

MILITARY BONUSES, EDUCATION AND NATIONAL SECURITY

By

Clinton H. Whitehurst, Jr.

October 2011

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About the Author

Clint Whitehurst holds a Ph.D. in economics from the University of Virginia and did post doctoral work in defense studies at Edinburgh University (Scotland). A majority of his research and publications are in the areas of transportation and logistics and defense studies. He is a Professor of Management and Economics, Emeritus at Clemson University, an Adjunct Scholar of the American Enterprise Institute, Washington, D. C. and a Senior Fellow of the Strom Thurmond of Government and Public Affairs at Clemson University.

The young Roman was educated for war from his childhood; He studied the military above all others, and spent ten formative years of his life in field or camp.

Will Durant, *The Story of Civilization: Caesar and Christ*

It was these legions, made up of military trained youth that conquered and mastered a large part of the known world for over three centuries.

INTRODUCTION

This study considers the education of the American military in the context of the education of the U.S. population in general, that is, the pool from which the military services draw their recruits. Assumed is that the educational requirements of our armed services in fulfilling their mission will require mastering current software and hardware technologies in designated military fields as well as the advanced technologies that will occur over the average period of military service.¹

In summary, the education of our military is, and must be, an ongoing process.

To begin an examination of military education is to understand that Congress has granted the U.S. military the absolute authority to set standards of enlistment and commissions. In this respect, Title VII of the Civil Rights Act of 1964, which forbids discrimination in civilian employment does not apply to the military.²

For much of the population in the early days of the Republic the concept of a literate individual and an educated individual was interchangeable, i.e., in a general sense if one could read and write he was considered literate and educated. In today's military the ability to read and write is far below the standard for enlistment.

In later sections of this study the requirements for enlistment and a commission will be discussed in detail. At present, it is enough to note that Sergeant Alvin York, one of the most decorated American soldiers in World War I, including the Congressional Medal of Honor, attended school for only nine months and that Audie Murphy, the most decorated soldier in

American history, had only a 5th grade education.³ It cannot be stated to forcefully that it is incumbent upon the nation to see that such individuals are never denied the opportunity to serve in the military due to lack of an education.

LITERACY AND EDUCATION IN THE UNITED STATES

Literacy

Literacy can be defined in several different ways including the number of years in school, ability to function in terms of reading and understanding basic sources of information, e.g. highway signs, labels on different products, and the ability to complete information requested on simple documents such as an application for a driver's license. The CIA World Fact Book defines literacy in the United States as "age of 15 and over and can read and write."⁴ The New Marriam Webster Dictionary defines illiteracy as (a) having little or no education; unable to read or write; (b) showing a lack of familiarity with the fundamentals of a particular field of knowledge.

Over the past 20 years the U.S. Department of Education has conducted a number of educational studies. A national study released in 2002 found that 21-23 percent of adults were not able to locate information in text, could not make low levels inferences using printed material, and were unable to integrate easily identifiable pieces of information. A later study (2006) by the same authors showed no significant improvement in U.S. adult literacy.⁵ A 2008 study by the National Assessment of Adult Literacy (NAAL) measured prose, document, and quantitative skills. It concluded that 15 percent of the sample could function at the highest level in all three categories, while 40 percent were at the basic or below basic level of proficiency. The 15 percent level was essentially that of university undergraduates and that the average American reads at a 7th or 8th grade level.

In 2011 the National Institute for Literacy estimated that 47 percent of adults in Detroit, Michigan were functionally

illiterate. Another study found that half of this illiterate population received a high school diploma.⁶

Education

*In 2008, 89.9 percent of 18-24 year olds had received a high school diploma or equivalent credential. Another study indicated a high school graduation rate of 68.8 percent not including equivalent credentials.

*In 2008 approximately three million 16-24 year olds were not enrolled in high school and had not earned a high school diploma or alternate credential. These dropouts accounted for eight percent of the 38 million non-institutionalized civilians living in the United States.

