

Contemporary Issues in Army Anthropometry

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The occupational health, safety and performance of people depend, among other things, on clothing, equipment, and workstations that fit their bodies well. Designing clothing and workstations that fit well is particularly challenging for the US Army, which routinely requires its materiel systems to accommodate 90% or more of the target population *without* alteration or special order. As a result, the Army has utilized physical anthropologists and statisticians to help design, size, and purchase its materiel systems since before WWII. In this talk we'll review several contemporary research challenges in Army anthropometry, including statistical modeling of current and future Army body size distributions, accommodation of minority groups in ergonomic design, and technical barriers to full incorporation of 3D scanning technologies in materiel design, sizing, and issuing.

Dr. Claire C. Gordon is Senior Research Scientist (ST) at the US Army Natick Soldier Research, Development, and Engineering Center in Natick, Massachusetts, a 2006-2007 Visiting Scholar at ASU's School for Human Evolution & Social Change, and an affiliated scholar with ASU's Consortium for Science, Policy, and Outcomes. She holds academic degrees in Biology (B.S. Notre Dame, 1976), Biological Anthropology (Ph.D., Northwestern University 1982), and Biostatistics (S.M. Harvard School of Public Health, 1990). Employed since 1983 by Natick, the Army's center of excellence for soldier systems, Dr. Gordon's research interests in human variation, biostatistics, and simulation methodology have influenced the fit and safety of a wide variety of military systems, from helmets, body armor & chemical protection to helicopters and armored vehicles.