



# Mark Benden, PhD, CPE

Department Head for Environmental & Occupational Health,  
School of Public Health  
Texas A&M Health Science Center

## Contact

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## Professional Networks

[Orcid](#)  
[Research Gate](#)  
[Scholars @ TAMU](#)  
[Google Scholar](#)  
[Google Patents](#)

## Educational Qualifications

**PhD** – Dec 2006  
Texas A&M University,  
Interdisciplinary Engineering  
Specialization in Ergonomics

**MS** – May 1992  
Texas A&M,  
Industrial Engineering  
Specialization in Human Factors  
and Ergonomics

**BS** – May 1990  
Texas A&M,  
Bioengineering Specialization in  
Human Factors

**CPE** – Oct 1994  
Board of Certification in  
Professional Ergonomics, Inc.

## Impacts

### Contributions to Ergonomic Health and Safety

- Research has resulted in the development of the ANSI/BIFMA X6.1-2012 Educational Seating Standard, the ANSI/BIFMA G1 Ergonomic Standard, the improvement of the ANSI/BIFMA X5.1-2012 Seating Standard and the creation of the ANSI/BIFMA X5.11 Large Occupant Office Seating Standard.
- First patent, a 4-way adjustable office chair arm (1990) was the top approach to ergonomic chair arms for decades.
- According to Patent Vector, his 25 patented inventions are some of the most highly cited patents in the field of ergonomics and **rank above 82% of ALL US patents ever issued for impact**, with an estimated lifetime value of over \$2 billion.

### Stand-Biased Desk Interventions in Children and Adults

- Developed the theory of *Technology Induced Inactivity* for children and adults to describe effects of sedentariness in modern-day life on health outcomes.
- Discovered novel methods of monitoring children activity in situ by use of fNIRS in schools as part of a 450-student intervention over two academic calendar years. His work in this area has received international acclaim and his publications on this topic are in the top 1% of altmetrics.
- His top paper on adult sedentarianism is still #1 in the *IIE Transactions on Occupational Ergonomics and Human Factors* with an Altmetric score of 929 - the top 0.003 percentile of articles all-time and #18 for TAMU all-time.

### Technology Advancements in Physical Activity and Energy Expenditure Measurement

- Many of his early designs were breakthroughs in the field of ergonomics and are now industry standards that have been deployed in millions of units of products sold.
- Pioneered objective mass data collection methods for employers with sensors on desks and computers, completely changing the potential for understanding the effectiveness of interventions, establishing a dose response rate, and office ergonomic monitoring.
- Consistently pushes the field of wearable monitoring for physical activity to new methods, techniques and tools by developing and testing new sensors.

## Professional Experience

<b>Texas A&amp;M Health Science Center, School of Public Health, Environmental &amp; Occupational Health Department</b>	Sep 2015 to present
<i>Department Head, Full Professor &amp; Director of the Ergonomics Center (dba Center for Worker Health as of 7/24)</i>	
<i>Interim Department Head Health Promotion &amp; Community Health Sciences Dept</i>	
<i>Full Professor, Industrial &amp; Systems Engineering Department</i>	
<i>Full Professor, Multi-Disciplinary Engineering Department</i>	
<i>Faculty Fellow, Center for Remote Health Technologies &amp; Systems</i>	
<i>Faculty Fellow, Center for Community Health Development</i>	
<i>Faculty Fellow, Center for Health System &amp; Design</i>	
<i>Faculty Fellow, Center for Population Health &amp; Aging</i>	
 <i>Associate Professor &amp; Director of the Ergonomic Center</i>	Sep 2013 - Sep 2015
 <i>Assistant Professor &amp; Co-Director of the Ergonomics Center</i>	Jul 2008 – Sep 2013
<b>HumanateDigital, Inc.,</b> (Faculty led Startup Company)	Sep 2022 to Present
<i>CTO &amp; Co-Founder</i>	
<b>Stand2Learn, Inc.,</b> (Faculty led Startup Company)	Sep 2011 to Jan 2018
<i>CEO &amp; Founder</i>	
<i>Majority Share Holder</i>	
<b>Texas A&amp;M Health Science Center, School of Public Health, Environmental &amp; Occupational Health Department</b>	Sep 2013 to Sep 2015
<i>Associate Professor &amp; Director of the Ergonomics Center</i>	
<b>Texas A&amp;M Health Science Center, School of Rural Public Health, Environmental &amp; Occupational Health Department</b>	Jul 2008 to Sep 2013
<i>Assistant Professor &amp; Co-Director of the Ergonomics Center</i>	
<b>Neutral Posture, Inc.</b>	Oct 1998 to Jun 2008
<i>Executive Vice President of Engineering Development &amp; Sales</i>	
<b>Neutral Posture Ergonomics, Inc.</b>	Feb 1998 to Oct 1998
<i>Director of Engineering and Development</i>	
<b>Johnson &amp; Johnson Safety &amp; Industrial Hygiene</b>	Mar 1997 to Feb 1998
<i>Staff Ergonomic Engineer Franchise Safety Manager, Cordis, Inc.</i>	
<b>Johnson &amp; Johnson Safety &amp; Industrial Hygiene</b>	May 1994 to Mar 1997