*Male age 16-24 had a higher dropout rate (8.5 percent) than females (7.5 percent).

*Persons age 16-17 had lower dropout rates than 18-24 year olds.

*In 2008, the Northeast had the lowest dropout rate (5.6 percent); the South and West 8.8 and 9.1 percent.

In the school year 2007-08 there were 2,965, 028 high school diploma recipients. In the 18-24 year old group, 1,500,000 received a General Education Development (GED) certificate.^{7,8}

U.S. International Rank in Education 2009 (Science, Reading, Mathematics)

In 2009 the Organization of Economically Developed Countries (OECD) administered tests to 470,000 students from 65 nations, including the 34 OECD countries. The group taking the test was defined as “those near the end of compulsory schooling (For the U.S. these were 15 year olds).

U.S scores were: Math 487, Reading 500, Science 502. The U.S. ranked 25th in Math among the 34 OECD countries and scored in the middle with respect to reading and science. Countries scoring above the U.S. in Math were China (Shanghai) 600, Singapore, 562, and Hong Kong 555, and Finland 541.⁹

MILITARY PERSONNEL REQUIREMENTS AND MILITARY ENLISTMENT STANDARDS

The above sections examined the literacy and education pool of individuals from which the military services enlist their recruits. In 2011:

Total U.S Population	313,232,044
Population Available	145,212,012
Fit For Military Service	120,022,084
Reaching Military Age Annually	4,217,412 ¹⁰

Congress has recommended authorizing the below active duty and reserve forces for FY 2011.

Active Duty		Reserves
Army	569,400	
Navy	328,700	
Marine Corps	202,100	
Air Force	332,300	
	1,432,400	
Army National Guard		358,200
Army Reserve		205,000
Navy Reserve		65,500
Marine Corps Reserves		39,600
Air National Guard		106,700
Air Force Reserve		71,200
		846,200 ¹¹

Active Duty Women in Military, September 30, 2010

Percent of Total

Army	76,193	13.5%
Navy	52,546	16.0%
Air Force	64,275	10.2%
Marine Corps	15,257	7.5%
Coast Guard*	5,552	13.1%

*In peacetime the Coast Guard is a part of the Department of Transportation; in wartime, a part of the Navy.

The number in the Services Reserve is 118,233; National Guard 72,182.¹² Standards for the different services are found in Appendix A.

A new source of military leadership in addition to the service academies and college ROTC programs is the Mary Baldwin College's Virginia Women's Institute for Leadership (WMIL) It is the only female corps of cadets in the world.¹³

The active duty military services (Army, Navy, Air Force, Marine Corps) annually enlist approximately 200,00 men and women to fill their active duty ranks.

POST WAR ENTITLEMENTS, 1944-2011

During the Middle Ages armies were acquired and paid for before going into conflict. The process would begin with a King or other high noble or lord raising the monies needed to acquire soldiers, including their wages, armor, horses and other supplies. The responsibility for these acquisitions was tasked to those lower in the chain of command. At some level a representative of the individual raising the armies would inspect the men, weapons and supplies and, if found satisfactory, the agreed amount of payment would be made.¹⁴

The American experience was not that much different. Armies and navies were raised and paid for by the Congress or, in some cases, by the several states in early days of the Republic. (It should be noted that many times Congress was late in paying the wages and appropriating funds for Washington's Continental Army) While some bonuses were agreed upon before enlistment, it was not the general rule. Rather, bonuses were paid for after the war ended. In the United States in the 18th and 19th century many bonuses were paid for by grants of government land.

The practice of "after war payments" for services rendered reached new highs with the GI bills beginning with the end of World War II. Appendix B describes and traces this legislation.

Costs and Benefits

From World War II to the present, legislation has rewarded service with a number of benefits, not the least being funding post service education. There is near unanimous agreement that the education sections of the various GI bills have been a good national investment.

