



Army Body Composition Updates



DACOWITS RFI # 6 **Physical Fitness Standards**

HQDA, Deputy Chief of Staff, Army Resilience Directorate
27 June 2023



Army Body Composition Program

Implementation

(multi-faceted approach)

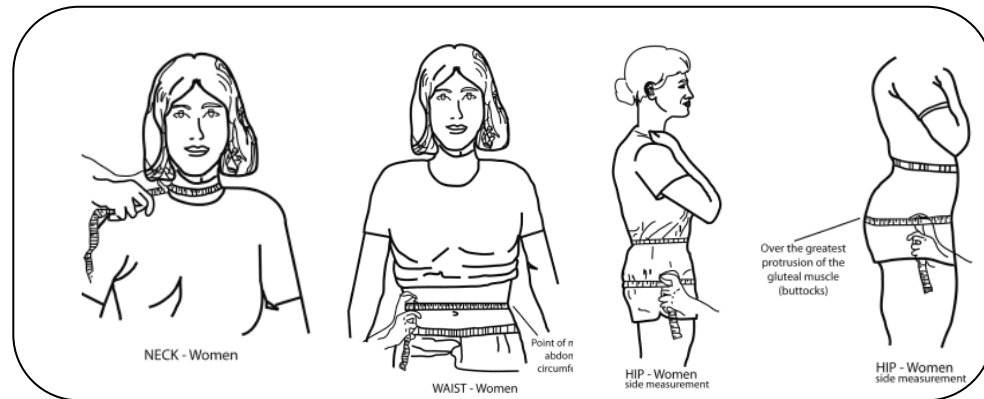
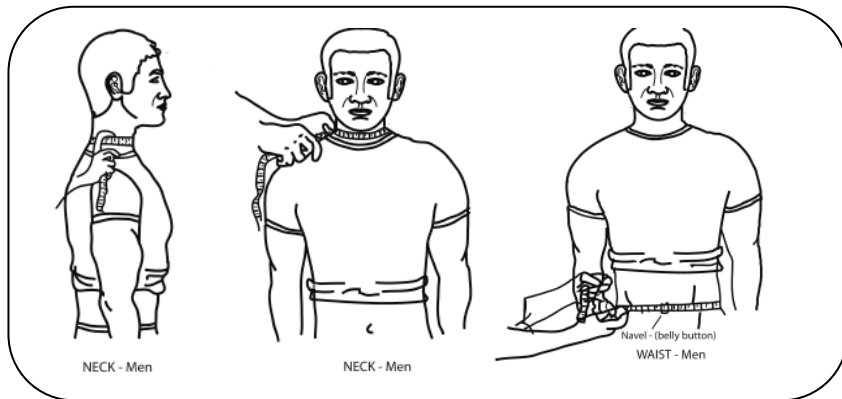
- 1. Body Composition Assessment (BCA):** Soldiers undergo regular assessments to determine their body fat percentage, which is measured using specific techniques in a tiered approach. Soldiers are first screened using a weight for height calculation. Those Soldiers that do not meet the first screen receive a follow-on screening using a circumference-based measurement.
- 2. Standards and Compliance:** The Army has established specific body fat percentage standards for each gender and age group, ensuring consistency in evaluation. Soldiers who do not meet the standards are flagged, and provided with guidance, counseling, and access to resources to help them achieve and maintain compliance.
- 3. Nutrition and Physical Fitness Education:** The ABCP places significant emphasis on educating soldiers about proper nutrition, healthy lifestyle choices, and effective physical fitness training. Educational programs and resources are made available to support Soldiers in adopting sustainable habits and meeting the standards.
- 4. Soldier Support:** The Army provides support systems, including professional dietitians, physical fitness trainers, and behavioral health experts, to assist soldiers in meeting their body composition goals. These resources help Soldiers develop personalized plans for nutrition, exercise, and behavior modification.



