

PAUL M. VANDERBURGH, EdD, FACSM
Associate Provost, Graduate Academic Affairs
Professor, Health and Sport Science
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EDUCATION

EdD	Applied Physiology	Columbia University	New York, NY	1992
EdM	Applied Physiology	Columbia University	New York, NY	1991
MA	Physical Education	University of Georgia	Athens, GA	1988
BS	Aerospace Engineering	United States Military Academy	West Point, NY	1982

EXPERIENCE

July 2010 – Present:

Associate Provost, Graduate Academic Affairs, University of Dayton, Dayton, OH. Responsible for the administration of all graduate (9 doctoral, 47 masters), continuing education, distance learning (academic), leadership and executive development, and lifelong learning programs for the University. Accomplishments include:

- Developed and launched the Graduate Student Showcase in 2015, designed to annually recognize outstanding scholarly and creative work
- Led the Jan 2015 LexisNexis MBA initiative in which 28 employees enrolled in the cohorted MBA program taught on-site at the workplace; another cohort of 18 began Jan 2016
- Authored the Physician Assistant master's program proposal for the Ohio Board of Regents
- Established a new Bachelors plus Masters tuition discount model; increased net revenue by \$500,000 annually
- Developed, implemented, and attended a new annual E-Learning Fellows program in 2012, designed to train faculty members to design online courses that meet quality standards; five cohorts have graduated (N=55 total)
- Developed a new dashboard of enrollment metrics for graduate admissions
- Developed and implemented a new process for all graduate program reviews
- Led the process of completing a comprehensive strategic plan for GAA
- Led the transition of graduate instruction and services for over 1800 students to River Campus (formerly the NCR World Headquarters)
- Led the initiative to move the University's 2000-member Osher Lifelong Learning Institute, the nation's largest, into the new River Campus facility

Aug 2004 – June 2010:

Chair, Health and Sport Science Department, University of Dayton, Dayton, OH. Responsible for all operations of a 619 student, 18 full-time and 20 adjunct faculty department with seven undergraduate academic majors (pre-physical therapy, nutrition, dietetics, sport management, exercise physiology, exercise science, and physical education), two masters programs (exercise science and physical education) and a Doctor of Physical Therapy (DPT) program.

Accomplishments included:

- Led all phases of the creation of the Doctor of Physical Therapy Program in 2006 to include facility, funding, faculty, students and approvals
- Co-wrote the teaching learning chapter for the Higher Learning Commission 2007 accreditation
- As chief admissions officer of the department, developed a comprehensive strategy that doubled department enrollment in five years
- Changed the MS Exercise Science thesis deliverable to a submitted research manuscript; this resulted in over 20 peer-reviewed publications from and with graduate students since 2004
- Fundraised over \$900,000 for department innovations including the Whalen Sports Library, the DPT labs, and the Foods Lab
- Invented the Flyer Handicap, an age- and weight-adjusting handicap system for distance runners (over 200,000 website hits since 2006)

May 2002 – July 2004:

Vice President, Market Research, Tark Inc., Dayton OH. Responsible for all sales, market research account management activities for a \$6M private engineering and manufacturing firm, the industry leader in cooling pumps and heat exchangers for industrial and medical x-ray applications. Key negotiator for two deals that increased sales by 20% in two years.

May 2000 – May 2002:

Vice President, Consumer Research, Design Forum, Dayton OH. Developed, from scratch, a consumer research division for a national retail design/consulting firm. Within two years, fees from this division totaled \$2M annually. Responsibilities included supervision of five research professionals, development of all research proposals and execution of all research methodologies, final report writing and presentation, and budgetary accountability.

Aug 1995 – May 2000:

Associate and Assistant Professor, Health and Sport Science Department, University of Dayton, Dayton, OH. Coordinated the Pre-Physical Therapy program, taught graduate and undergraduate courses especially those related to research design, statistics, anatomy and physiology. Published research in math modeling of human performance.