GI Bill 1944. Approximately 7.8 World War II veterans participated in an educational program or 51 percent of total veterans.

Korea GI Bill 1952. Approximately 1.2 million veterans used educational benefits for higher education (college); 860,000 for other educational purposes, and 318,000 for occupational training. Forty three (43) percent of those eligible for benefits took advantage of the educational sections.

Veterans Readjustment Benefits Act of 1966 and Readjustment Assistance Act of 1972, i.e. Vietnam veterans. Approximately 6.8 million used benefits for further education or 72 percent of those eligible. Approximately 17 million ex service men/women took advantage of the education benefits offered in the four above GI bills.¹⁵

In addition to raising the educational level of the general population (no small benefit), many of these 17 million veterans became engineers, scientists, university professors in various fields, and ranking civilian personnel in the Department of Defense that brought a successful conclusion to the Cold War and helped make the United States the predominant military power of the last half century and beyond.

The estimated cost of the educational components of America's GI Bills:

World War II	\$14.5 billion
Korean War	4.5 “
Post Korea-Vietnam Era (1966-89)	42.0 “
Montgomery and Post 9/11 GI Bills	_____*

*As these bills are ongoing in 2011, there is no total estimate for their education costs.¹⁶

THE POOL OF AMERICANS ELIGIBLE FOR MILITARY SERVICE

It was noted above that in 2011 over 120 million Americans were fit for military service. This figure must be furthered examined. In this respect:

How was fitness for military service determined?

How was the required ASVAB scores obtained from this pool?

How was the credit history of over 120 million Americans measured?

How was the number of alcohol/drug addicts obtained?

If it is granted that age information, family status, citizenship/permanent resident and high school diplomas and GED certificates could be estimated from census records and information obtained when 18 year olds register for a possible draft, the validity of over 120 million fit for military service is still a heroic assumption.

Whatever the number of those “fit for military service” may be, that number will be greatly reduced by the number of those individuals not choosing military service, remembering that since 1973 our armed services are composed of volunteers.

Other Observations

In the school year 2007-08 there were approximately three million high school graduates while 1.5 million received a GED certificate. Being generous, assume that there are five million high school and GED graduates annually. Multiply this figure by 10 and you have a 10-year pool of 50 million.

While the maximum age for enlistment is 42, the vast majority of those in the 35-42-age bracket would be professionals with college degrees. The preferred age for new recruits is the 18-24 year bracket.

Earlier studies, prior to the 2011 enlistment class found attrition (those enlistees who did not complete their service contract) rates at 12 months of service for all services was 16.4 percent; at 24 months, 23.6 percent; at 36 months, 29.4 percent.¹⁷ In terms of educational attainment, the higher the level of education, the less attrition rate.

SERVICE RECRUITING AND MILITARY TECHNOLOGY

The military specifies its requirements in the President's Annual Budget; the Congress approves, disapproves or modifies the requests. If approved, private sector entities submit contracts. *When the contract is complete the end product is operated and maintained by military personnel of all ranks—commissioned and enlisted.*

The mission of today's military services is not that much different than that of its grandparents, or even great grandparents. Simply stated, the Army's mission is to take and hold enemy real estate; that of the Air Force is to take the war to the enemy's industrial capabilities and control the air above the battlefield; that of the Navy is to control the sea in designated theaters of operations and, like the Air Force, bring the war to the enemy's homeland; that of the Marine Corps is to spearhead and operations whether from the sea, air or on the ground.

Although the missions remain the same, the capability (technology) to successfully complete a mission is vastly different. While Sergeant Alvin York and Audie Murphy excelled with the military technology of the time, today's military men and women must have the educational skills to master not only present day technology but the technologies of the future.

Today's Military Technology (Not an exhaustive list)

Unmanned Aerial Vehicles (UAV---drones the size of a small plane)
F-22 Raptor---Twin engine maneuverable, stealth fighter.
F-35 Lightning II---Stealth multi-role fighter designed for ground attack, reconnaissance, and air defense. There are three

versions: conventional take off, short take off, vertical landing, and a aircraft carrier variant.