*Senior Ergonomic Engineer*

<b>ETHICON, Inc.</b> <i>Ergonomic Engineer</i>	May 1992 to May 1994
<b>M. E. Benden Company</b> <i>Ergonomic Design Consultant</i> <i>Expert Witness</i>	Sept 1988 to present
<b>Pathway Industries, Inc.</b> <i>Ergonomic Consultant</i>	Jun 1991 to Jun 1992
<b>United State Army Reserve and Texas Army National Guard</b> <i>First Lieutenant – last rank before moving to Inactive Reserve</i>	Dec 1985 to Dec 1993

## Funded Research

<b>Seedling Intramural Grant TAMU HSC</b> Contract: \$75,000 <i>PI: Benden</i> <i>Emergency Procedures Development</i>	Jun 2024 to Jun2025
<b>PCC/TTI</b> <b>Assessment of Temporary Portable Rumble Strips And Retrieval Methods</b> TTI grant:\$75,000 <i>PI: Benden</i>	April 2023-Dec 2023
<b>NIOSH - CDC</b> <b>Occupational Safety and Health Training Center</b> NIOSH Grant: \$750,000 <i>PI: Benden</i>	Mar 2023 to Dec 2028
<b>General Motors</b> Contract: \$180,000 <i>PI: Benden</i> <i>Ergonomic Evaluation of the Arlington assembly plant production line</i>	Dec 2022 to Jun 2024
<b>Seedling Intramural Grant TAMU HSC</b> Contract: \$100,000 <i>PI: Benden</i> <i>Digital Human Clinical receptionist</i>	Jan 2023 to Jan 2024
<b>Seedling Intramural Grant TAMU HSC</b>	Jan 2023 to Jan 2024

Contract: \$150,000

*Co- PI: Benden*

*College of Nursing digital human build for cancer training in rural settings*

**USPHS Grant**

Mar 2022 to Mar 2023

Contract: \$380,000

*PI: Benden*

*Training Modernization in partnership with UNMC*

**Southwest Center for Occupational and Environmental Health  
Education and Research – Pilot Project**

Jun 2021 to Jul 2022

Contract: \$10,000

*PI: Benden*

*Musculoskeletal discomfort, physical activity, and workstation type: A follow-up study of traditional office workers after long-term remote work*

