Shut Out of the Military:

Today's High School Education Doesn't Mean You're Ready for Today's Army



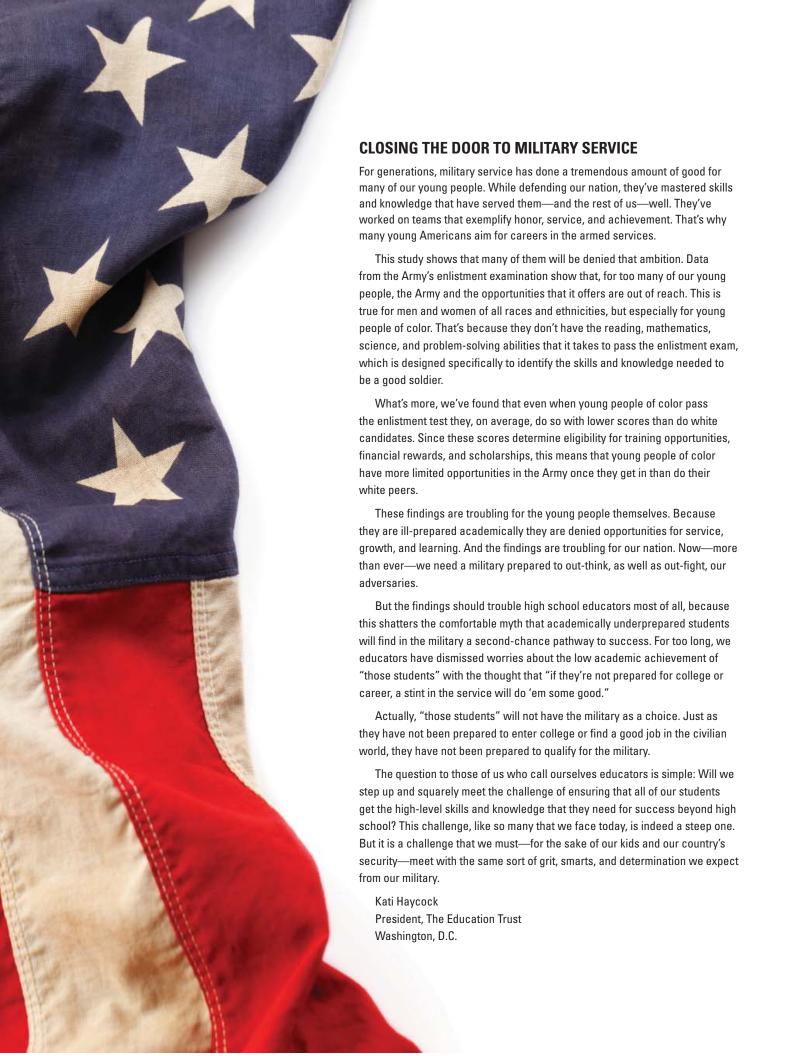


TO THE POINT

- Among young high school graduates, about one in five do not meet the minimum standard necessary to enlist in the U.S. Army.
- ▶ On average, young people of color are far more likely not to pass the qualifying exam than other applicants.
- ► Candidates of color who pass often have lower scores than their white peers, excluding them from high-level training and advancement opportunities.
- Wide disparities in eligibility by race/ethnicity between and within states provide a report card on how state educational systems do—and don't—prepare different groups of students
- ▶ Because the test assesses many occupational skills, low scores mean these applicants are also unlikely to succeed in the civilian workforce.

Military careers have provided generations of Americans with pathways to successful adulthood as well as honor, discipline, and achievement. Unfortunately, today too many high school graduates who seek the opportunity to serve don't make the cut. Just as secondary schools are failing to prepare many students for college and civilian careers, so too are they failing to prepare young men and women—particularly young people of color—for military service.

For these young Americans, a high school diploma does not qualify them to "be all that you can be."