Aug 1992 – Aug 1995:

Assistant Professor, Department of Physical Education, Springfield College, Springfield MA. Taught courses in exercise physiology especially those related to tests and measurement, stress physiology, and fitness testing. Published research on physical fitness testing and allometric modeling of physical performance measures.

Apr 1989 – Aug 1992:

Assistant Professor, Department of Physical Education, United States Military Academy, West Point, NY. Taught basic exercise physiology, fitness for life, gymnastics, self defense, aerobic conditioning, and conducted research on physical fitness testing not only for the academy but for the Army as well.

May 1982 – Apr 1989:

United States Army Infantry Officer (active duty). Infantry platoon leader, company executive officer, general's aide, and company commander on the DMZ in Korea, and in various stateside units.

PEER-REVIEWED PUBLICATIONS

1. **Vanderburgh P**. An age and body mass handicap for the marathon. Measurement in Physical Education and Exercise Science. 19:219-225. 2015.
2. Ordway J, **Vanderburgh P**, Jackson K, Laubach. The effects of backwards running training on forward running economy in trained males. Journal of Strength and Conditioning Research. In press.
3. Trubee N, **Vanderburgh P**, Diestelkamp W, Jackson K. Effect of heat stress and sex on pacing in marathon runners. Journal of Strength Conditioning Research. 28:1673-78. 2014.
4. **Vanderburgh P**. Validity of Boston Marathon qualifying times. International Journal of Sports Physiology and Performance. 8:685-87. 2013.
5. **Vanderburgh P**, Mickley N, Anloague P, Lucius K. Load carriage distance run and pushups tests: No body mass bias and occupationally relevant. Military Medicine. 176(9):1032-1036. 2011.
6. Jackson K, Merriman H, **Vanderburgh P**, Brahler J. Acute effects of whole-body vibration on lower extremity muscle performance in persons with multiple sclerosis. Journal of Neurologic Physical Therapy. 32(4):171-176. 2008.
7. **Vanderburgh P**. Occupational relevance and body mass bias in military physical fitness tests. Medicine and Science in Sports and Exercise. 40(8):1538-1545. 2008.
8. Crecelius A, **Vanderburgh P**, Laubach L. Contributions of body fat and effort in the 5K Run Age and Body Weight Handicap. Journal of Strength and Conditioning Research. 22(5):1475-1480. 2008.
9. **Vanderburgh P**, Laubach L. Body mass bias in a competition of muscle strength and aerobic power. Journal of Strength and Conditioning Research. 22(2):375-382. 2008.
10. **Vanderburgh P**. Correction factors for body mass in military physical fitness tests. Military Medicine. 172(7):738-742. 2007.
11. **Vanderburgh P**, Laubach L. Derivation of an age and weight handicap for the 5K run. Measurement in Physical Education and Exercise Science. 11(1):49-59. 2007.
12. **Vanderburgh P**, Laubach L. Validation of a 5K age and weight run handicap model. Journal of Exercise Physiology^{online}. 9(3):33-40. 2006.
13. **Vanderburgh P**, Laubach L. Body weight penalties in the physical fitness tests of the Army, Air Force, and Navy. Military Medicine. 171(8):753-756. 2006.
14. Brahler J, Harden J, McHone M, Soules M, Evans E, Alyanak A, Diakping F, **Vanderburgh P**. Disaggregating the relative influence of genetic, environmental, and individual factors on the relationships between LDL and HDL cholesterol and BMI for a sample of African American mothers and their daughters. Journal of Exercise Physiology^{online}. 9(1):24-31. 2006.
15. **Vanderburgh P**. Open-book tests and student-authored exam questions as useful tools to increase critical thinking. Advances in Physiology Education. 29:183-84. 2005.

