93.90	92.93
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Not Married, no Children	93.86	93.84	92.60	88.07	92.49	93.54	92.20	93.32	92.82	94.05	93.87	94.62	92.93
Family	96.124	95.563	94.079	90.195	94.152	94.080	94.255	94.435	95.438	94.732	95.221	95.281	93.868
Difference	2.26	1.72	1.48	2.13	1.66	0.54	2.05	1.11	2.62	0.68	1.35	0.66	0.94
Difference of Differences		-0.54	-0.79	-0.14	-0.60	-1.72	-0.21	-1.15	0.35	-1.58	-0.91	-1.60	-1.33

	12 YOS												
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Married, no Children	95.62	97.12	95.96	91.69	96.43	94.81	95.32	92.08	94.93	96.90	95.97	95.01	93.96
Married, with Children	96.99	96.63	95.13	90.98	95.55	96.61	96.47	97.29	96.38	96.37	96.98	96.86	95.40
Not Married, no Children	94.97	94.11	92.71	88.23	94.88	94.90	93.99	96.06	94.83	96.32	94.68	95.46	94.79
Not Married, with Children	93.71	94.82	93.01	87.29	91.78	95.90	93.95	95.83	95.02	94.53	96.14	96.06	94.47
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Not Married, no Children	94.97	94.11	92.71	88.23	94.88	94.90	93.99	96.06	94.83	96.32	94.68	95.46	94.79
Family	96.425	96.559	95.085	90.760	95.362	96.199	96.015	96.144	95.967	96.331	96.692	96.380	95.001
Difference	1.46	2.45	2.37	2.53	0.48	1.30	2.02	0.08	1.14	0.01	2.01	0.92	0.21
Difference of Differences		0.99	0.92	1.07	-0.97	-0.16	0.57	-1.37	-0.32	-1.44	0.56	-0.54	-1.24

	13 YOS												
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Married, no Children	96.17	89.58	88.74	84.59	91.30	91.03	93.03	92.59	94.62	95.10	96.69	97.73	97.78
Married, with Children	95.52	91.03	88.91	85.46	90.51	92.25	91.90	93.08	93.04	96.52	97.14	97.67	96.67
Not Married, no Children	93.70	86.91	85.15	80.59	86.97	90.33	86.38	88.20	89.24	95.15	96.65	95.54	95.74
Not Married, with Children	92.94	81.86	83.11	79.29	81.82	89.93	88.87	91.13	86.54	94.52	94.53	96.01	97.13
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Not Married, no Children	93.70	86.91	85.15	80.59	86.97	90.33	86.38	88.20	89.24	95.15	96.65	95.54	95.74
Family	95.421	89.982	88.349	84.735	89.846	91.817	91.835	92.822	92.785	96.067	96.834	97.547	96.942
Difference	1.72	3.07	3.20	4.15	2.88	1.49	5.46	4.62	3.55	0.92	0.18	2.01	1.20
Difference of Differences		1.35	1.48	2.42	1.16	-0.23	3.73	2.90	1.82	-0.80	-1.54	0.29	-0.52

	14 YOS												
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Married, no Children	97.90	98.08	98.62	93.25	98.38	94.17	98.38	98.43	97.02	98.56	99.24	97.84	96.85
Married, with Children	98.43	97.63	98.08	93.87	97.69	98.02	97.56	98.22	97.69	98.18	98.18	98.15	97.85
Not Married, no Children	97.12	97.64	96.65	93.11	96.46	96.67	97.59	97.45	97.00	98.44	97.87	98.25	96.78
Not Married, with Children	97.45	96.43	96.71	91.58	96.99	97.14	96.15	98.13	97.67	97.80	97.72	96.77	96.05
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Not Married, no Children	97.12	97.64	96.65	93.11	96.46	96.67	97.59	97.45	97.00	98.44	97.87	98.25	96.78
Family	98.248	97.602	98.049	93.557	97.743	97.271	97.578	98.249	97.565	98.221	98.349	97.975	97.502
Difference	1.13	-0.04	1.40	0.45	1.28	0.60	-0.01	0.80	0.57	-0.22	0.48	-0.27	0.72
Difference of Differences		-1.17	0.27	-0.68	0.15	-0.53	-1.14	-0.33	-0.56	-1.35	-0.65	-1.40	-0.41