Shut Out of the Military:

Today's High School Education Doesn't Mean You're Ready for Today's Army

BY CHRISTINA THEOKAS

or generations of Americans, a military career has been much more than just a job. It's provided the chance to join a tradition of discipline, honor, service to country, and achievement. Also, for millions including many low-income and minority youth, the armed forces have been a gateway to the middle class. While giving back, recruits have developed skills and abilities that prepared them for solid careers both in military and in civilian life.

Unfortunately, many of the young people today who pin their hopes on starting a career with the armed forces after high school will never get that chance. Just as secondary schools are failing to prepare many students for college and careers in the civilian workforce, so too are they failing to prepare young men and women for military service. Perhaps most disturbingly, many young people of color are not prepared by their high schools to make the cut.

The United States Army's Armed Services Vocational Aptitude Battery (ASVAB) is the test that determines if applicants qualify for enlistment, and, if they do, what occupations—and what levels of those occupations—they are prepared for.

An analysis of ASVAB results looked closely at the rates at which different groups of young Army applicants from 2004 to 2009 achieved a qualifying score for enlistment. The data paint a troubling picture of our K-12 public school systems' inability to prepare some students academically for opportunities in the military and beyond:

- Among young people who are recent high school graduates, more than one in five do not meet the minimum standard necessary to enlist in the U.S. Army.
- On average, young people of color taking the ASVAB are far less likely to qualify for enlistment than are other young people. For example, more than twice as many African Americans do not qualify compared to

- white applicants. And even when candidates of color pass, they often do so with lower scores than those of their white peers.
- Among those recruits of color who are accepted for service, these lower scores exclude them from the assignments that provide the kinds of high-level training and education skill development, and advancement opportunities, necessary to compete in the active duty and civilian workforces.
- Qualifying rates by race/ethnicity at the state level reveal wide disparities between and within states and provide a supplemental report card on how state educational systems are—and are not—preparing different groups of students who share an interest in enlisting in the military after graduation.
- Also, because ASVAB scores paint a remarkably accurate picture of levels of readiness for a wide range of occupations in civilian life as well as in the armed forces, poor performance strongly suggests that these young men and women also are not prepared to succeed in the civilian workforce.

OVERVIEW OF THE ASVAB

The armed services do not offer open admissions to anyone who wants to join. In 2009 congressional testimony, a Pentagon official testified that 75 percent of young Americans had problems preventing them from even applying to the military.² Recruits must demonstrate specific physical abilities, lack criminal records, and most must be high school graduates. In addition, recruits must meet specific expectations for academic proficiencies as measured by the ASVAB.

The ASVAB, a flexible, comprehensive assessment tool administered by the Department of Defense, is the most

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widely used multiple-aptitude test battery in the world. The instrument includes nine individual timed subtests, which take about three hours to complete: Word Knowledge, Paragraph Comprehension, Arithmetic Reasoning, Mathematics Knowledge, General Science, Mechanical Comprehension, Electronics Information, Auto and Shop Information, and Assembling Objects.³

By combining the results of these nine different ASVAB sections, the armed forces can assess whether candidates possess the aptitudes, specific skills, and knowledge needed to enlist and to qualify for a vast range of occupational specialties. Thanks to the complex architecture of the ASVAB, the military can identify with a high degree of certainty potential staff accountants and radiology technicians, as well as applicants who can repair airplane engines, manage warehouses, and operate telecommunications systems.

The ASVAB is also used as a tool to determine who receives an enlistment bonus and who has the potential to be trained for higher level responsibilities. Today's military offers recruits new opportunities and new challenges as it prepares to defend America from threats both known and beyond our imagination. Current training develops abilities and knowledge to not just out-muscle, but out-think and out-perform any enemy.⁴ The United States Army is one of the world's top classrooms, instructing in the latest technologies and their real-world applications to ensure that our soldiers are the most capable, most prepared, most technologically advanced fighting force on the planet.

HOW APPLICANTS QUALIFY TO ENLIST

The Department of Defense wants to enlist individuals who are going to succeed—so, to accurately assess recruit qualifications and readiness to serve, they created a system to measure general cognitive ability by grouping the subtests of the ASVAB: the Armed Forces Qualification Test (AFQT).

