

BRUCE BRADTMILLER, Ph.D.

ANTHROTECH

EDUCATION

Northwestern University
Northwestern University
Indiana University, Bloomington

Ph.D., Anthropology, 1984
M.A., Anthropology, 1976
B.A., Anthropology/French, 1975

WORK EXPERIENCE

1983-Present

Anthrotech, Yellow Springs, Ohio, *Project Engineer/Scientist*
President, 1992-Present; *Research Principal*, 1987-1992; *Research Associate*, 1984-1987; *Research Assistant*, 1983-1984

Directed efforts using 3D scans to improve fit and comfort of wearable technology on the wrist/forearm, ears, eyes and head [proprietary]; Principal investigator for US Navy Anthropometric Survey, and associated garment sizing system; Principal investigator for US Army and Marine Corps Anthropometric Survey 2010-2012; Principal investigator for a NIOSH 3-D anthropometric survey, currently the largest nationwide collection of 3-D head and face data in existence. Principal investigator for the USFIT program designed to optimize the use of 3-D data in military clothing issue. Appointed U.S. expert to ISO, TC 159, Ergonomics, SC3/W61, anthropometry and biomechanics section. Project leader on ISO 20685, 3-D methods project and ISO 7250-1, anthropometric measurement definitions. Served as principal investigator on a pilot fall-protection harness project involving the assimilation of 3D scan data, traditional anthropometric data, and the fit of specific products. Managed the 1988 U.S. Army (ANSUR) survey that led to the creation of anthropometric techniques and methodology that have become standards in the field. Designed and directed several specialized anthropometric surveys, including the measuring and scanning of school children's heads, a survey of school bus drivers, and a survey of luxury car buyers. Participated in the human-centered design efforts that led to the development of successful sizing systems for the U.S. Army, the U.S. Navy, the U.S. Forestry Service, and a number of commercial concerns.

1982-1983

University of Tennessee. Visiting Assistant Professor.

Principal task was paleopathological research (NSF Grant). Developed new graduate level course in paleopathology. Taught courses in introductory physical anthropology and racial variation.

Assisted in pathological analyses of forensic cases with the State Forensic Anthropologist. Served on graduate committees of paleopathology students.

1980-1981 University of Wisconsin. Lecturer

Taught Introduction to Human Prehistory.

1976-1982 Northwestern University. Lecturer, Teaching Assistant

Taught Human Gross Anatomy (Department of Anatomy and Cell Biology, School of Medicine), Anatomy of the Vocal Mechanism (Department of Speech Pathology, School of Communicative Disorders).

PROJECT MANAGEMENT EXPERIENCE

U.S. Marine Modular Survival Vest Fit Test, 2015 – 2016. Contractor Principal Investigator for fit test to evaluate the fit, comfort and effectiveness of proposed improvements to the Marine protective vest. Project involved training measurers and fit evaluators, and analyzing data to provide specific recommendations about pattern and design changes.

U.S. Navy Sizing and Correlation Study, 2014 – 2015. Contractor Principal Investigator. Proposed dimension list for anthropometric survey; trained measurement team, supervised data quality. Developed and executed plan for matching Navy data to Army data pool to leverage Navy's 25 dimensions into Army's 94 dimensions.

U.S. Army and Marines Corps Anthropometric Survey, 2010 – 2012. Contractor Principal Investigator. Worked with client to develop measurement list, recruited and trained measurers, maintained data quality, supervised data editing, supervised preparation of 3 published technical reports.

U.S. Navy Head Anthropometry Survey, 2001 – 2003. Project Manager. Supervises the data editing and statistical analysis of both traditional and 3D anthropometric data. Oversees the landmark identification on the scans and the manipulation of the 3D landmark files.

NIOSH Anthropometric Survey of Respirator Users, 2001 – 2004. Principal Investigator. Directed the scientific planning and execution of the nation's first anthropometric survey of respirator users in their own workplace. The survey has both a traditional anthropometry and a 3D scanning component.