	15 YOS												
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Married, no Children	99.49	99.07	99.01	99.03	98.99	99.54	97.27	99.15	98.19	99.11	97.47	96.05	92.11
Married, with Children	98.79	98.57	98.21	98.51	98.09	98.53	98.47	98.74	98.74	98.62	98.30	96.94	96.40
Not Married, no Children	98.66	97.81	97.72	97.01	97.29	98.12	98.10	97.67	97.49	97.65	97.85	95.02	94.68
Not Married, with Children	98.08	97.74	98.03	97.58	98.01	98.42	98.03	98.44	97.31	97.71	97.37	94.63	93.76
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Not Married, no Children	98.66	97.81	97.72	97.01	97.29	98.12	98.10	97.67	97.49	97.65	97.85	95.02	94.68
Family	98.848	98.579	98.325	98.506	98.223	98.681	98.235	98.781	98.526	98.631	98.077	96.591	95.401
Difference	0.19	0.77	0.61	1.50	0.93	0.56	0.14	1.11	1.04	0.98	0.23	1.57	0.72
Difference of Differences		0.58	0.42	1.31	0.75	0.37	-0.05	0.92	0.85	0.79	0.04	1.38	0.53

	16 YOS												
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Married, no Children	100.00	97.46	100.00	98.94	98.85	98.85	98.04	97.25	99.04	100.00	99.02	96.46	93.15
Married, with Children	98.95	98.98	98.93	98.79	98.86	99.07	98.76	99.21	98.99	99.11	99.02	98.35	97.87
Not Married, no Children	98.65	97.96	97.92	98.36	98.24	99.18	99.18	99.67	98.67	99.34	98.49	97.80	97.15
Not Married, with Children	98.81	98.95	97.86	97.76	97.50	97.66	97.67	99.15	98.28	96.97	99.34	97.48	97.08
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Not Married, no Children	98.65	97.96	97.92	98.36	98.24	99.18	99.18	99.67	98.67	99.34	98.49	97.80	97.15
Family	99.109	98.750	99.015	98.721	98.738	98.912	98.550	98.899	98.937	99.082	99.046	97.948	96.979
Difference	0.46	0.79	1.10	0.36	0.50	-0.27	-0.63	-0.77	0.27	-0.26	0.56	0.15	-0.17
Difference of Differences		0.33	0.64	-0.10	0.04	-0.73	-1.09	-1.23	-0.19	-0.72	0.10	-0.31	-0.63

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX C. HISTORICAL GI BILL USAGE RATE AND COST

Table 8. Historical GI Bill User Rate Based on User Type. Adapted from VA (n.d.-d).

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
UR Veteran	47.5%	42.1%	56.7%	65.5%	72.9%	68.3%	68.3%	95.4%	88.5%	80.5%	62.2%	72.8%	59.7%	65.3%	61.2%	58.3%
UR Spouse				0.0%	0.0%	3.4%	5.0%	5.3%	4.8%	4.3%	3.1%	3.9%	3.0%	3.4%	3.4%	3.2%
UR Children				0.0%	6.4%	8.7%	8.7%	12.4%	11.7%	11.3%	8.8%	10.8%	9.0%	10.8%	10.8%	10.9%