16. Flanagan S, **Vanderburgh P**, Borchers S, Kohstall C. Training college age women to perform the pull-up exercise. Research Quarterly for Exercise and Sport. 74(1):52-59. 2003.
17. **Vanderburgh P**, Flanagan S. The backpack run test: a model for a fair and occupationally relevant military fitness test. Military Medicine. 165(5):418-21. 2000.
18. Rowland T, Miller K, **Vanderburgh P**, Goff D, Martel L, Ferrone L. Cardiovascular fitness in pre-menarcheal girls and young women. International Journal of Sports Medicine. 21(2):117-21. 2000.
19. **Vanderburgh P**, Laubach L. Modeling a two-mile run age and body weight handicap for men and women. Biomedical Sciences Instrumentation. 36:325-30. 2000.
20. **Vanderburgh P**, Dooman C. Considering body mass differences, who are the world's strongest women? Medicine and Science in Sports and Exercise. 32(1):197-201. 2000.
21. Dooman C, **Vanderburgh P**. Allometric modeling of the bench press and squat: Who is the strongest regardless of body mass? Journal of Strength and Conditioning Research. 14(1):32-36. 2000.
22. **Vanderburgh P**. A simple index to adjust maximal strength measures by body mass. Journal of Exercise Physiology^{online}. 2(4):7-12. 1999.
23. **Vanderburgh P**, Batterham A. Validation of the Wilks powerlifting formula. Medicine and Science in Sports and Exercise. 31(12):1869-75. 1999.
24. Batterham A, **Vanderburgh P**, Mahar M, Jackson A. Modeling the influence of body size on VO₂ peak: effects of model choice and body composition. Journal of Applied Physiology. 87(4):1317-25. 1999.
25. **Vanderburgh P**, Daniels G, Crowder T, Lachowetz T, Elliott R. The 10-min Cycle Ergometer Test: A Body-Mass Adjusted Test of Maximal Aerobic Power. Journal of Strength and Conditioning Research. 12(1):12-17. 1998.
26. **Vanderburgh P**. Two important cautions in the use of allometric scaling: The common exponent and group difference principles. Measurement in Physical Education and Exercise Science. 2(3):153-64. 1998.
27. Kusano M, **Vanderburgh P**, Bishop P. Impact of body size on women's military obstacle course performance. Biomedical Sciences Instrumentation. 34:357-62. 1998.
28. **Vanderburgh P**, Sharp M, Nindl B. Nonparallel slopes using analysis of covariance for body size adjustment may reflect inappropriate modeling. Measurement in Physical Education and Exercise Science. 2(2):127-35. 1998.
29. **Vanderburgh P**, Edmonds T. The Effect of Experimental Alterations in Excess Mass on Pull-up Performance in Fit Young Men. Journal of Strength and Conditioning Research. 11(4):230-33. 1997.
30. Rowland T, **Vanderburgh P**, Cunningham L. Body size and the growth of maximal aerobic power in children: A longitudinal analysis. Pediatric Exercise Science. 9(3):262-74. 1997.
31. Rowland T, Cunningham L, Martel L, **Vanderburgh P**, Manos T, Charkoudian N. Gender effects on submaximal energy expenditure in children. International Journal of Sports Medicine. 18(6):420-25. 1997.
32. **Vanderburgh P**, Kusano M, Sharp M, Nindl B. Gender differences in muscular strength: an allometric model approach. Biomedical Sciences Instrumentation. 33:100-05. 1997.