The AFQT combines scores from four of the academic subtests of the ASVAB to measure this general aptitude (Math Knowledge, Arithmetic Reasoning, Word Knowledge, and Paragraph Comprehension). Each branch of the military has a minimum AFQT score for entry (see Table 1).

By enlisting individuals who score at or above the minimum, the military ensures that a large number of its trainees will successfully complete training.

Table 1: Enlistment Eligibility 2010

The minimum AFQT score required to qualify for entry into the military varies by branch.

Service Branch	Minimum Required AFQT Score		
Army	31		
Navy	35		
Marines	32		
Air Force	40		
Coast Guard	45		

Source: http://www.military.com/Recruiting/Content/0,13898,rec_step02_eligibility,,00.html

BEYOND ENLISTMENT, QUALIFYING FOR INCENTIVE PROGRAMS

AFQT scores are grouped in categories, ranging from Category I—with a percentile score range of 93-99—to Category V—with a percentile score range of 1–9 (see Table 2).

For the Army, those who score at the AFQT level of 31 and higher—Category IIIB and above—qualify for enlistment. Those scoring at 50 and higher on the AFQT, falling into Categories IIIA and above, are eligible for Army incentive programs including enlistment bonuses, college repayment programs, and the Army College Fund (a monetary incentive that increases the value of G.I. Bill benefits). Moreover, the Army is required to take 60 percent of recruits from those scoring in Category IIIA and higher.

By contrast, recruits scoring as low as AFQT Category V are denied acceptance across the armed services. In times of great need, the Army can reach into the pool of Category IV, but only if authorized by Congress, and then operating within statutorily limited numbers of recruits, who must all have a high school diploma.

Table 2: AFQT Categories for Enlistment

AFQT scores are grouped into categories for reporting, enlistment limits, and enlistment incentives (red line marks cut-off for enlistment in the Army).

AFQT Category	Percentile Score Range			
1	93-99			
II	65-92			
IIIA	50-64			
IIIB	31-49			
IV	10-30			
V	1-9			

Source: http://www.official-asvab.com/eligibility_app.htm

HOW APPLICANTS QUALIFY FOR SPECIFIC FIELDS—AND ADVANCEMENT OPPORTUNITIES

The ASVAB measures more than general abilities. By weighting and totaling scores on a recruit's various ASVAB subtests, the Army also is able to determine potential to perform in specific fields. For each applicant, the Army calculates nine composite scores—the areas are as diverse as Clerical, Surveillance and Communications, and Combat—determining the applicant's future career field and specialization.

From the armed services' point of view, the aim is to find exactly the people the military needs, to designate Military Occupational Specialties (MOS) for as many recruits as possible.

From the applicants' point of view, the aim is to qualify for positions of interest that come with training for occupational skills in specific fields that can benefit them when and if they return to civilian life. If they aspire to a career in the Military Police Corps, for example, they know they need to score high on the AFQT—and that they need to score high in the subtests most relevant to that field.

Recruits that rank at the highest AFQT levels are eligible for special opportunities. While most military jobs are tied to the kind of composite scores described above, certain elite categories are available only to those who also possess an especially high AFQT. For instance, jobs in technical fields require significantly higher AFQT scores than the minimum score needed for regular enlistment. These highlevel jobs, because they come with education, training, and skills development, open doors to high-level career paths, provide better active-duty experience and pay, and set up enlisted personnel for greater success following life in the service.

WHO MAKES THE CUT?

Our sample consists of the nearly 350,000 high school graduates aged 17-20 who applied for entry into the Army between 2004 and 2009 and took the ASVAB at a Military Entrance Processing Station.⁵ These young people are among the 25 percent of young Americans who do not have problems preventing them from applying for enlistment in the military. Approximately 50 percent of these applicants, a total of 172,776, joined the Army.