Missiles—laser guided, air, land, sea; intercontinental ballistic, land and sea based.

Missile defense systems---Patriot Air and Missile Defense System. Purpose to counter tactical ballistic, cruise missiles and aircraft. Patriot Advanced Capability-3 is an advanced surface to air guided missile defense system.

Aegis Ballistic Defense System--- Designed to intercept ballistic missile post-boost phase and prior to reentry. The Standard Missile-3 is a ship based missile, a part of the Aegis system.

Satellite Command Control System---Purpose is to control the battlefield.

High technology wireless communications systems.

Abrams Battle Tank---Worlds most sophisticated battle tank.

Artillery capable of firing tactical nuclear weapons.

Surveillance satellites and airborne warning and control aircraft (AWAC)

Nuclear Powered Aircraft Carriers—Nimitz class and successor CVN-21 (Gerald R Ford)

GPS Targeting Systems.

Surface to Air Missiles. Also see Patriot Air and Missile Defense System.

Information Technology---A central and commanding element in American military dominance.

Future Military Technology (Not an exhaustive list)

Miniature Unmanned Aerial Vehicles (UAV)---Small enough to be man portable.

Micro Air Vehicle (MAV)---Maximum length 6 inches, capable of hovering and vertical flight.

Boeing X-45---Unmanned combat air vehicle.

Northrop Grumman X-47---Unmanned combat air vehicle.

Future Force Warrior System---System includes a weapon, head to toe protection, an on board computer network and a soldier worn power source.

Arc Light Missile---Ship based weapon system capable of striking targets anywhere on the globe. Based on SM-3 missile. High productivity computer systems.

MAHEM—Magneto Hydrodynamic Explosive Munitions--- Molten penetrating munitions. Designed to shoot projectiles that melt on impact. One use is anti-tank weapon.

Sources: American Forces Press Service.

Future Warrior. Boot, Max. The Paradox of Military Technology. Gache, Gabriel. DARPA Starts Cooking Science Fiction Weapons Systems.¹⁸ Wall Street Journal. A “Geriatric” US Arsenal Needs Expensive Face Lift (September 15, 2011). Whitehurst, Clint. A Citizen’s Guide to National Defense and National Security. Strom Thurmond Institute, 2010. Wikipedia the free encyclopedia: Aegis Ballistic Missile Defense System, DARPA, Defense Advanced Research Project Agency, Future Force Warrior Lockheed Martin F-35 Lightning II, Miniature UAV, United States Armed Forces.

ENLISTMENT BONUSES

If you enlist in the military you may be eligible for up to \$40,000 in cash bonuses. Your actual bonus will depend on the service branch, specific job specialty; also known as rating (Navy) AFCS (Air Force) or Military Occupation Specialty (MOS) (Army and Marine Corp), and length of enlistment contract.

Enlistment bonuses are usually paid once initial training is complete (basic training and job training) upon arrival at first duty station. Some of the services pay the entire bonus in one lump sum, while other services pay a portion of the enlistment bonus upon arrival at the first duty station, and the remainder of the bonus in periodic payments.

If a recruit fails to complete their entire contracted enlistment period in the job they agreed to, in most cases, must return any “unearned” portion of the bonus.

Army

Some jobs offer only a small bonus, some jobs have a large bonus, and some jobs offer no bonus at all. It all depends on how bad the Army needs new recruits in these jobs.

The maximum enlistment bonuses are:

Four or more year enlistment: \$40,000

Three-year enlistment: \$30,000

Two-year enlistment: \$20,000

Recruits who enlist for cash bonuses totaling more than \$10,000 receive initial payment of \$10,000 upon completion of initial entry training. The remaining bonus amount will be paid in annual increments of up to \$10,000 until paid in full.