Table 9. Historical GI Bill Cost Data. Adapted from BLS (n.d.-a), CBO (2019), VA (n.d.-d)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
PGIB Veteran User	34190	313892	440208	497402	617814	651251	650437	654385	621973	584879	585288	529890	487454
PGIB Spouse User			32142	54367	40600	40093	38370	35585	35414	30621	31458	30537	27718
PGIB Children User	195	51786	82974	94509	95838	98429	101707	100113	98076	92590	100004	97496	94842
PGIB Cost (\$000s)	\$ 63,543	\$ 5,102,664	\$ 8,126,055	\$ 8,453,319	\$ 10,159,781	\$ 10,745,649	\$ 11,199,215	\$ 11,583,408	\$ 11,056,959	\$ 10,673,744	\$ 10,784,939	\$ 10,108,335	\$ 9,141,053
PGIB Average User Cost	\$ 1,848	\$ 13,954	\$ 14,633	\$ 13,080	\$ 13,470	\$ 13,606	\$ 14,167	\$ 14,661	\$ 14,636	\$ 15,074	\$ 15,047	\$ 15,364	\$ 14,985
PGIB Veteran Average Cost	\$ 1,848	\$ 16,194	\$ 16,983	\$ 15,180	\$ 15,633	\$ 15,791	\$ 16,442	\$ 17,015	\$ 16,986	\$ 17,494	\$ 17,463	\$ 17,831	\$ 17,391
PGIB Spouse Average Cost	\$ 1,848	\$ 12,037	\$ 12,623	\$ 11,283	\$ 11,620	\$ 11,737	\$ 12,221	\$ 10,897	\$ 12,625	\$ 13,003	\$ 12,980	\$ 13,253	\$ 12,926
PGIB Child Average	\$ 1,848	\$ 13,656	\$ 14,320	\$ 12,801	\$ 13,182	\$ 13,315	\$ 13,864	\$ 16,633	\$ 14,323	\$ 14,752	\$ 14,726	\$ 15,036	\$ 14,665
PGIB Veterans Cost (\$000s)	\$ 63,183	\$ 5,083,317	\$ 7,475,841	\$ 7,550,648	\$ 9,658,161	\$ 10,283,657	\$ 10,694,293	\$ 11,134,374	\$ 10,564,838	\$ 10,232,062	\$ 10,220,884	\$ 9,448,418	\$ 8,477,326
PGIB Transfer Entitlement Cost (\$000s)	\$ 360	\$ 707,182	\$ 1,593,940	\$ 1,823,198	\$ 1,735,112	\$ 1,781,179	\$ 1,879,012	\$ 2,052,924	\$ 1,851,888	\$ 1,764,053	\$ 1,880,933	\$ 1,870,644	\$ 1,749,137
PGIB Veterans Cost (\$000s) (Adjusted for inflation)	\$ 89,960	\$ 7,153,752	\$ 10,162,659	\$ 10,046,893	\$ 12,728,491	\$ 13,330,705	\$ 13,839,485	\$ 14,177,398	\$ 13,182,805	\$ 12,453,443	\$ 12,224,177	\$ 11,168,030	\$ 9,433,569
PGIB Transfer Entitlement Cost (\$000s)(Adjusted for inflation)	\$ 513	\$ 995,217	\$ 2,166,801	\$ 2,425,947	\$ 2,286,704	\$ 2,308,942	\$ 2,431,629	\$ 2,613,989	\$ 2,310,785	\$ 2,147,029	\$ 2,249,596	\$ 2,211,102	\$ 1,946,439
Spouse PGIB Transfer Entitlement Cost (\$000s)(Adjusted for inflation)	\$ -	\$ -	\$ 551,539	\$ 816,231	\$ 621,726	\$ 609,996	\$ 606,820	\$ 493,759	\$ 557,911	\$ 484,615	\$ 488,354	\$ 478,378	\$ 398,711
Child PGIB Transfer Entitlement Cost (\$000s) (Adjusted for inflation)	\$ 513	\$ 995,217	\$ 1,615,263	\$ 1,609,716	\$ 1,664,979	\$ 1,698,946	\$ 1,824,808	\$ 2,120,230	\$ 1,752,874	\$ 1,662,414	\$ 1,761,242	\$ 1,732,724	\$ 1,547,729
Navy Enlisted to DOD Service Member Ratio	19.19%	18.91%	18.74%	18.65%	19.24%	19.96%	20.48%	20.42%	20.27%	20.55%	20.72%	21.26%	21.30%
PGIB Transfer Entitlement Cost (\$000s)(Adjusted for Navy Enlisted)	\$ 98	\$ 188,156	\$ 406,081	\$ 452,318	\$ 439,877	\$ 460,860	\$ 498,059	\$ 533,754	\$ 468,433	\$ 441,129	\$ 466,027	\$ 470,144	\$ 414,533
Navy Enlisted Veteran Users	6560	59344	82500	92741	118844	129988	133226	133620	126084	120169	121248	112670	103813
Navy Enlisted Spouse Users	0	0	6024	10137	7810	8002	7859	7266	7179	6291	6517	6493	5903
Navy Enlisted Child Users	37	9791	15550	17621	18436	19646	20832	20442	19882	19024	20717	20730	20199
New Spouse Users					10543	9685	8742	5772	6877	5256	5714	5434	5338
New Children Users					24888	23776	23171	16240	19046	15893	18165	17351	18263
New Navy Spouse Users					2028	1933	1791	1179	1394	1080	1184	1155	1137
New Navy Children Users					4788	4746	4746	3316	3861	3265	3763	3689	3889