The group is not representative of individuals across or within states and the nation, but is a self-selected sample of individuals aged 17-20, with a high school diploma, and an interest in joining the Army. We chose only to

About 23 percent of the test-takers in our sample failed to achieve a qualifying score on the AFQT.

examine the results of recent high school graduates to have a sample of individuals who had experienced similar high school requirements and standards. No information about socioeconomic status is collected from potential recruits. The results of this analysis show the performance for different subgroups of individuals, similar to data from other assessments given to high school students including the Scholastic Aptitude Test (SAT) or the ACT, another commonly administered test. In the sample, 58 percent of the test-takers were white, 19 percent African-American, 12 percent Hispanic, 8 percent unknown, 1 percent each of Asian, American Indian/Alaskan Native, and Native Hawaiian/ Pacific Islander, while 76 percent were male and 24 percent female.

About 23 percent of the test-takers in our sample failed to achieve a 31—the qualifying score—on the AFQT.

Among white test-takers, 16 percent scored below the minimum score required by the Army. For Hispanic candidates, the rate of ineligibility was 29 percent. And for African-American youth, it was 39 percent. These dismally high ineligible rates for minority youth in our subsample of data are similar to the ineligible rates of all minority Army applicants as recorded over the last ten years.⁶

Overall, applicants of color scored lower on the AFQT than their white peers (see Figure 1).

70
60
55
50
44
40
38
40
30
African-American
White Hispanic

Figure 1: Mean AFQT Score by Race/Ethnicity for Applicants

Source: Education Trust analysis of U.S. Army ASVAB data.

INELIGIBILITY RATES BY STATE

As is often seen in other assessments,⁷ these ASVAB results also show tremendous disparities across states in educational outcomes (see Figure 2). The lowest performers, those states with the highest rates of ineligibility on the AFQT, include Hawaii, Louisiana, Mississippi, and Washington, D.C. Roughly speaking, states with greater numbers of minority applicants have higher overall rates of ineligibility, but striking differences exist between the performance of different groups of test-takers within a state (see Appendix A for a table of results by state, disaggregated by race/ethnicity). Ineligibility rates also vary by state for white test-takers from a low of about 10 percent in Indiana to a high of 27 percent in Maryland.

State by state, we can see the numbers of young people who do not qualify, and we can see how that breaks down by race. For example, in Indiana, where over 13 percent of their 6,965 applicants did not score high enough to be eligible for enlistment, the ineligibility rate for African Americans was close to 29 percent, the ineligibility rate for Hispanics was just over 16 percent, and the ineligibility rate for white applicants was just over 10 percent. In neighboring Illinois, ineligibility rates were higher across the board: for African Americans, with a 41.5 percent ineligibility rate; for Hispanics, with a 29 percent ineligibility rate; and for whites, with a 16.3 percent ineligibility rate.

Another way to look at the state data is to examine which states far exceed the overall ineligibility rate for a subgroup. For example, five states exceed the overall ineligibility rate for African-American youth by more than five percentage points: Alabama, Arkansas, Louisiana, Mississippi, and Wisconsin. Both Alabama and Mississippi had more than 3,000 test-takers and had ineligibility

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rates for African Americans of 44 percent and 50 percent, respectively. Six states exceeded the overall ineligibility rate for Hispanic students by more than 5 percentage points: Connecticut, Hawaii, Massachusetts, New Jersey, Pennsylvania, and Rhode Island. Massachusetts has the highest overall ineligibility rate for Hispanic test-takers of nearly 41 percent, for 635 test-takers. Ineligibility rates also vary by state for white test-takers from a low of about 15 percent in Alaska to a high of 27 percent in Maryland.