NIOSH Whole Body Anthropometric Data Base of Agricultural Workers, 2000 – 2002. Principal Investigator. Directed the scientific planning of the nation's first anthropometric data base of U.S. agricultural workers with a focus on tractor operators. Directed the use of a 3-D whole-body scanner as well as traditional anthropometry in program to identify improvements in roll-over protective structures. Managed two subcontractors.

NIOSH Whole Body Anthropometric Data Base of Construction Workers, 1999 – 2001. Principal Investigator. Directed the scientific planning of the nation's first anthropometric data base of U.S. construction workers. Directed the use of a 3-D whole body scanner as well as traditional anthropometry in program to identify improvements in the fit of fall protection harnesses. Managed one subcontractor.

School Bus Driver Anthropometric Survey, 1998-1999. Principal Investigator. Directed the scientific planning and day-to-day operations of the first nationwide anthropometric survey of school bus drivers. Responsible for dimension selection, dimension definition, and application of dimensions to bus design.

U.S. Navy Aircrew Protective Clothing Programs, 1993 – current. Fit-Test Data Analyst. Responsible for analyzing fit-test data and making pattern recommendations for all the U.S. Navy's aircrew protective ensembles. The project involves dealing with Navy program management as well as directly with the patternmakers.

U.S. Air Force Dress Clothing Programs, 1995 – 2004. Fit-Test Data Analyst. Responsible for analyzing fit-test data and making pattern recommendations for some U.S. Air Force dress clothing programs for both men and women.

U.S. Navy Men's Anthropometric Survey, 1996-1998. Principal Investigator. Directed the scientific planning and day-to-day operations of the Navy's first anthropometric survey of male personnel for clothing application. Responsible for dimension selection, measurer training, sizing of new uniforms, and overall project management.

Apparel Research Network/Defense Logistics Agency Contract SP0100-95-C-1010, 1995-1999. Supertask Manager/Principal Investigator. Serve as supertask manager of the MPG1 group that includes approximately nine partner companies. Task-oriented projects awarded to Anthrotech include standardizing measurement procedures between traditional, tailoring, and 3-D whole-body scanning, data collection and verification, and interpretation of ANSUR data for clothing applications.

George Snively Research Foundation (St. James, NY) 1992-1995. Co-Principal Investigator. Provided day-to-day direction of a nationwide 3-D anthropometric survey of children's head and face dimensions for the sizing and design of children's bicycle helmets. A final product of the study was a four-size series of children's head forms for use by manufacturers of children's protective headgear.

U.S. Air Force Contract F33615-C-90-0572, 1990-1992. Co-principal Investigator. Project supported Armstrong Aerospace Medical Research Laboratory's engineering anthropometry program, including software development, 3-D data collection and analysis, cockpit accommodation and the development of a 3-D whole body scanner. Management of day-to-day contract activities of five Anthrotech staff and three subcontracting firms.

Survey of U.S. luxury car buyers, 1989-1990. Designed and directed the first survey of the American luxury car buyer. Wrote initial proposal, carried out negotiations; advised client on appropriate dimensions for CAD model; designed and carried out data collection; analyzed data, and wrote final report.

ANSUR (U.S. Army Anthropometry Survey), 1984-1989. Directed the program effort for Anthrotech for two consecutive U.S. Army contracts; 22 anthropometrists measured 132 dimensions on 9000 subjects over 12 months; resulted in 10 reports and publications; several awards for involved Army personnel. Project direction from initial proposal through final reports.

FELLOWSHIPS & HONORS

National Science Foundation Graduate Fellowship, 1976-1979
University Fellowship, Northwestern University, 1975-1976
University Scholarships, Indiana University, 1971-1975

Phi Beta Kappa
Phi Eta Sigma

INVITED LECTURES

Seoul National University, Seoul South Korea
Korean Clothing and Textile Society
Korean Agency for Technology and Standards
Cornell University
University of Michigan
Indiana University
The Ohio State University
University of Windsor

PROFESSIONAL AFFILIATIONS

Editorial Board, *Applied Ergonomics*

International Standards Organization (ISO) – Project leader on ISO 20685, “3D Scanning Methodologies for Internationally Compatible Anthropometric Databases”; project leader on ISO 7250-1, “Basic Human Body Measurements for Technological Design – Part 1: Body measurement definitions and landmarks.