Army Body Fat Assessment Methods

Current Body Measurements (Phasing out in May 2024)

- Screen #1: All Soldiers are weighed. A weight for height table is referenced determine if passing or if Soldier will receive screen #2.
- Screen #2: Soldiers receive a taped circumferential method; three sites for men and four sites for women.
- Body Composition dispensation for exceptional fitness

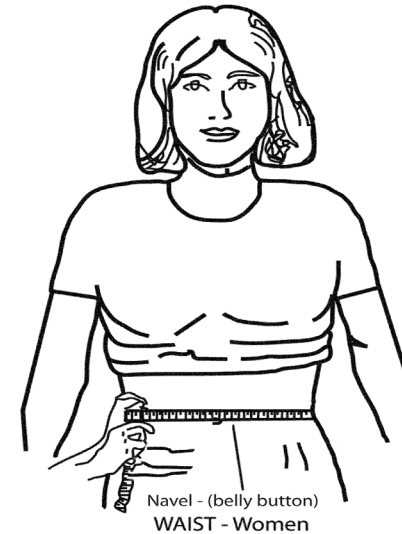




Army Body Fat Assessment Methods

Newly Approved Body Measurements

- Screen #1: All Soldiers are weighed. A weight for height table is referenced to make a determination for passing or if Soldier will receive screen #2.
- Screen #2: Soldiers receive a taped circumferential method; one site across sexes.





Army Body Fat Assessment Methods

Supplemental Body Fat Assessment

- Screen #3- Soldier requests a supplemental body fat assessment and Commander approves if “reasonably available” via the DEXA machine, InBody 770, or the Bod Pod.





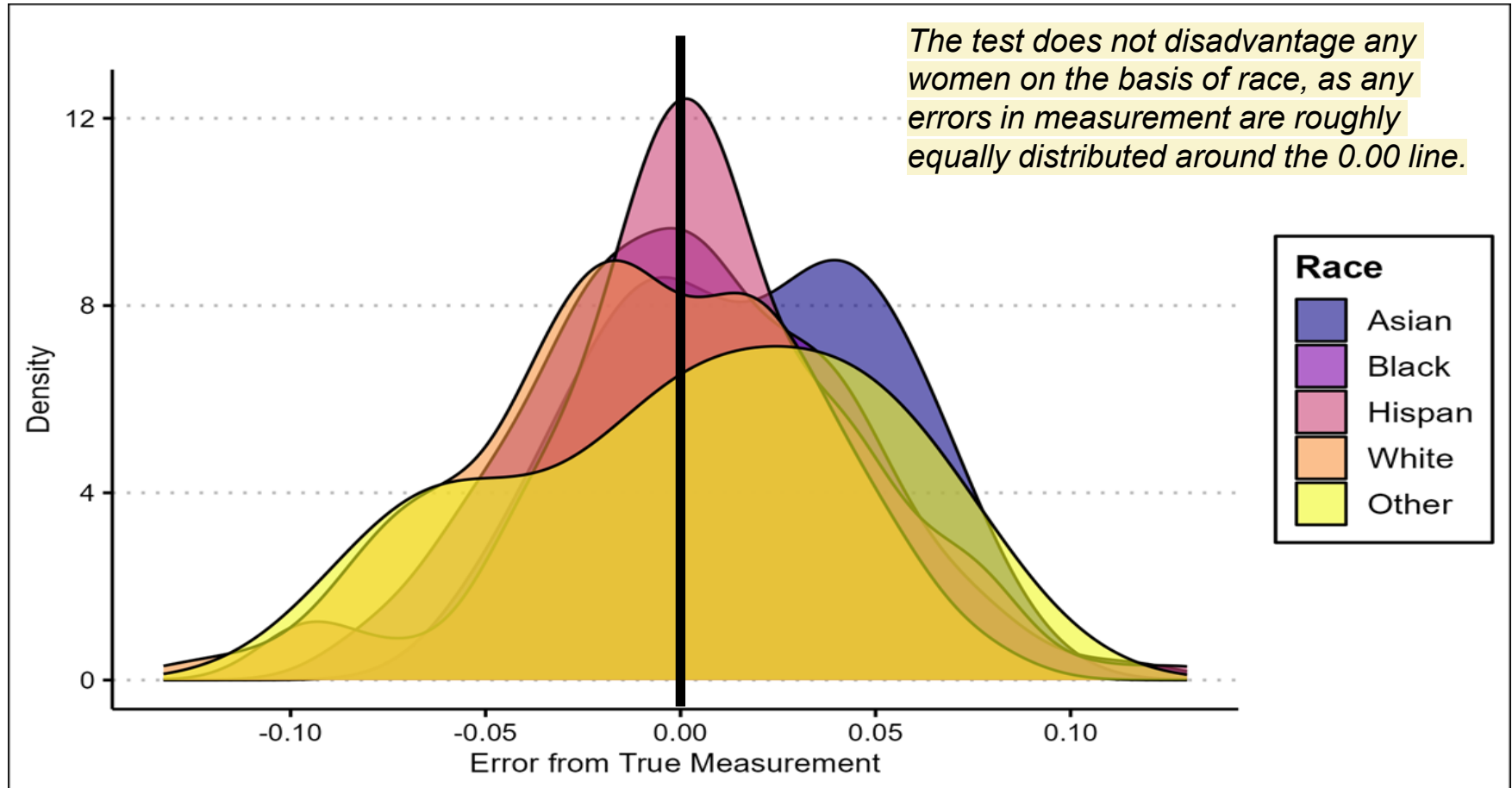
Research: Current Force, Current + New Tape