In considering the data as a report card on states' ability to prepare all students for post-secondary achievement, as a supplement to the National Assessment of Educational Progress (NAEP), it is important not to make assumptions about these test-takers. Applicants are self-selected, and so are not, as with the NAEP, a representative sample. Also, no information is provided about socioeconomic status, so we are looking at the simple relationship between ineligibility

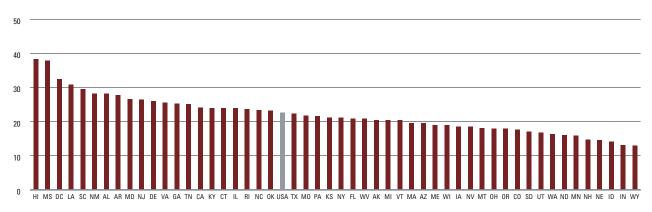


Figure 2: AFQT Ineligibility Rates by State*

^{*}The number of applicants across states varies and may not be representative of recent high school graduates. Source: Education Trust analysis of U.S. Army ASVAB data

WHO RISES TO THE TOP, BECOMING ELIGIBLE FOR INCENTIVES, ADVANCEMENT, AND SPECIFIC OCCUPATIONAL SPECIALTIES?

Just passing the ASVAB is not enough to ensure that recruits have access to the full range of training and other important opportunities that the Army offers. Eligibility for high-level training and high-level assignments depends on strong scores in various subtests of the ASVAB. Higher scores open more doors and provide more lucrative opportunities.

For those who chose to enlist, over 43 percent of white recruits scored into Category I and Category II, the top two categories of military enlistment—the categories that provide the greatest choice. Meanwhile, less than 25 percent of Hispanic enlistees scored in this range, and less than 18 percent of African-American service members were similarly qualified.

Incentives for those scoring at Categories IIIA and above were available for 68 percent of white recruits, while only 49 percent of Hispanic and just 40 percent of African-American recruits reached those categories (see Figure 3).

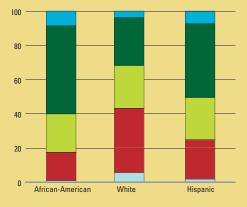
To qualify for specific occupational specialties, recruits must earn certain scores in nine different Army aptitude areas. For example, to qualify for any of the Special Forces positions, a recruit must earn a score of 110 on the General Technical composite score, which is a weighted average of Arithmetic and Verbal Expression. Approximately 66 percent of applicants did not meet this minimum score. However, nearly 86 percent of

African-American applicants and 79 percent of Hispanic potential recruits did not meet the minimum for these specialties, as compared to 60 percent of white potential recruits.

Similar gaps exist between African-American and white enlistees on other Army Aptitude Composite Areas. For example, more than twice as many white candidates as African-American applicants met the minimum levels of qualification in Skilled Technical and Surveillance and Communications. The gaps between Hispanic and white enlistees, though not as stark, remain wide, with 49 percent of Hispanic candidates, as opposed to 75 percent of white candidates, qualifying for Skilled Technical positions. In addition, 48 percent of Hispanic enlistees and 76 percent of white enlistees met the Surveillance and Communications minimum, which opens up unique career opportunities including Tactical Unmanned Aerial Vehicle Operator and Field Artillery Firefinder Radar Operator.

The widespread lack of readiness among these hopeful enlistees to meet the criteria for such positions reduces their options within the military and, by cutting them off from the relevant training, limits the skills they will bring to civilian careers if and when they leave the military.

Figure 3: AFQT Categories by Race/Ethnicity for Joiners



	African- American	White	Hispanic
■ IV	8.5%	3.7%	7.3%
■ IIIB	51.6%	28.2%	43.3%
■ IIIA	22.4%	24.8%	24.7%
■ II	16.6%	37.8%	23.0%
= 1	0.9%	5.5%	1.7%

This figure shows lowest scores at the top and highest at the bottom—to clearly show the percentage of recruits scoring in Categories I, II, and IIIA. Source: Education Trust analysis of U.S. Army ASVAB data.

rates and race/ethnicity. While some applicants are likely hoping for a second chance, others may be prepared for college and are college-bound, looking to the military as a place to gain skills, experience, and scholarship support through the G.I. Bill. However, the applicants share a common interest in military service and the data suggest they are differentially prepared.