LIST OF REFERENCES

- An Act to Amend Chapter 35 of Title 38 of the United States Code, in Order to Increase the Educational Assistance Allowances Payable under the War Orphans Educational Assistance Program, Pub. L. No. 89–222, 79 Stat. 896 (1965).
<https://www.congress.gov/bill/89th-congress/house-bill/205/text>
- An Act to Amend title 38 of the United States Code with Respect to Compensation and Educational Assistance for Widows of Veterans to Make Certain Widows and Children Eligible for Care in Veterans Administration Hospitals, and to Change the Limitation of the Periods of Educational Assistance Available Under Part III of Such Title, Pub. L. No 90-631, 82 Stat. 1331 (1968).
<https://www.congress.gov/bill/90th-congress/house-bill/16025/text?s=2&r=1&q=%7B%22search%22%3A%2290-631%22%7D>
- Army Human Resources Command. (2023). *Post 911 GI Bill frequently asked questions*.
<https://www.hrc.army.mil/content/Post%20911%20GI%20Bill%20Frequently%20Asked%20Questions>
- Army Recruiting Command. (n.d.). *Recruiting facts and figures*
https://recruiting.army.mil/pao/facts_figures/
- Bennett, J. (2019). *Veteran households in U.S. are economically better off than those of non-veterans*. Pew Research Center. <https://www.pewresearch.org/short-reads/2019/12/09/veteran-households-in-u-s-are-economically-better-off-than-those-of-non-veterans/>
- Biographical Directory of the United States Congress. (n.d.-a). Scott, Robert C., 1947–.
<https://bioguide.congress.gov/search/bio/S000185>
- Biographical Directory of the United States Congress. (n.d.-b). *Webb, James H. (Jim) 1946 -*. <https://bioguide.congress.gov/search/bio/W000803>
- Bureau of Labor Statistics. (n.d.-a). *CPI inflation calculator*. <https://data.bls.gov/cgi-bin/cpicalc.pl>
- Bureau of Labor Statistics. (n.d.-b). *Labor force statistics from the current population survey*. https://data.bls.gov/timeseries/LNS14049526&series_id=LNS14049601
- Carr, W. (2009). *Directive-type memorandum (DTM) 09–003: Post-9/11 GI Bill* [Memorandum DTM 09–003]. Department of Defense. <https://www.navy.mil/Content/NavigationPages/09-003-Post-9-11-GI-Bill.aspx>
- Congressional Budget Office. (2019). *The Post-9/11 GI Bill: Beneficiaries, choices, and cost*. <https://www.cbo.gov/system/files/2019-05/55179-Post911GIBill.pdf>