American Association of Physical Anthropologists (AAPA)

Human Factors and Ergonomics Society (HFES)

Paleopathology Association

Society of Automotive Engineers

SAFE Association

Yellow Springs Chamber of Commerce

AWARDS

2002 Liberty Mutual Prize in Occupational Safety and Ergonomics, for work reported in Hsiao, H., Bradtmiller B., and Whitestone, J (2003) Sizing and Fit of Fall-Protection Harnesses. *Ergonomics* 46:1233-1258.

2006 Alice Hamilton Award for Excellence in Occupational Safety and Health, Engineering and Physical Sciences Category, for work reported in, Hsiao H, Whitestone J, Bradtmiller B, Whisler R, Zwiener J, Lafferty C, Kau T, Gross M, (2005) Anthropometric Criteria for the Design of Tractor Cabs and Protection Frames. *Ergonomics*(48):323-353

2006 Bullard-Sherwood Award for Research to Practice Award, Knowledge Category, for work reported in Hsiao H., Friess M., Bradtmiller B., Rohlf F. (2009) Development Of Sizing Structure For Fall Arrest Harness Design. *Ergonomics* 52:1128-1143.

2008 Best Paper Award, for a presentation to the International Congress on Physiological Anthropology, Delft, Netherlands, for work reported in B.Bradtmiller, C. Gordon and S. Paquette (2009) Anthropometric Change in the U.S. Army: Implications for Design

Nominated 2013 Charles C. Shepard Science Award of the Centers for Disease Control. Data Methods and Study Design, for work reported in Guan, J., Hsiao, H., Bradtmiller, B., Tsui-Ying, K., Reed, M.P., Jahns, S.K., Loczi, J., Hardee, H.L., and Piamonte, D.P.T. (2012) U.S. Truck Driver Anthropometric Study and Multivariate Anthropometric Models for Cab Designs *Human Factors* 54(5):849–871 .

PAPERS AND PUBLICATIONS

Bradtmiller, B. (2016) "ANSUR vs ANSUR 2: What's Different and What's the Same". Paper presented at the 54th SAFE Symposium, Dayton, OH, Oct 31 – Nov 2, 2016.

Bradtmiller, B. (2016) "Anthropometric Change in the US Army: Using the 2012 Army Data for Civilian Design". Paper presented at the 19th Annual Applied Ergonomics Conference, Orlando, March 21-24, 2016.

Bradtmiller, B. (2016) "Capturing Body Size Variability for Successful Product Design". Paper presented at WEAR 2016 Conference, Boston, May 24 – 26, 2016.

Hubbard, J., and Bradtmiller, B. 2016 "Human Body Size – Worldwide and Regional Design Ranges for Use in Product Standards", paper presented at the Irish Ergonomics Society Annual Conference, University of Limerick, June 16, 2016.

Bradtmiller, B., Barrientos, P., Kristensen, S., Rockwell, B., and Mucher, M. (2016) "An Anthropometric Database for the U.S. Navy: 2014-2015 U.S. Naval Uniform Sizing Correlation Study - Methods and Summary Statistics". Report prepared under contract N00189-14-P-G210 for Navy Clothing and Textile Research Facility, Natick, MA.

Bradtmiller, B., Kristensen, S., and Rockwell, B. (2016) "Proposed Sizing System for the U.S. Navy". Report prepared under contract N00189-15-P-G203 for Navy Clothing and Textile Research Facility, Natick, MA.

Bradtmiller, B. (2015) "Predicting product accommodation: The role of the anthropometric fit test", Paper presented at Proc. of 6th International Conference on Applied Human Factors and Ergonomics and the Affiliated Conferences, Las Vegas NV, USA, pp. 4464-4471, <http://creativecommons.org/licenses/by-nc-nd/4.0/>

Gordon, C., Blackwell, C., Bradtmiller, B., Parham, J., Barrientos, P., Paquette, S. Corner, B., Carson, J., Venezia, J., Rockwell, B., Mucher, M., and Kristensen, S. (2014) 2012 Anthropometric Survey of U.S. Army Personnel: Methods and Summary Statistics. Technical Report NATICK/TR-15/007. US Army Natick Soldier Research, Development and Engineering Center, Natick, MA.