33. Rowland T, Martel L, **Vanderburgh P**, Manos T, Charkoudian N. The influence of short-term aerobic training on blood lipids in healthy 10-12 year old children. International Journal of Sports Medicine. 17(7):487-92. 1996.
34. **Vanderburgh P**, Katch F. Ratio scaling of VO₂max penalizes women with larger percent body fat, not lean body mass. Medicine and Science in Sports and Exercise. 28:1204-08. 1996.
35. **Vanderburgh P**, Katch F, Schoenleber J, Balabinis C, Elliott R. Multivariate allometric scaling of men's world indoor rowing championship performance. Medicine and Science in Sports and Exercise. 28(5):626-30. 1996.
36. Rowland T, Maresh C, Charkoudian N, **Vanderburgh P**, Castellani J, Armstrong L. Plasma norepinephrine responses to cycle exercise in boys and men. International Journal of Sports Medicine. 17(1):22-6. 1996.
37. **Vanderburgh P**, Mahar M. Scaling of 2-Mile Run times by body weight and fat-free weight in college-age men. Journal of Strength and Conditioning Research. 67-70. 1995.
38. **Vanderburgh P**. An improved 12-Minute Cycle Ergometer Test. Journal of Strength and Conditioning Research. 9(4):261-63. 1995.
39. Horodyski M, De Meersman R, **Vanderburgh P**, Gallagher D. With environmental control, the effects of race and sex on blood pressure regulatory mechanisms appear diminished. Journal of Human Hypertension. 9(2):107-11. 1995.
40. Davies M, Dalsky G, **Vanderburgh P**. Allometric Scaling of VO₂max by Body Mass and Lean Body Mass in Older Men. Journal of Aging and Physical Activity. 3(4):324-31. 1995.
41. Ball T, Headley S, **Vanderburgh P**, Smith J. Periodic carbohydrate replacement during 50 min of high-intensity cycling improves subsequent sprint performance. International Journal of Sport Nutrition. 5(2):151-58. 1995.
42. **Vanderburgh P**, Mahar M, Chou C. Allometric scaling of grip strength by body mass in college-age men and women. Research Quarterly for Exercise and Sport. 66(1):80-4. 1995.
43. **Vanderburgh P**. An improved 12 Minute Stationary Cycle Ergometer Test. Journal of Sport Rehabilitation. 2(3):268-73. 1993.
44. **Vanderburgh P**, The 12-Minute Stationary Cycle Ergometer Test: An efficacious test of VO₂max for the injured. Journal of Sport Rehabilitation. 2(2):189-95. 1993.
45. **Vanderburgh P**. Ability of the Army Circumference Method to detect changes in subcutaneous fat over a 9-week period. Military Medicine. 157(4):186-88. 1992.
46. **Vanderburgh P**. Fat distribution: its physiological significance, health implications, and its adaptation to exercise training. Military Medicine. 157(4):189-92. 1992.

BOOK CHAPTERS

1. **Vanderburgh P**. Body mass bias in exercise physiology. In An International Perspective on Topics in Sports Medicine and Sports Injury. Zaslav K., Ed. In-Tech Publishers, pp.99-112, 2012.
2. **Vanderburgh P**, Considine W. Assessing health-related and functional fitness. In The Stairmaster Handbook, J. A. Peterson, Ed. Sports Publishing, pp. 131-156, 1995.

BOOKS/MANUAL

Vanderburgh P. Functional Anatomy of the Upper Extremity. Dayton OH: Clinical Specialty Education, 198 pp, 1999. (Hand therapy lab manual for a 16 hour continuing education course)

PRESENTATIONS/ABSTRACTS: Over 50 presentations (and corresponding published abstracts) at national meetings of:

- American College of Sports Medicine
- American Alliance of Health, Physical Education, Recreation and Dance
- National Strength and Conditioning Association
- American Physical Therapy Association

FUNDED GRANTS

- **Vanderburgh P.** \$25,000. "Adaptation of the 10-Minute Cycle Ergometer Test to the Stairmaster Spinnaker." Awarded spring 2000 by Stairmaster, not funded due to career change in 2000.
- **Vanderburgh P.** \$9,000. "Training college-age women to perform the pull-up exercise." University of Dayton Research Council Seed Grant. 1999.
- **Vanderburgh P.** \$4,000. "Enhancement of the Kinesiology/Biomechanics curriculum." University of Dayton Fund for Educational Development Grant. 1999.
- **Vanderburgh P.** \$4,000. "Gender comparisons of the influence of lean body mass and fat mass on military occupational lifting tasks." University of Dayton Research Council Seed Grant. 1997.
- **Vanderburgh P & Baer J.** \$6,046. "Integrating Technology into exercise science and nutrition course offerings." University of Dayton Fund for Educational Development Grant. 1995.
- **Vanderburgh P.** \$3,995. "Establishment of norms for the 10-Minute Cycle Ergometer Test." University of Dayton Research Council Seed Grant. 1996.
- **Vanderburgh P & Mahar, M.** \$4,500. "Development of body mass adjusted norms for grip strength." Funded by Lafayette Instruments, Lafayette, IN. 1993.
- **Vanderburgh P & Mahar, M.** \$6,335. "Integration of exercise science prescription software into the Health Fitness curriculum." Springfield College Appleton Lippincott Grant. 1993.