Enlistment bonuses totaling less than \$10,000 are paid in one lump sum upon successful completion of initial entry training.” The Army has more enlistment bonuses than any other service. In FY 2009 the average enlistment bonus for active duty Army (non prior recruit) was \$13,300.

Marine Corps

The Marine Corps offers monetary incentives to enlist into MOSs that the Marines consider to be “undermanned” in the initial categories. Term of service is five years. Examples:

Shipping bonus (any MOS)

Ship to Basic Training between December and May, \$3,000

Ship to Basic Training between June and November, \$2,000

Aviation Electronics, \$4,000

Marine Corps Reserve

A \$10,000 enlistment bonus is paid following completion of initial active duty training for selected MOSs. Individuals must enlist for 6 years of drilling service, followed by two years in the inactive reserve.

Unlike other services, the Marine Corps “rations” their bonuses to the various recruiting commands based on total funds. The bonus may or may not be available at the time/location of enlistment. e.g. Chicago may have some bonus authorizations; New York may have already used all of their bonus authorizations for the fiscal year

Coast Guard

The U.S. Coast Guard no longer makes their enlistment bonus amounts available to the general public on line. For information on bonuses, individuals must contact local Coast Guard recruiters.

Air Force

The Air Force usually pays enlistment bonuses in a single lump sum after completion of technical training and arrival at first duty station. Some examples based on 4 and 6 year enlistments.

Crypto Linguist: 6 years, \$14,000; 4 years None

Combat Controller: 6 years, \$17,000; 4 years, \$3,000

Explosive Ordnance Disposal: 6 years, \$15,000; 4 years, \$3,000

Navy

To qualify for an enlistment bonus, a recruit must agree to extend their normal 4 year enlistment contract by one year (total 5 year active duty enlistment). Those who enlist under a program which requires a 5 or 6 year enlistment period. e.g. nuclear or advanced technological program, do not have to extend their enlistments.

Examples:

Sailors who demonstrate proficiency in a critical language. e.g. Farsi (Iran), Hindi (India), Swahili (Central Africa) can earn a \$10,000 bonus.

Applicants who enlist in Special Operations and Special Warfare programs and achieve an “advanced score” on the applicable screening test during basic training will receive a \$2,000 bonus on graduation from basic training.

Commissioned Officers

The accession bonus for new officers in critical skills provides a monetary incentive to individuals who accept a commission or appointment as an officer and serve on active duty in a military service in a skill the Military Service has designated a critical officer skill in the active service agreement.

Sources: Enlistment and Reenlistment Bonuses.

Military.com. What are the Current Enlistment bonuses and Reenlistment Bonuses Amount. About.com. Army Enlistment Incentives. About.com. What is the Average Enlistment Bonus? Army mil/faqs.htm. Marine Corps Enlistment Bonuses. About.com. Marine Corps Enlistment Bonuses-Aviation Electronics. About.com. Marine Corps Reserve Enlistment Bonuses. About. Com. Air Force Non Prior service Enlistments. About.com. Navy Active Duty Enlistment Bonuses. About.com. Defense Research Institute. Procedures for Administration of Enlistment, Accession of New Officers. In Critical Skill Bonuses, Selective Reenlistment Bonuses. Department of Defense.

Estimated Cost and Effectiveness of Enlistment Bonuses

A recent Rand National Defense Research Institute study found that “between 2000 and 2008 the Department of Defense (DOD) budget for enlistment...increased substantially from \$266 million to \$625 million.”

As to effectiveness the NDRI study found that “enlistment bonuses were an important contributor to the Army’s success in meeting recruiting objectives between 2004-08. A conclusion was that high-quality Army enlistments would be 26,700 (20 percent) lower without the increase in enlistment bonuses over the period.”¹⁹

CONCLUSION

The first two sections of this study examined literacy and educational attainment in the United States. Their importance cannot be overstated in the context of recruiting and maintaining a technologically capable, all volunteer armed force. One difficulty in this respect is that the best and brightest high school graduates have numerous choices of career paths--- enlistment in the military being but one.