Gordon, C., Blackwell, C., Bradtmiller, B., Parham, J., Hotzman, J., Paquette, S. Corner, B., and Hodge, B. (2013) 2010 Anthropometric Survey of U.S. Marine Corps Personnel: Methods and Summary Statistics. Technical Report NATICK/TR-13/018. US Army Natick Soldier Research, Development and Engineering Center, Natick, MA.

Guan, J., Hsiao, H., Bradtmiller, B., Zwiener, J., Amendola, A., Weaver, D. (2015) "Anthropometric Study of U.S. Truck Drivers- Methods, Summary Statistics, and Multivariate Accommodation Models." DHHS (NIOSH) Publication No. 2015–116.

Bradtmiller, B. (2014) Applied Anthropometry Improves Fit. Ergoweb.
<http://ergoweb.com/complex-anthropometry-made-simple/>

Bradtmiller, B. (2013) "Scan-to-Pattern Clothing Systems: A Systematic Approach", Paper presented at Proc. of 4th Int. Conf. on 3D Body Scanning Technologies, Long Beach CA, USA, pp. 379-383, <http://dx.doi.org/10.15221/13.379>

Kouchi, M., Mochimaru, M., Bradtmiller, B., Daanen, H., Li, P., Nacher, B., and Nam, Y. (2012) "A Protocol for Evaluating the Accuracy of 3D Body Scanners - Landmark Locations and Surface Shape", Paper presented at Proc. of 1st Asian Workshop on 3D Body Scanning Technologies, Tokyo, Japan, pp. 139-146, <http://dx.doi.org/10.15221/A12.139>.

Kouchi, M., Mochimaru, M., Bradtmiller, B., Daanen, H., Li, P., Nacher, B., and Nam, Y. (2012) A protocol for evaluating the accuracy of 3D body scanners. Proceedings of the 1st Asian Workshop on 3D Body Scanning Technologies, Tokyo

Kouchi M, Mochimaru M, Bradtmiller B, Daanen H, Li P, Nacher B, Nam Y (2012) A Protocol for Evaluating the Accuracy of 3D Body Scanners IOS Press, Work 41 (Suppl.);4010-4017

Guan, J. , Hsiao, H., Bradtmiller, B., Kau, T., Reed, M., Loczi, J., Hardee, L., Piamonte, D. (2012) U.S. Truck Driver Anthropometric Study and Multivariate Anthropometric Models for Cab Designs. Human Factors Vol. 54, No. 5, pp. 849-871

Hotzman, J., Gordon, C.C., Bradtmiller B., Corner, B.D., Mucher, M., Kristensen, S.E., Paquette, S., and Blackwell, C.L. (2011) Measurer's Handbook: US Army and Marine Corps Anthropometric Surveys, 2010-2011. Technical Report NATICK/TR-11/017. US Army Natick Soldier Research, Development and Engineering Center, Natick, MA.

Gordon, C.C., Blackwell, C.L., Bradtmiller B., Parham, J.L., Hotzman, J., Paquette, S.P., Corner, B.D., Hodge, B.M. (2010) Anthropometric Survey Of U.S. Marine Corps Personnel: Methods And Summary Statistics,2009-2010. Technical Report NATICK/TR-13/018. US Army Natick Soldier Research, Development and Engineering Center, Natick, MA.

Ziqing Z, Shaffer R, Landsittel D, Bradtmiller B (2010) Correction To "Head and Face Anthropometric Survey of U.S. Respirator Users" Journal of Occupational and Environmental Hygiene, (7):D1–D2

Bradtmiller B, Hodge B, Mucher M, Kristensen S (2010) A 3-D Modeling Database for the Design of U.S. Truck Cabs Contract No. 200-2007-22249 Prepared for Jinhua Guan, Ph.D., NIOSH, Division of Safety Research, Morgantown, WV 26505.

Bradtmiller B, Hodge B, Mucher M, Kristensen S (2009) A Multivariate Anthropometric Model for the Design of U.S. Truck Cabs, Contract No. 200-2007-22249 Prepared for Jinhua Guan, Ph.D., NIOSH, Division of Safety Research, Morgantown, WV 26505.