- Congressional Budget Office. (2023). *The 2023 Long-Term Budget Outlook*.
<https://www.cbo.gov/publication/59014>
- Continuing Appropriation FY2001, Pub. L. No. 106–416, 114 Stat. 1811 (2000).
<https://www.congress.gov/bill/106th-congress/house-joint-resolution/122/text?s=8&r=1&q=%7B%22search%22%3A%22Public+Law+106-416%22%7D>
- Defense Casualty Analysis System. (n.d.). *U.S. active duty military deaths by year and manner*. Retrieved September 1, 2023, from <https://dcas.dmdc.osd.mil/dcas/app/summaryData/deaths/byYearManner>
- Defense Manpower Data Center. (2008). *2008 QuickCompass of active duty members: Tabulations of responses*. Office of People Analytics. <https://www.opa.mil/research-analysis/quality-of-work-life/career-factors/2008-quickcompass-of-active-duty-members/2008-quickcompass-of-active-duty-members-tabulations-of-responses/>
- Department of Defense Authorization Act, 1985, Pub. L. No. 98–525, 98 Stat. 2492 (1984). <https://www.congress.gov/bill/98th-congress/house-bill/5167/text?s=4&r=1&q=%7B%22search%22%3A%5B%22P.L.+98-525%22%5D%7D>
- Department of Veterans Affairs [VA]. (2021a). *America’s wars* [Fact sheet].
https://www.va.gov/opa/publications/factsheets/fs_americas_wars.pdf
- Department of Veterans Affairs [VA]. (2021b). *VA debt management*.
<https://www.va.gov/resources/va-debt-management/>
- Department of Veterans Affairs [VA]. (2023a). *Fry scholarships*. <https://www.va.gov/education/survivor-dependent-benefits/fry-scholarship/>
- Department of Veterans Affairs [VA]. (2023b). *Montgomery GI Bill active duty (MGIB-active duty)* [Fact sheet]. <https://www.va.gov/education/about-gi-bill-benefits/montgomery-active-duty/>
- Department of Veterans Affairs [VA]. (2023c). *Transferred education benefits for family members* [Fact sheet]. <https://www.va.gov/education/survivor-dependent-benefits/transferred-benefits/#when-can-i-use-transferred-ben>
- Department of Veterans Affairs [VA]. (2023d, August 10). *Post-9/11 GI Bill (chapter 33) rates*. <https://www.va.gov/education/benefit-rates/post-9-11-gi-bill-rates/>
- Department of Veterans Affairs [VA]. (n.d.-a). *Appendix A2 – Chapter 30 rates FY 2007 – FY 2023* [Fact sheet]. https://www.knowva.ebenefits.va.gov/system/templates/selfservice/va_ssnew/help/customer/locale/en-US/portal/554400000001018/content/554400000224976/Appendix-A2-Chapter-30-Rates-FY-2007-FY-2023%3FarticleViewContext=article_view_related_article?query=554400000226316#Chapter30Rates

- Department of Veterans Affairs [VA]. (n.d.-b). *Appendix B – Chapter 33 rates* [Fact sheet]. https://www.knowva.ebenefits.va.gov/system/templates/selfservice/va_ssnew/help/customer/locale/en-US/portal/55440000001018/content/554400000225005/Appendix-B-Chapter-33-Rates%3FarticleViewContext=article_view_related_article?query=554400000226316#Chapter30Rates
- Department of Veterans Affairs [VA]. (n.d.-c). *Appendix C – Chapter 35 rates* [Fact sheet]. https://www.knowva.ebenefits.va.gov/system/templates/selfservice/va_ssnew/help/customer/locale/en-US/portal/55440000001018/content/554400000225098/Appendix-C-Chapter-35-Rates%3FarticleViewContext=article_view_related_article?query=554400000226316#Chapter30Rates
- Department of Veterans Affairs [VA]. (n.d.-d). *Veterans Benefits Administration report/annual benefits report archive*. <https://www.benefits.va.gov/REPORTS/abr/archive.asp>
- Department of Veterans Affairs Medical Facility Authorization Act of 2006, Pub. L. No. 109–461, 120 Stat. 3403 (2006). <https://www.congress.gov/bill/109th-congress/house-bill/5815/text?s=3&r=4&q=%7B%22search%22%3A%22Public+Law+109-461%22%7D>
- Dortch, C. (2014). *The Post-9/11 Veterans Educational Assistance Act of 2008 (Post-9/11 GI Bill): Primer and issues* (CRS Report No. R42755). Congressional Research Service. https://www.everycrsreport.com/files/20140728_R42755_86596441d47027f9321ea2f633e03e9d1f97d560.pdf
- Dortch, C. (2021). *The Post-9/11 GI Bill: A primer* (CRS Report No. R42755). Congressional Research Service. <https://crsreports.congress.gov/product/pdf/R/R42755/22>
- GI Bill Improvement Act of 1977, Pub. L. No. 95–202, 91 Stat. 1433 (1977). <https://www.congress.gov/bill/95th-congress/house-bill/8701/text?s=6&r=1&q=%7B%22search%22%3A%22Public+Law+95-202%22%7D>
- Greenwalt, P. (2021). *Soldier pay in the American Revolution*. American Battlefield Trust. <https://www.battlefields.org/learn/articles/soldier-pay-american-revolution#:~:text=As%20the%20year%201775%20unfolded,collecting%20%2450%20per%20calendar%20month.>
- Harry W. Colmery Veterans Educational Assistance Act of 2017, Pub. L. No. 115–48, 131 Stat. 973 (2017). <https://www.congress.gov/bill/115th-congress/house-bill/3218/text?s=2&r=1&q=%7B%22search%22%3A%5B%22%5C%22Harry+W.+Colmery+Veterans+Educational+Assistance+Act%5C%22%22%5D%7D>
- History.com Editors. (2019, June 7). *G.I. bill*. <https://www.history.com/topics/world-war-ii/gi-bill>