To level the playing field the Congress has not only funded post service benefits, i.e., GI Bills beginning with World War II veterans (See Appendix B) but also funded pre-enlistment incentives. All of our armed services offer pre-enlistment incentives in one way or another.

In a perfect budgetary environment, that is, a nominal federal debt and balanced federal budgets, there would be no challenge of consequence to the present incentive programs. The policy would be to keep the programs and make them as efficient as possible. Unfortunately, the perfect budgetary environment does not exist in 2011. In fact, the great majority of the American electorate recognize the present debt and deficits as a critical crisis and are looking for ways to “right the ship.” Cuts in federal spending is a consensus option. Granting that cuts will be made, there will be enormous pressure to cut defense spending. In this context it follows that all Department of Defense programs will be reviewed, including pre-military incentives and post military incentives, and judged on their importance to our national defense and national security in terms of costs and benefits.

Benefits of military incentive programs include recruiting and maintaining an increasingly high technology armed force. (See Service Recruiting and Technology) A second benefit is that returning veterans will be better disciplined and educated; an immeasurable contribution to all segments of society.(See Post War Entitlements, 1944-2011).

A draconian solution to ensure the military's share of the best and brightest would be reinstatement of the draft. In this respect, a recent statement (September 21, 2011) by the Chairman of the House Armed Service Committee noted that a significant reduction in the defense budget could make a military career so unattractive that the only alternative would be a reinstatement of the draft. Should this take place, cuts in the present military incentive programs would likely occur. However, in today's technological world there is a significant downside to the draft. First, what would be the period of service in a world of continuous terrorist threats and threats to our national security? In past wars, required service ended at the conclusion of hostilities. In 2011 most military and foreign policy experts agree that a very unstable world will require a highly (technologically based) American military that sometime will be engaged in conflict. Also, a fact worth noting with respect to terms of service, is that in hundred of military specialties the enlisted commissioned and enlisted recruit does not reach his/her full potential until many years after entering service.

A second problem would be the motivation of the draftee to excel in his assigned specialty. Asserted here is that performance would suffer when compared to the volunteer enlistee. This conclusion would seem to be borne out as many of the major powers are encouraging volunteer enlistments, rather than relying on a draft.

If a draft is not reinstated in today's budgetary environment, it is likely that some cuts will be made in military incentive programs, which raises the question of what programs? Pre-enlistment incentives? Post service (GI Bill) benefits? Reenlistment Bonuses? Reserve force incentives? The reader should review the hypothetical options listed below through the eyes of a possible recruit, i.e., which option would he or she choose? From a military point of view, the most popular option would be the one(s) to retain.

* Pre-enlistment, active duty, non prior recruit bonus. Likely factors considered include non military employment options, including insurance, retirement and health benefits; size of enlistment bonus in terms of required length of service; initial pay; training and education opportunities while in service and post service employment opportunities; risk of conflict.

*Post service, active duty, non-prior recruit, GI bill type benefits. Factors considered include provisions of GI bill. e.g. education opportunities; initial pay; non military employment options; availability of training in chosen career field; risk of conflict.

*Reenlistment Bonus. This bonus is a major factor in retaining an increasingly technical military armed force. Its general purpose is to retain personnel in jobs where shortages exist. The bonus must be weighted against civilian sector options after discharge. "The amount of a reenlistment bonus is calculated by multipliers assigned to specific jobs in reenlistment zones. For example, Zone A are for those reenlisting with less than 6 years of service. If a job has a reenlistment bonus multiplier of 3 for Zone A, that means those reenlisting multiply their base pay by 3, then multiply

that by the number of years reenlisting. That would be the enlistment bonus.²⁰

Usually 50 percent of the bonus is paid at reenlistment with the remainder paid in annual installments. If the enlistment contract is not fulfilled, repayment on the “unearned bonus” is required. Enlistment and reenlistment bonuses are taxable income. If one enlists in a combat zone, the entire bonus is tax exempt.²¹

Between 2000 and 2008 reenlistment bonuses increased from \$891 million to \$1.4 billion for selective enlistment bonuses. This compared to an increase of \$266 million to \$625 million for enlistment bonuses over the same period.²² The average bonus for a non-prior service recruit in FY 2009 was \$19,500.