Measurement	Pass AR 600-9 (HT/WT or Tape)	Fail AR 600-9	Inaccurately Passed	Inaccurately Failed	
Current Tape Equation	72%	28%	34%	1%	
Male	74%	26%	35%	1%	} Unequal
Female	63%	37%	20%	5%	
New Tape Equation	67%	33%	23%	2%	
Male	66%	34%	23%	2%	} Equal
Female	71%	29%	22%	2%	

A combination of the two actions by the SEC ARMY with a new 540 PT score exception, plus the approved supplemental test, reduces the error from 2% to 0% for both sexes.



Research: New Tape for Women



FEMALE (1 site)

$$\% \text{ Body Fat} = -9.15 - (0.015 \times \text{weight}) + (1.27 \times \text{abdomen})$$



Demographics of Army Body Comp. Study

U.S. ARMY

Variable	% of Army (2021 Demographics)	% ACBC Study Population
Gender		
Female	16%	34%
Male	84%	66%
Race/Ethnicity		
Am. Indian or Alaskan Native	1%	1%
Asian or Pacific Islander	7%	10%
Black, not Hispanic	21%	23%
Hispanic	17%	20%
Unknown/Other	1%	1%
White, not Hispanic	54%	45%
Age category		
18-25	41%	40%
26-35	40%	40%
36-50	18%	18%
>51	1%	2%
Physical Demand Category		
Moderate	53%	51%
Significant	17%	17%
Heavy	30%	31%

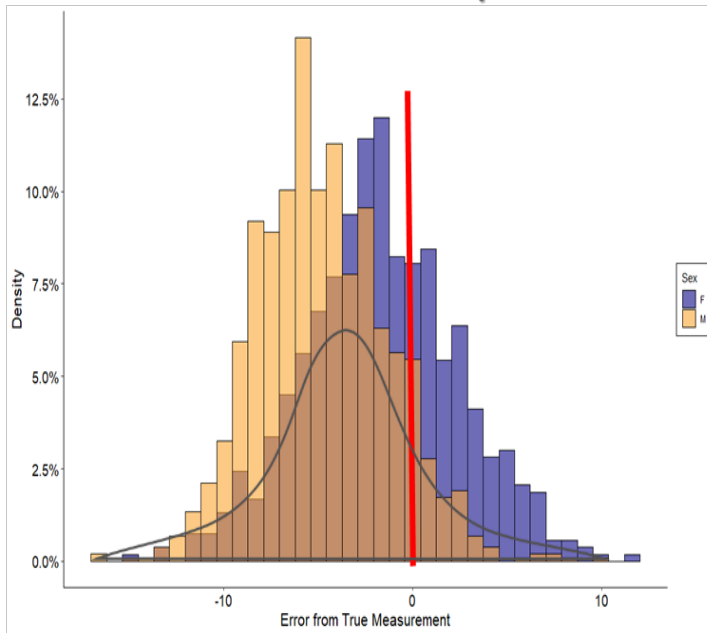
Total = 2690 Soldiers
889 women + 1801 men