- Internal Revenue Service Restructuring and Reform Act of 1998, Pub. L. No. 105–206, 112 Stat. 3007 (1998). <https://www.congress.gov/bill/105th-congress/house-bill/2676/text>
- Lay, R. (2009). Applying the combinatorial retention auction mechanism (CRAM) to a cost-benefit analysis of the Post 9/11 era GI bill transferability benefit [Master's thesis, Naval Postgraduate School]. Naval Postgraduate School. https://apps.dtic.mil/sti/citations/active_dutyA501669
- Limitation on Period of Assistance under Two or More Programs, 38 U.S.C. § 3695 (2023). <https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title38-section3695&num=0&edition=prelim#effectivedate-amendment-note>
- Military History Matters. (2019, October 28). *Behind the image: Number of people mobilised in World War II*. <https://www.military-history.org/feature/world-war-2/behind-the-image-number-of-people-mobilised-in-world-war-ii.htm>
- MyNavy HR. (n.d.-a). *MGIB booster program*. <https://www.mynavyhr.navy.mil/Career-Management/Education/GI-Bill/MGIB-Booster/>
- MyNavy HR. (n.d.-b). *Title 38 USC, chapter 32, Veterans Educational Assistance Program (VEAP)*. Department of the Navy. <https://www.mynavyhr.navy.mil/Career-Management/Education/GI-Bill/VEAP/>
- MyNavy HR. (n.d.-c). *Title 38 USC, chapter 35, survivors' and dependents' education assistance*. Department of the Navy. <https://www.mynavyhr.navy.mil/Career-Management/Education/GI-Bill/Survivors-Education/>
- National Archives. (2022a). *Pre-World War I U.S. Army pension and bounty land applications*. <https://www.archives.gov/research/military/army/pensions>
- National Archives. (2022b). *Servicemen's Readjustment Act (1944)*. <https://www.archives.gov/milestone-documents/servicemens-readjustment-act#:~:text=Signed%20into%20law%20by%20President,%2C%20unemployment%20insurance%2C%20and%20housing>
- National Center for Education Statistics. (2022). Table 330.10. [Transfer Entitlement corrected] Average undergraduate tuition, fees, room, and board rates charged for full-time students in degree-granting postsecondary institutions, by level and control of institution: Selected academic years, 1963–64 through 2021–22 [Data set]. Digest of Education Statistics. https://nces.ed.gov/programs/digest/d22/tables/dt22_330.10.asp
- National Center for Education Statistics. (n.d.). Table 401.30. Federal on-budget funds for education, by level/educational purpose, agency, and program: Selected fiscal years, 1970 through 2021. Digest of Education Statistics. https://nces.ed.gov/programs/digest/d21/tables/dt21_401.30.asp