Assuming the present bonus system will be reviewed and cuts made, options to consider include:

(1) Retain the after service GI bill type bonus. It is still the best long term incentive for those men and women between the ages of 18-24, in particular those who are college qualified and who would attend college if financially able. It is also the best investment for the nation as a whole. In this respect, the World War II GI bill created a skilled, disciplined, and competitive work force, one that had much to do in making the United States the preeminent economic and military power in the world.

(2) Retain the reenlistment bonus program. Its advantage is that it can be adjusted to military requirements over time.

(3) Review on an annual basis the numbers and cost of our reserve forces, including the National Guard. Like specialty

jobs in the active duty forces, the numbers and skills needed will change over time. The present recommendation is 846,200 men and women for the four services plus the Army National Guard, the Air National Guard, and Coast Guard Reserve.

(4) The initial pay grade for all services should be reviewed in the context of eliminating pre service incentives.

And if the draft is reinstated, there should be no exceptions for otherwise qualified recruits. Today's world, while extremely uncertain given the threat of terrorism and many potential enemies, does not require a 10 million man armed force as was the case in World War II. Our present deficit/debt crisis is just as threatening to our national security. In one sense, paying pre service incentives is coming dangerously close to creating a mercenary military force.

APPENDIX A

ARMED FORCES VOCATIONAL APPITUDE BATTERY (ASVAB) SCORE AND EDUCATION LEVEL REQUIREMENTS FOR ENLISTMENT IN MILITARY SERVICES

Army	Minimum of 31 (out of a possible 100) on ASVAB. Accepts GED* with some college credits. In 2008 83 percent of new recruits had high school diplomas (DOD average 92 percent). Army has a special program (Army Prep School) for those without CED or high school diploma.
Navy	High school diploma and 35 points of ASVAB; a GED and minimum of 50 on ASVAB plus three references from influential members of community.
Marine Corps	High school diploma and 32 points on ASVAB. With GED a score of 50 on ASVAB.
Air Force	High school diploma and 36 points on ASVAB. Seventy percent of those accepted score of 50 or above. ¹¹

Department of Defense overall age requirement for enlistment is 17 with parental permission; 18 without parental consent. Maximum age is 42. The different services have the option to set age requirements. Other enlistment standards are citizenship/lawful permanent resident, criminal history, family status (single, married, number of dependents), credit history, drug/alcohol addiction, and physical fitness.

In 2008 the Department of Defense initiated a one-year trial program to recruit 1,000 legally present, non-citizens to meet critical needs in health and language skills.

Source: Rod Powers: U.S. Military Minimum Required ASVAB Scores and Educational Level.

APPENDIX B

GI BILLS, 1944-2011

Servicemen's Readjustment Act of 1944. (GI Bill World War II). Benefits included college and vocational entitlements (tuition, books, etc., home and business loans and \$20/week while seeking employment.

Veteran's Adjustment Act of 1952 (Korean War GI Bill). Benefits included unemployment compensation-26 years at \$26.00/week, tuition for college and vocational training and various loan guarantees.

Veteran's Readjustment Benefits Act of 1966 and the Readjustment Assistance Act of 1972. Education benefits began at \$110/month and increased to \$311/month in 1977. Major difference from World War II and Korea was that benefits were extended to veterans that served in war and peace.

1976-87. Veteran's Educational Assistance Program (VEAP) Veterans Administration matched veteran's contribution on basis of 2-1. Benefits could be claimed for up to 36 months.