Hsiao H., Friess M., Bradtmiller B., Rohlf F. (2009) Development Of Sizing Structure For Fall Arrest Harness Design. *Ergonomics* (1):1-16

Paquette S, Gordon C, Bradtmiller B, (2009) Anthropometric Survey (ANSUR) II Pilot Study: Methods And Summary Statistics Final Report June 2006 – September 2008. NATICK/TR-09/014 Prepared for U.S. Army Natick Soldier Research, Development and Engineering Center Natick, Massachusetts 01760-5020.

Bradtmiller B, Hodge B, Kristensen S, Mucher M (2008) Anthropometric Survey Of Federal Aviation Administration Technical Operations Personnel – 2006-2008: Prime Contract DTFAWA-07-C-00059, Report prepared for Federal Aviation Administration Washington, DC 20591

Sarratt R, Bradtmiller B, Kristensen S, Wu Y, Kellner E, (2007) Army Service Dress Uniform Fit Test Report. Sarratt Acquisition Management Inc. Army Class A Uniform Modernization Contract W9124Q-05-C-0308

Bradtmiller B, McCormack D, Southwick N, (2007) Improving Force Protection: JPE Size/Fit Evaluation. Paper presented at the 45th SAFE Symposium, Reno, Nevada

Bradtmiller B (2007) JPE Size-Fit Assessment Subcontract No. 209202, Prime Contract No. SP0700-00-D-3180 / DO 0308 Prime Contract No. SP0700-00-D-3180 / DO 0308 to Battelle Memorial Institute, Subcontract No. 209202

Bradtmiller B (2006) Anthropometric Study Of European Truck Drivers: Data Analysis And Presentation Prepared for Dennis Gryp, Chief Engineer, Truck Seating Division, Sears Seating, Davenport, IA

Zhuang Z, Bradtmiller B, (2005) Head-and-face anthropometric survey of U.S. respirator users. *Journal of Occupational and Environmental Hygiene* (2): 567-576.

Hsiao H, Whitestone J, Bradtmiller B, Whisler R, Zwiener J, Lafferty C, Kau T, Gross M, (2005) Anthropometric Criteria for the Design of Tractor Cabs and Protection Frames. *Ergonomics*(48):323-353

Bradtmiller B (2005) JSLIST Tariff Verification Study Final Report. Prepared under Subcontract No. Kr-0048-AT, ACRNS: HF & KA, KR Systems, Inc. Prime Contract N00421-01-C0048. Joint Program Manager (JPM) Individual Protection U.S. Marine Corps Systems Command (MARCORSYSCOM) Marine Corps Base, Quantico, VA.

Bradtmiller B (2005) Marine Corps SL-8 Fit Test. Final Report. Prepared under Subcontract Purchase Order No. 184905 under Battelle Memorial Institute Prime Contract No. SPO0700-00-D-3180/DO 0234. U.S. Marine Corps System Command, Marine Corps Base Quantico, VA.

Bradtmiller B (2005) Anthropometric Accommodation of A Seat with Stowable Armrest. Prepared for confidential client.

Bradtmiller B (2005) JPACE Fit Risk Reduction Size-Fit Clothing Assessment. Final Report. Prepared under Subcontract KR-0048-AT, ACRNs DD/FL/HG/KG under KR Systems Prime Contract No. N00421-01-C0048. U.S. Navy Clothing & Textile Research Facility, Natick, MA.

Bradtmiller B (2005) JPACE DT/OT Fit-Sizing Clothing Assessment. Final Report. Prepared under Subcontract KR-0048-AT under KR Systems Prime Contract No. N00421-01-C0048. U.S. Navy Clothing & Textile Research Facility, Natick, MA. Hsiao H, Whitestone J, Bradtmiller B, Whisler R, Zweiner J, Lafferty C, Kau T, and

Gross ME (2005) Anthropometric Design of Tractor Cabs and Protection Frames. *Ergonomics*, 48(4):323-353.