- National Park Service. (2023, July 25). *The 1932 bonus army*. <https://www.nps.gov/articles/the-1932-bonus-army.htm>
- Nudd, J. (2015). Using Revolutionary War pension files to find family information. *Prologue Magazine*, 47(2). <https://www.archives.gov/publications/prologue/2015/summer/rev-war-pensions.html>
- Office of Postsecondary Education. (2022). *Title IV revenue and non-federal education assistance funds (90/10)* [Issue paper 7]. Department of Education. <https://www2.ed.gov/policy/highered/reg/hearulemaking/2021/790-10.pdf>
- Office of Program and Data Analyses. (2000). *Data on veterans of the Korean War* [Fact sheet]. <https://www.va.gov/vetdata/docs/specialreports/kw2000.pdf>
- Office of the Under Secretary of Defense for Personnel and Readiness. (2022a). *Montgomery GI Bill program* (DOD Instruction 1322.16). Department of Defense. <https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/132216p.PDF?ver=5pikGHvY6TcDJ0Zwd1cddw%3D%3D>
- Office of the Under Secretary of Defense for Personnel and Readiness. (2022b). *Post-9/11 GI Bill* (DOD Instruction 1341.13). Department of Defense. https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/134113p.pdf?ver=AgzdQjh8ZYwPrNjKYOB_0Q%3D%3D
- Office of the Under Secretary of Defense for Personnel and Readiness & Office of the Deputy Assistant Secretary of Defense for Military Personnel Policy. (2013, June 7). *Post-9/11 GI Bill*. *Federal Register*, 78(110), 34250. <https://www.federalregister.gov/documents/2013/06/07/2013-13504/post-911-gi-bill>
- Official Data Foundation. (2023). *Inflation calculator*. Retrieved September 1, 2023, from <https://www.officialdata.org/>
- Orszag, P. (2008). *Preliminary estimate of costs for S. 22*. Congressional Budget Office. <https://www.cbo.gov/sites/default/files/110th-congress-2007-2008/costestimate/s221.pdf>
- Post-9/11 Veterans Educational Assistance Act of 2007, H.R. 2702, 110th Cong. (2007a). <https://www.congress.gov/bill/110th-congress/house-bill/2702/text>
- Post-9/11 Veterans Educational Assistance Act of 2007, S. 22, 110th Cong. (2007). <https://www.congress.gov/bill/110th-congress/senate-bill/22/text?s=4&r=1&q=%7B%22search%22%3A%5B%22%5C%22Jim+webb%5C%22+%5C%22GI+Bill%5C%22%22%5D%7D>
- Post-9/11 Veterans Educational Assistance Act of 2008, H.R. 5740, 110th Cong. (2008). <https://www.congress.gov/bill/110th-congress/house-bill/5740/text>

- Quinn, M. (2023, June 26). *Supreme Court takes up dispute over education benefits for veterans*. CBS News. <https://www.cbsnews.com/news/supreme-court-gi-bill-post-911-educational-benefits-for-veterans/>
- Rudisill v. McDonough, Secretary of Veterans Affairs, 22–888 (U.S. Supreme Court). https://www.supremecourt.gov/DocketPDF/22/22-888/263548/20230414133847130_Brief%20of%20Amici%20Curiae%20Supporting%20Petitioner.pdf
- Scott, C. (2012). *4veterans affairs: Historical budget authority, FY1940-FY2012* (CRS Report No. RS22897). Congressional Research Service. <https://crsreports.congress.gov/product/pdf/RS/RS22897>
- Social Security Administration. (2015). *Education and lifetime earnings* <https://www.ssa.gov/policy/docs/research-summaries/education-earnings.html#:~:text=Men%20with%20bachelor%27s%20degrees%20earn,earnings%20than%20high%20school%20graduates>
- Supplemental Appropriations Act, 2008, Pub. L. No. 110–252, 122 Stat. 2323 (2008). <https://www.congress.gov/bill/110th-congress/house-bill/2642/text?s=8&r=1&q=%7B%22search%22%3A%5B%22%5C%22110-252%5C%22%22%5D%7D>
- Supplemental Appropriations Act, 2009, Pub. L. No. 111–32, 123 Stat. 1859 (2009). <https://www.congress.gov/bill/111th-congress/house-bill/2346/text?s=6&r=1&q=%7B%22search%22%3A%5B%22%5C%22111-32%5C%22%22%5D%7D>
- VA Office of Inspector General, Office of Audits & Evaluations. (2010). *Veterans Benefits Administration: Review of alleged improper emergency payments for education benefits*. (2010). Department of Veterans Affairs. <https://www.va.gov/oig/pubs/VAOIG-10-01248-249.pdf>
- Veterans Benefits Act of 2003, Pub. L. No. 108–183, 117 Stat. 2651 (2003). <https://www.congress.gov/bill/108th-congress/house-bill/2297/text?s=10&r=1&q=%7B%22search%22%3A%22Public+Law+108-183%22%7D>
- Veterans Benefits Administration. (2007a). *Montgomery GI Bill (Chapter 30) kicker development and processing* (RPO LTR 22–07-11). https://www.knowva.ebenefits.va.gov/system/templates/selfservice/va_ssnew/help/customer/locale/en-US/portal/554400000001018/content/554400000062482/22-07-11-Montgomery-GI-Bill-Chapter-30-Kicker-Development-and-Processing
- Veterans Benefits Administration. (2007b). *Part 1: Chapter 3 – Overview of education programs*. https://www.benefits.va.gov/warms/docs/admin22/m22_4/part01/ch03.htm#t303