1984-2008. Montgomery GI Bill (MGIB). Active duty members of armed forces may contribute \$100 per month for 12 months and received \$1,321 if a full time student. Active duty members may contribute an additional maximum of \$600 while on active duty and receive \$4,800. Funds could be used for college, vocational training, apprenticeship and flight training. The MGIB bill also provided extensive vocational rehabilitation for those with service-connected disabilities. All bills required "other than dishonorable discharge.

Veteran's Educational Assistance Act of 2008. Those serving since September 11, 2001 are eligible for benefits including the full cost of any public college in their state, a housing allowance, and a \$1,000 stipend for books, et al.

Post 9/11 Veteran's Educational Improvements Act of 2010 expands eligibility for members of the National Guard who served full time in active Guard or active Guard Reserve. Legislation also provided educational benefits for dependents of veterans who were totally disabled or died while on active duty or died as a result of a service related condition.

Source: GI Bill, Wikipedia, the free encyclopedia.

NOTES

¹Enlisted contracts are from 2-6 years with an average of 4 years. Enlisted and commissioned personnel can retire after 30 years of service.

²Civil Rights Act of 1964. Public Law 88-352, Stat, 241 (July 2, 1964).

³Wikipedia, the free encyclopedia. Alvin C York. Bob Green, "Last combat hero is long forgotten." Chicago Tribune May 22, 1989.

⁴Wikipedia, the free encyclopedia. Literacy in the United States.

⁵Chapman, C Laird, J. and Kewal Ramani, A (2010) Trends in High School Dropout and Completion Rates in the United States, 1972-2008. National Center for Educational Statistics, Institute of Education Sciences, U.S. Department of Education, Washington, DC.

⁶Wikipedia, the free encyclopedia. Literacy in the United States.

⁷Source for all asterisks noted above is "Trends in High School Dropout and Completion Rates. See note #5

⁸General Educational Development (GED) tests are standardized tests designed to measure the skills and knowledge that students normally acquire by the end of high school. The tests are developed by the American Council of Education Testing Service. Individuals who pass The GED receive a high school equivalency credential.

⁹Hechinger, John. U.S. Teens Lag as China Scores Soar on International Test, December 7, 2010.

¹⁰Library of Congress. Central Intelligence Agency.

¹¹Congressional Research Service. FY 2012 National Defense Authorization Act: Selected Military Personnel Policy Issues, page 3-5.

¹²Women in the Military Service For American Memorial Service Foundation. Statistics on Women in the Military. Should there be any doubt about women's leadership in the military, it is worth noting that Rear Admiral Nora Tyson is commander of a U.S. carrier strike group. The Army, Air Force and Marine Corps can cite similar examples.

¹³Mary Baldwin College. Guide to the Virginia Women's Institute for Leadership.

¹⁴In the United States oversight of military expenditures is a responsibility of the Inspector Generals of the different services and the relevant oversight committees in Congress.

¹⁵Wikipedia, the free encyclopedia. GI Bill.

¹⁶Military.com, 22 June 2006. "GI Bill Turns 62 Today."

¹⁷Educational Enlistment Standards: Recruiting Equity for GED certificates (April 1996) Report to Congress. Office of Assistant Secretary of Defense, Force Management Policy.

Educational Enlistment Standards and Attrition in Military Service. See #17 above.

¹⁸Defense Advanced Research Projects Agency (DARPA) is a part of the Defense Department. It is responsible for developing new technology for the military. DARPA's original mission...was to prevent technological surprises like the launch of Sputnik...Today, DARPA's mission is still to prevent technological surprises to the United States, but also to create technical surprises to its enemies.

¹⁹Rand National Defense Research Institute. Analysis of Enlistment and Reenlistment Bonuses. Analysis requested by Department of Defense.

²⁰About.com. What are the current enlistment and reenlistment bonus amounts?

²¹Ibid.

²²Rand analysis. See note #19.