Zhuang Z, Guan J, Hsiao H, Bradtmiller B, (2004) Evaluating the representativeness of the LANL respirator fit test panels for the current U.S. civilian workers. *Journal of the International Society for Respirator Protection* (21): 83-93.

Bradtmiller B, Hodge B, Kristensen, S.(2004) International Truck and Engine: Medium Duty Truck Driver Study-Second Phase Prepared for H. Lenora Hardee, NAVISTAR International, Fort Wayne, IN

Friess M and Bradtmiller B (2004) Head Shape Variability Among Navy Aviators: A 3-D Survey and Multivariate Statistical Analysis. Final Report. Prepared under Subcontract No. 136307, TDL: OD 43 under ARINC Prime Contract No. N00421-98-C-1244. Naval Air Systems Command, Patuxent River, MD.

Bradtmiller B and Friess M (2004) A Head-and-Face Anthropometric Survey of US Respirator Users. Final Report. Prepared under Contract No. 200-2001-08010. NIOSH, Pittsburgh, PA.

Bradtmiller B, Gordon CC, Kouchi M, Jurgens HW, and Lee Y (2004) Traditional Anthropometry. Chapter 2.1 In NJ Delleman, CM Haslegrave, and DB Chaffin (eds.): *Working Postures and Movements: Tools for Evaluation and Engineering*, CRC Press LLC, Boca Raton, FL.

Bradtmiller B (2004) Book Review: A Guide to Careers in Physical Anthropology. AS Ryan (ed.), *American Journal of Physical Anthropologists*, 125(1):101-102.

Bradtmiller B (2004) U.S. Air Force Utility Uniform Fit Test. Final Report. Prepared under Subcontract Purchase Order No. 183510, Battelle Memorial Institute Prime Contract No. GS-23F-00112/DO F33601-01-F-A297/SIN871-1,2,3,4. U.S. Air Force Clothing Office, Wright-Patterson AFB, OH.

Bradtmiller B (2004) Seat Armrest Length: Study and Recommendations. Prepared for confidential client.

Bradtmiller B (2004) U.S. Civilian Arm and Leg Proportions for Harley-Davidson. Prepared for confidential client.

Bradtmiller, B (2004) Fit Test Sample Size: A General Approach. Report prepared for U.S. Navy Clothing and Textile Research Facility, Natick, MA.

Bradtmiller, B (2004) Medium Duty Truck Driver Study – Second Phase. Prepared for confidential client.

Bradtmiller B (2003) Anthropometry of Users of Wheeled Mobility Aids: A Critical Review of Recent Work. Presented to Space Requirements for Wheeled Mobility Workshop conducted by U.S. Architectural and Transportation Barriers Compliance Board, Buffalo, NY.

Bradtmiller B and Gross M (2003) Anthropometric Dimensions Extracted From Surface Scans and Measured Directly: Issues for Standardization. *Proceedings of the XVth Triennial Congress of the International Ergonomics Association and 7th Joint Conference of Ergonomics Society of Korea/Japan Ergonomics Society*, Seoul, Republic of Korea, 4 pages. (Paper presented at congress & conference.)

Hsiao H, Bradtmiller B and Whitestone J (2003) Sizing and Fit of Fall-Protection Harnesses. *Ergonomics*, 46(12):1233-1258.

Friess, M and Bradtmiller B (2003) 3D Head Models for Protective Helmet Development. SAE Technical Paper Series 2003-01-2176, SAE International, Warrendale, PA. (Paper presented at 2003 Digital Human Modeling for Design and Engineering Conference and Exposition, Montreal, Canada.)

Gross M, Bradtmiller B, Whitestone J and Lafferty C (2003) Whole Body Anthropometry For The Design Of Farm Tractors And Roll-Over Protective Structures (ROPS). Final Report. Prepared under Contract No. 200-200-08007, NIOSH/DSR, Morgantown, WV.

Bradtmiller B (2003) Joint Protective Aircrew Ensemble (JPACE) DII-B Fit Test. Final Report. Prepared under Subcontract No. 136307, TDL A-D027, under ARINC Prime Contract No. N00421-98-C-1244. Naval Air Warfare Center Aircraft Division, Patuxent River, MD.