- Data collected across all 3 Army compos.
- Study population oversampled women and races and ages composing < 10% of Army.
- Best sample ever taken of US Army – **Represents the Army of Today.**

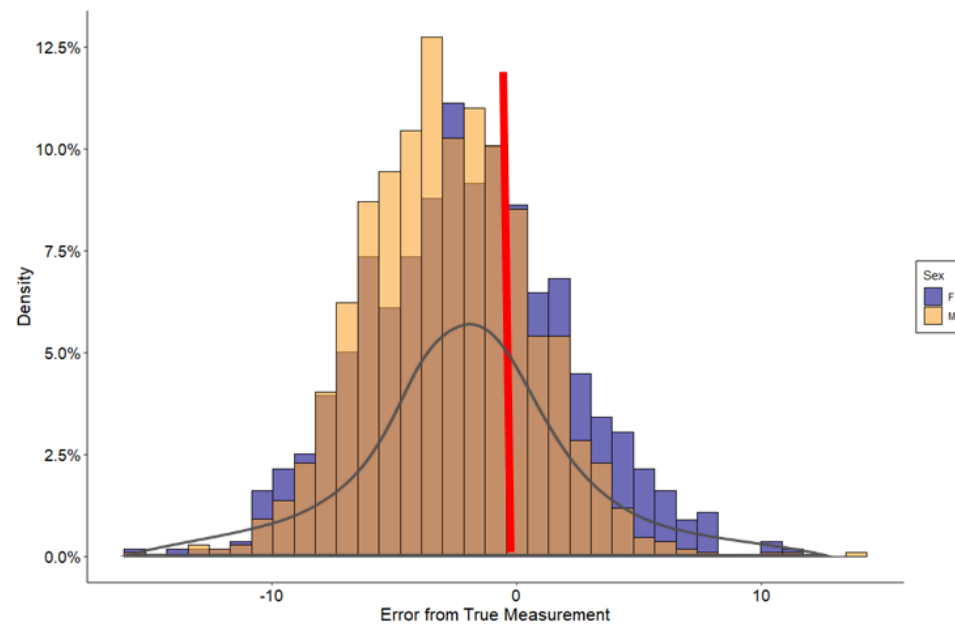


Gender Breakdown of Army Body Fat Tape Test Methods

Current AR 600-9 Equations



Proposed AR 600-9 Equation Updates



MALES (2 sites)

$$\% \text{ Body Fat} = [86.010 \times \text{Log}_{10}(\text{abdomen} - \text{neck})] - [70.041 \times \text{Log}_{10}(\text{height})] + 36.76$$

FEMALES (3 sites)

$$\% \text{ Body Fat} = [163.205 \times \text{Log}_{10}(\text{waist} + \text{hip} - \text{neck})] - [97.684 \times \text{Log}_{10}(\text{height})] - 78.387$$

MALES (1 site)

$$\% \text{ Body Fat} = -26.97 - (0.12 \times \text{weight}) + (1.99 \times \text{abdomen})$$

FEMALE (1 site)

$$\% \text{ Body Fat} = -9.15 - (0.015 \times \text{weight}) + (1.27 \times \text{abdomen})$$



Body Composition and Retention

The Army does not track Army Body Composition as a retention data point. We do not have data to answer this question.