BE ALL THAT YOU CAN BE?

In every state in America, the military turns away remarkably high percentages of applicants who, despite their high school diplomas, lack the reading, math, science, and problem-solving skills needed to serve in the armed forces.

In addition, because the ASVAB specifically assesses readiness in a wide range of vocational pathways, it's

equally likely that the men and women who don't pass the test are unprepared for the civilian workforce.

The military recommends that examinees take a solid core of courses in mathematics, English, and science to do well on the exam. But, clearly, the K-12 system has not responded with a sufficiently rigorous course of study, depriving many applicants of the knowledge and skills they need to serve.

The loss is theirs—and ours.

Our high schools are undermining the preparedness of too many of the young people who seek to serve their nation, leaving our country—and our youth—in harm's way.

NOTES

- 1 "The Condition of College and Career Readiness 2010,"ACT, 2010. http://www.act.org/research/policymakers/cccr10/page_8.html
- 2 Dr. Curtis Gilroy, Director for Accessions Policy, Office of the Undersecretary of Defense for Personnel and Readiness, testimony before the House Armed Services Subcommittee "Recruiting, retention, and end strength overview," March 3, 2009, retrieved on May 27, 2009 from http://armedservices.house.gov/pdfs/MP030309/Gilroy_Testimony030309.pdf as cited in "Ready, Willing and Unable to Serve," Mission: Readiness Military Leaders for Kids, 2009. http://www.missionreadiness.org/PAEE0609.pdf
- 3 For more information, visit http://www.official-asvab.com
- 4 See "The Army Capstone Concept: Operational Adaptability: Operating Under Conditions of Uncertainty and Complexity in an Era of Persistent Conflict, 2016-2028," U.S. Army, December 21, 2009 at http://www.tradoc.army.mil/tpubs/pams/tp525-3-0.pdf.
- 5 In 2010, the U.S. Army provided The Education Trust with the results of all those individuals who took the test with the intent of enlisting in a component of the Army. The study sample in this brief are 348,203 individuals, aged 17-20, with a high school diploma who took the ASVAB between 2004 and 2009. It is a subset of the 1,413,224 individuals, including those with a wider age range and varying educational levels, who took the ASVAB for enlistment in the Army during that period and of the 683,790 of those individuals, again with a wider age range, whose highest educational credential was a high school diploma. Of those surveyed, 34 percent were 19 years of age at the time, 29 percent were 18, 26 percent were 20, and 11 percent were 17 years old.
- 6 See "Population Representation in the Military Services," Office of the Under Secretary of Defense, Personnel and Readiness, Fiscal Year 2009. http://prhome.defense.gov/mpp/ACCESSION%20POLICY/ PopRep2009/index.html.
- 7 See, for example, "The Nation's Report Card Archive," National Assessment of Educational Progress (NAEP), National Center of Education Statistics, U.S. Department of Education. http://nationsreportcard.gov/report_archive.asp.

Appendix A: ASVAB Ineligibility Rates Across States, Disaggregated by Race/Ethnicity