Bradtmiller, B (2003) Multi-Climate Protection System (MCPS) Fit Test Results: Phase II. Prepared under Subcontract KR-0048-AT, ACRN: BW, KR Systems Prime Contract No. N00421-01-C0048, Naval Air Systems Command, Patuxent River, MD.

Bradtmiller B (2002) 3-D Anthropometry Standardization Activities. Paper presented at Georgia Institute of Technology Conference, Atlanta, GA

Bradtmiller B, Galletti H, Swavely C, Bryan E, Proodian S and McCormack D (2002) Sizing Systems for Protective Clothing: Less is More. *40th Annual Symposium Proceedings*, SAFE Association, Creswell, OR, 6 pages. (Paper presented at 40th symposium, Jacksonville, FL.)

Bradtmiller, B (2002) 2001 Hot Weather Boot Evaluation Data Analysis and Recommendations. Prepared under Subcontract KR-0048-AT, ACRN: BW, KR Systems Prime Contract No. N00421-01-C0048, Naval Air Warfare Center Aircraft Division, Patuxent River, MD.

Bradtmiller, B and Gross ME (2002) Torso Size and Shape: Data Collection and Summary Statistics. Prepared for confidential client.

Gryp D and Bradtmiller B (2002) Anthropometric Study of U.S. Truck Drivers: Methods and Approach. SAE Technical Paper Series 2002-01-3107, SAE International, Warrendale, PA. (Paper presented at 2002 SAE International Truck and Bus Meeting and Exhibition, Detroit MI.)

Bradtmiller B (2001) Anthropometric Study of U.S. Truck Drivers: Data Analysis and Presentation. Prepared for confidential client.

Bradtmiller B (2001) US Navy Men's Anti-Exposure Coverall and Liner: Fit Test II. Final Report. Prepared under Subcontract No. 136307 TDL No. OC13 under ARINC Prime Contract No. N00421-98-C-1244/0013, Naval Air Warfare Center Aircraft Division, Patuxent River, MD.

D'Andrade J and Bradtmiller B (2001) The Design of Effective Head and Hearing Protection: A 3 Dimensional/Traditional Survey of Head and Face Anthropometry. *36th Annual Symposium Proceedings*, SAFE Association, Nashville, TN.

Gross M, Bradtmiller B, Whitestone J, and Lafferty C (2001) Development of a Pilot Study of Whole Body Anthropometry for the Design and Sizing of Fall-Protection Harnesses. Final Report. Prepared under Contract OMB No. 0900-0115, NIOSH/DSR, Morgantown, WV.

Bradtmiller B (2001) Sizing, Fit and Integration Study: Modular Integrated Communications Helmet. Final Report. Prepared under Contract No. USZA22-00-P-0053, U.S. Army Systems Solider Command, Natick, MA.

Bradtmiller B (2001) Building an Anthropometric Database for Wheelchair Users: A Sampling Dilemma. Paper presented at Anthropometrics of Disability: An International Workshop, State University of New York at Buffalo, Buffalo, NY.

Bradtmiller B, (2000) U.S. Navy Fit Test: Men's Anti-Exposure Coverall and Liner Contract No. N00421-98-C-1244/0013 Prepared for ARINC, Annapolis, MD

Bradtmiller B (2000) Development of Test Cases for Joint Strike Fighter Maintainers. Final Report. Prepared under Subcontract No. 136307, TDL No. OA29 under ARINC Prime Contract NO. N00421-98-C-1244/0013, Naval Air Warfare Center Aircraft Division, Patuxent River, MD.

Bradtmiller B (2000) Whole Body Anthropometry: A Comparison of Two Postures. SAE Technical Paper Series 2000-01-2147, SAE International, Warrendale, PA. (Presentation at 2000 Digital Human Modeling for Design and Engineering Conference and Exposition, Dearborn, MI.)

Bradtmiller B (2000) Anthropometry for Persons with Disabilities: Needs in the Twenty-First Century. *Proceedings of the RESNA 2000 Annual Conference*, RESNA Press, Arlington, VA, pp 543-548. (Paper presented at 2000 conference, Orlando, FL.)