AWARDS/ACHIEVEMENTS

- Keynote Speaker, Grand Valley State University Graduate Student Celebration, Grand Rapids, MI, April 2013
- Graduate of Leadership Ohio Program, 2008
- Graduate, Marianist Educational Associate Formation Program, University of Dayton, 2008
- Graduate, Institute for Administrators in Catholic Higher Education, Boston College, MA, 2008
- Promoted to Professor, 2008
- Selected to attend Marianist Universities Meeting, Chaminade University, Honolulu, HI, 2006 and 2009
- Graduate of Leadership UD Program, 2006

- Selected for the Development Team, Leadership UD, 2006-2008
- Graduate of the Leadership Institute for Department Chairs, American Association of Colleges for Teacher Education, Charlotte, NC, 2006
- Keynote Speaker, University of Dayton Honors Convocation and Reception, 2006
- Selected to attend Collegium, a one-week colloquy on Faith and the Intellectual Life, College of the Holy Cross, Worcester, MA, 2005
- University of Dayton Brother Eugene O'Neill Inspirational Educator Award, 2000
- Invited Attendee and Graduate, Center for Disease Control and Prevention's Physical Activity and Public Health Research Training Course, Hilton Head, South Carolina, 1999
- University of Dayton School of Education's Scholarship Award, 1999
- Awarded tenure, University of Dayton, School of Education, 1999
- Elected Fellow, American College of Sports Medicine (FACSM), 1999
- Selected for early promotion to Major, U.S. Army, 1992
- Finalist, U.S. Army's Astronaut Program, 1991
- U.S. Army Ranger Tab, 1983
- U.S Army Airborne Badge, 1980

SELECTED EXAMPLES OF PROFESSIONAL SERVICE

- Executive Board Member for Northeast chapter of the American College of Sports Medicine, 1994-95
- Tests and Measurement Council, AAHPERD, 1993-1996
- Manuscript reviewer (1993 – present):
 - Associate Editor for Journal of Strength and Conditioning Research, 1998-2000
 - Editorial Board Member for Measurement in Physical Education and Exercise Science, 1998-2000
 - Reviewer of over 40 research articles from journals including: Journal of Applied Physiology, Medicine and Science in Sports and Exercise, European Journal of Applied Physiology, Research Quarterly for Exercise and Sport, Journal of Strength and Conditioning Research, Measurement in Physical Education and Exercise Science, International Journal of Sports Medicine, and Pediatric Exercise Science

SELECTED EXAMPLES OF UNIVERSITY SERVICE

- Chair, the University's Carnegie Community Engagement Classification task force, 2013 – 2015 (awarded the classification in 2015)
- Co-chair, the University's of Dayton's Mission and Identity Task Force, 2010- present
- Marianist Education Associates Program 2008 - Present
- University of Dayton Assessment and Higher Learning Commission Accreditation Committees (including self-study sub-committee chair), 2005-2007
- Leadership UD Development Team, 2006-2008
- Facilitator, University of Dayton Hiring for Mission Retreats, 2006 – present
- University of Dayton Research Council, 2004 – present
- Member, University of Dayton Rector's Council, 1998-2000

SELECTED EXAMPLES OF COMMUNITY SERVICE

- Oakwood (OH) Board of Education: President 2007-2010, Vice President 2005-2007, Member 2004-2005
- Boonshoft Museum of Discovery Board of Trustees, Executive Committee 2010-present, Member 2009 - 2110