Ct-t	Number of	%	Number of African-American	African- American	Number of Hispanic	Hispanic %	Number of White	White %
State	Applicants	Ineligible	Applicants	% Ineligible	Applicants	Ineligible	Applicants	Ineligible
AK	1,198	20.5	112	28.6	56	16.1	636	10.5
AL	8,193	28.2	3,067	44.3	99	21.2	3,825	20.4
AR	5,573	27.7	1,304	47.2	147	20.4	3,436	21.2
AZ	7,526	19.6	302	25.5	1,774	29.0	4,039	12.1
CA	31,669	24.1	2,893	36.6	10,213	30.8	13,471	15.7
CO	4,857	17.6	375	33.1	754	28.4	3,400	12.9
CT	2,911	24.0	397	41.8	523 *	39.2 *	1,785	15.2
DC	345	32.5	204	37.7			104	23.1
DE	900	26.0	303	42.2	50	32.0	446	17.3
FL	19,734	20.9	4,711	33.7	3,775	26.6	10,022	13.0
GA	13,597	25.2	6,495	34.4	377	20.4	5,452	16.8
HI	2,307	38.3	*	*	134	34.3	149	20.1
IA	3,967	18.6	160	33.1	108	30.6	3,446	17.3
ID	2,121	14.1	*	*	136	28.7	1,788	12.7
IL	11,861	24.0	2,672	41.5	1,168	29.0	7,146	16.3
IN	6,965	13.1	644	28.9	192	16.1	5,252	10.1
KS	4,099	21.1	419	41.1	207	20.8	2,931	19.0
KY	5,907	24.0	648	36.6	101	25.7	4,931	22.2
LA	6,079	30.9	2,371	47.0	89	23.6	2,791	21.8
MA	5,301	19.6	213	35.2	635	40.5	2,831	15.2
MD	5,966	26.6	1,465	36.4	235	30.6	2,710	27.0
ME	1,656	19.0	*	*	*	*	1,539	18.4
MI	11,346	20.5	1,644	42.7	303	24.4	8,695	16.3
MN	4,998	15.9	255	40.0	155	20.0	4,007	14.1
M0	8,063	21.8	976	35.6	142	21.8	5,807	18.7
MS	5,138	37.8	3,011	50.1	*	*	1,909	20.0
MT	1,309	18.1	*	*	28	14.3	1,034	13.4
NC	13,473	23.4	4,824	35.7	488	20.5	6,450	15.3
ND	795	16.0	*	*	*	*	649	12.3
NE	2,711	14.6	175	33.7	136	30.1	2,176	11.2
NH	1,300	14.7	*	*	*	*	931	15.1
NJ	6,455	26.5	1,307	33.7	1,479	34.1	2,749	20.6
NM	2,652	28.2	91	37.4	984	32.4	1,056	17.5
NV	2,503	18.6	255	36.1	415	26.7	1,523	12.9
NY	12,736	21.1	2,183	29.4	2,154	31.2	7,035	15.4
OH	14,830	18.0	1,931	35.1	279	23.3	11,744	15.4
0K	5,667	23.2	770	39.5	290	23.4	3,830	19.3
OR	3,674	18.0	73	16.4	239	29.7	2,752	15.2
PA	13,146	21.6	1,729	40.2	763	38.1	9,910	17.6
RI	1,090	23.6	57	36.8	131	39.7	667	21.3
SC	8,557	29.5	3,793	42.3	119	27.7	3,573	21.0
SD	993	17.1	*	*	*	*	809	12.7
TN	8,671	25.1	2,080	41.9	162	28.4	5,809	18.9
TX	34,093	22.4	5,523	32.9	10,094	27.8	15,432	15.9
UT	2,354	16.7	*	*	166	31.3	1,769	14.0
VA	11,086	25.5	4,207	38.6	479	21.7	5,452	17.0
VT	886	20.4	*	*	*	*	806	19.9
WA	5,571	16.4	303	32.7	434	25.3	3,488	12.3
WI	8,060	18.9	793	46.9	331	26.9	6,443	14.6
WV	2,760	20.9	121	39.7	*	*	2402	20.0
WY	554	13.0	*	*	*	*	464	11.2
USA	348,203	22.6	64,084	38.7	40,771	29.1	201,501	16.4

 $^{{}^*\,\}text{Number suppressed. State had fewer than 50 applicants. Source: Education Trust analysis of U.S. Army ASVAB data.}$

ABOUT THE EDUCATION TRUST

The Education Trust promotes high academic achievement for all students at all levels—pre-kindergarten through college. We work alongside parents, educators, and community and business leaders across the country in transforming schools and colleges into institutions that serve all students well. Lessons learned in these efforts, together with unflinching data analyses, shape our state and national policy agendas. Our goal is to close the gaps in opportunity and achievement that consign far too many young people—especially those who are black, Latino, American Indian, or from low-income families—to lives on the margins of the American mainstream.