- Veterans Education and Benefits Expansion Act of 2001, Pub. L. No. 107–103, 115 Stat. 2412 (2001). <https://www.congress.gov/bill/107th-congress/house-bill/1291/text?s=8&r=1&q=%7B%22search%22%3A%22Public+Law+107-103%22%7D>
- Veterans Rehabilitation and Education Amendments of 1980, Pub. L. No. 96–466, 94 Stat. 2171 (1980). <https://www.congress.gov/bill/96th-congress/house-bill/5288/text?s=8&r=1&q=%7B%22search%22%3A%22Public+Law+96-466%22%7D>
- Veterans’ Benefits Amendments of 1989, Pub. L. No. 101–237, 103 Stat. 2062 (1989). <https://www.congress.gov/bill/101st-congress/house-bill/901/text?s=2&r=1&q=%7B%22search%22%3A%22Public+Law+101-237%22%7D>
- Veterans’ Benefits Improvement Act of 1984, Pub. L. No. 98–543, 98 Stat. 2735 (1984). <https://www.congress.gov/bill/98th-congress/house-bill/5688/text>
- Veterans’ Education and Employment Assistance Act of 1976, Pub. L. No. 94–502, 90 Stat. 2383 (1976). <https://www.congress.gov/bill/94th-congress/senate-bill/969/text?s=2&r=1&q=%7B%22search%22%3A%5B%2294-502%22%5D%7D>
- Veterans’ Readjustment Assistance Act., Pub. L. No. 82–550, 66 Stat. 663 (1952). <https://www.congress.gov/bill/82nd-congress/house-bill/7656/text?s=4&r=1&q=%7B%22search%22%3A%22Public+Law+82-550%22%7D>
- Veterans’ Readjustment Benefits Act of 1966, Pub. L. No. 89–358, 80 Stat. 12 (1966). <https://www.congress.gov/bill/89th-congress/senate-bill/9/text?s=7&r=1&q=%7B%22search%22%3A%5B%22P.L.+89-358%22%5D%7D>
- Waite, E. (1893). Veteran’s pensions: The law and its administration from the Revolutionary War to the Civil War. *Harper’s New Monthly Magazine*, 86(512) p. 253. <https://socialwelfare.library.vcu.edu/social-security/veterans-pensions-early-history/>
- War Orphans’ Educational Assistance Act of 1956, Pub. L. No. 84–634, 70 Stat. 411 (1956). <https://www.congress.gov/bill/84th-congress/house-bill/9824/text?s=8&r=2&q=%7B%22search%22%3A%5B%2284-634%22%5D%7D>
- Wenger, J., Miller, T., Baird, M., Buryk, P., Daugherty, L., Graf, M., Hollands, S., Jahedi, S., & Yeung, D. (2017). *Are current military education benefits efficient and effective for the services?* (Report No. RR-1766-OSD). RAND. https://www.rand.org/pubs/research_reports/RR1766.html

THIS PAGE INTENTIONALLY LEFT BLANK

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
Fort Belvoir, Virginia
2. Dudley Knox Library
Naval Postgraduate School
Monterey, California



DUDLEY KNOX LIBRARY

NAVAL POSTGRADUATE SCHOOL

WWW.NPS.EDU

WHERE SCIENCE MEETS THE ART OF WARFARE