Bradtmiller B, Whitestone J, Feldstein J, Hsaio H, and Snyder K (2000) Improving Fall Protection Harness Safety: Contributions of 3-D Scanning. *Proceedings of Scanning 2000: The European Meeting Point for Scanning* (pp.117-128). Paris, France: NUMERISATION 3D.

Bradtmiller B and Gross ME (2000) Human Body Size for Truck Cab Design. SAE Technical Paper Series 2000-01-3404, SAE International, Warrendale, PA. (Paper presented at 2000 SAE Truck and Bus Meeting and Exposition, Portland, OR.)

Bradtmiller B, Hodge B, and Kristensen S (2000) Body Holder Fit Test. Final report for confidential client.

Bradtmiller B, Hodge B, Kristensen S, (1999) NAVISTAR School Bus Driver Study Prepared for H. Lenora Hardee, NAVISTAR International, Fort Wayne, IN

Bradtmiller B (1999) Sizing Study for the Modular Integrated Communications Helmet Pad Suspension System. Final Report. Prepared under Contract No. USZA22-99-P-0060, U.S. Army Systems Solider Command, Natick, MA.

Bradtmiller B (1999) US Navy Fit Test: Men's Anti-Exposure Coverall and Liner. Final Report. Prepared under BOA Subcontract No. 136307, under ARINC Prime Contract No. N00421-98-C-1244/0013, Naval Air Warfare Center, Aircraft Division, Patuxent River, MD.

Bradtmiller B (1999) Navy Sting Report: Fit Test Secondary Analysis. Final Report. Prepared under Contract No. N62269-96-M-3020, Naval Air Warfare Center, Patuxent River, MD.

Bradtmiller B and Galletti H (1999) Male and Female Sizing in Aircrew Protective Ensembles: Lessons from the Trenches. *37th Annual Symposium Proceedings*, SAFE Association, Nashville, TN, 6 pages. (Paper presented at 37th Symposium, Atlanta, GA.)

Bradtmiller B, Hodge B, and Kristensen S (1999) Anthropometry of U.S. School Bus Drivers. Final report for confidential client.

Bradtmiller B (1999) Modular/Integrated Communications Helmet (MICH II) Fit Source Selection Testing. Final Report. Prepared under Contract No. USZA22-99-P-0039, U.S. Army Systems Solider Command, Natick, MA.

Bradtmiller B (1999) Modular/Integrated Communications Helmet (MICH) Fit and Sizing Testing. Final Report. Prepared under Contract No. USZA22-99-P-0101, U.S. Army Solider Center, Natick, MA..

Bradtmiller B and Gross ME (1999) U.S. Navy Head Anthropometry for Helmet Design. Prepared under Contract No. N00421-98-M-6256, Naval Air Warfare Center, Aircraft Division, Patuxent River, MD.

Bradtmiller B (1999) US Navy Fit Test: Women's Anti-Exposure Coverall and Liner: Second Iteration. Prepared under Contract No. N00421-98-M-5759, Naval Air Warfare Center, Aircraft Division, Patuxent River, MD.

Gross ME and Bradtmiller B (1999) U.S. Navy Head Anthropometry for Helmet Design. In *Proceedings of the Human Factors and Ergonomics Society 43rd Annual Meeting*, Santa Monica, CA, pp 1070-1074. (Paper presented at the 43rd Meeting, Houston, TX.)

Bradtmiller B and Gross ME (1999) 3D Whole Body Scans: Measurement Extraction Software Validation, SAE Technical Series Paper 1999-01-1892, SAE International, Warrendale, PA. (Paper presented at the 1999 Digital Human Modeling for Design and Engineering International Conference and Exposition, The Hague, The Netherlands.)

Bradtmiller B (1998) Assessing the Fit of the Flyer's Summer Coverall on Female Aircrew of the U.S. Navy, Marines, Coast Guard and Air Force. Prepared under Contract No. N00421-98-M-5759, Naval Air Warfare Center, Aircraft Division, Patuxent River, MD.

Bradtmiller, B (1998) Improving Children's Bike Helmets. *Practicing Anthropology*, 20(2):34-37.

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