**T3 Intramural Grant TAMU**

Mar 2021 to Dec 2022

Contract: \$30,000

*Co- PI: Benden*

*Autonomous Vehicles for the Elderly*

**Clapp & Lauinger LLP**

Mar 2018 to May 2019

Contract: \$225,000

*PI: Benden*

*Research on Suitable Seating for Clerks in California*

**T3 Intramural Grant TAMU**

Mar 2019 to Dec 2020

Contract: \$30,000

*PI: Benden*

*Opioid Detection Software and Hardware*

**BP**

Mar 2019 to Dec 2020

Contract: \$11,000

*PI: Benden*

*Computer Workstation Remote Worker Study*

**Varidesk, Inc.**

Mar 2018 to Feb 2021

Contract: \$75,000

*PI: Benden*

*Sit-Stand Desk Utilization Research*

**TAMU Research Development Fund**

Apr 2017 to present

Intramural Funding: \$1,200,000

*PI: Palma; Role: Co - PI*

*Integrating Biometric Responses to Human Behavior*

<p><b>NIOSH - CDC</b>  <b>Occupational Safety and Health Training Center</b>          NIOSH Grant: \$750,000  <i>PI: Benden</i></p>	<p>Mar 2018 to Dec 2023</p>
<p><b>TAMU Center for Remote Health and Systems Technology</b>          Contract: \$10,000,000  <i>PI: Cote; Role: Co-I Education Thrust for 3+2 BSE/MPH Occ          NSF ERC PATHS-UP</i></p>	<p>Aug 2017 to Aug 2022</p>
<p><b>TAMU Health Science Center</b>  <b>Occupational Health &amp; Safety Program</b>          NIOSH Grant: \$400,000  <i>PI: Benden</i></p>	<p>Jul 2014 to Dec 2017</p>
<p><b>ODOT</b>          Contract: \$65,000  <i>PI: Pickens; Role: Co-PI          Ergonomic Evaluation of Ohio Department of Transportation Maintenance Workers</i></p>	<p>Sep 2016 to Dec 2017</p>
<p><b>Varidesk, Inc.</b>          Contract: \$50,000  <i>PI: Benden          Gamification of Software Monitored Results to Increase the Usage of Sit-Stand Desks</i></p>	<p>Sep 2017 to Dec 2017</p>
<p><b>Office of Ergonomic Research</b>          Contract: \$35,000  <i>PI: Benden          Use of Sit-Stand Workstations: Does the Implementation of Behavioral Interventions          Increase the Usage of Sit-Stand Desks?</i></p>	<p>Jan 2016 to Dec 2017</p>
<p><b>Frito Lay</b>          Contract: \$5,000  <i>PI: Benden          Distribution Center Ergonomic Evaluation</i></p>	<p>Jan 2017 to May 2017</p>
<p><b>Virgi &amp; Associates</b>          Contract: \$20,000  <i>PI: Benden          Sit-Stand Checkout Clerks Evaluation</i></p>	<p>Jun 2017 to Aug 2017</p>
<p><b>Clapp &amp; Lauinger LLP</b>          Contract: \$25,000  <i>PI: Benden          Sit-Stand 3D Rendering and Biomechanical Review</i></p>	<p>Jun 2017 to Aug 2017</p>

<p><b>Haworth</b>  Contract: \$5,000  <i>PI: Benden</i>  <i>Expert Report on State of the Science in Sedentary Behavior</i></p>	<p>Feb 2017 to Aug 2018</p>
<p><b>CDC to Positive Motion</b>  Grant: In-Kind  <i>PI: Westbrook; Role: Subcontract PI</i>  <i>NIH Commercialization Accelerator Program Grant – Marketing Consultations</i></p>	<p>Sep 2017 to Sep 2018</p>
<p><b>Herman Miller</b>  Contract: \$65,000  <i>PI: Mehta; Role: Co-I</i>  <i>Cognitive ergonomics assessment of office furniture</i></p>	<p>Feb 2017 to Sep 2017</p>
<p><b>Holly Frontier</b>  Contract: \$35,000  <i>PI: Benden</i>  <i>Ergonomic assessment of Asphalt Refineries in New Mexico</i></p>	<p>Jan 2016 to Dec 2016</p>
<p><b>Johnson &amp; Johnson</b>  Contract: \$5,000  <i>PI: Benden</i>  <i>Ergonomics Buying Guide</i></p>	<p>Feb 2017 to Dec 2017</p>
<p><b>Linak</b>  Contract: \$25,000  <i>PI: Benden</i>  <i>Software Support for Ergonomic Sit-Stand Study</i></p>	<p>Jan 2016 to Sep 2016</p>
<p><b>TAMUS Chancellor’s Office</b>  Grant: \$25,000  <i>PI: Benden</i>  <i>Oil &amp; Water Sourcing</i></p>	<p>Feb 2017 to Aug 2017</p>
<p><b>CDC to Positive Motion</b>  Grant: \$1,000,000  <i>PI: Westbrook; Role: Subcontract PI</i>  <i>Development of a Stand-Biased School Desk to Reduce Childhood Obesity</i></p>	<p>Sep 2013 to Sep 2016</p>
<p><b>ExxonMobil</b>  Contract: \$25,000  <i>PI: Benden</i>  <i>Cataloging Modern Office Jobs via ACGIH, TLV-HAL Ratings</i></p>	<p>Apr 2013 to Apr 2014</p>

<p><b>NIH – Eunice Kennedy Shriver National Institute of Child Health &amp; Human Development</b>  Grant: \$400,000  <i>PI: Benden</i>  <i>Brazos Partnership for Childhood Obesity Research</i></p>	<p>Jan 2012 to Dec 2012</p>
<p><b>CDC to Positive Motion</b>  Grant: \$150,000  <i>PI: Wilke; Role: Subcontract PI</i>  <i>Development of a Stand-Biased School Desk to Reduce Childhood Obesity</i></p>	<p>Sep 2011 to Sep 2012</p>
<p><b>Texas Transportation Institute  University Transportation Center for Mobility</b>  Grant: \$105,000  <i>PI: Benden</i>  <i>Teen Driver Cell Phone Blocker</i></p>	<p>Jan 2010 to May 2011</p>
<p><b>United Way Brazos Valley</b>  Grant: \$5,000  <i>PI: Benden</i>  <i>Sit-Stand Classroom Project</i></p>	<p>Jun 2009 to May 2010</p>
<p><b>TAMU Health Science Center  Occupational Health &amp; Safety Program</b>  NIOSH Grant: \$400,000  <i>PI: Congleton; Role: CO-I</i></p>	<p>Jun 2010 to Jul 2014</p>
<p><b>DHHS CDC – National Center for Chronic Disease  Prevention and Health Promotion Prevention Research Center  For Community Health Development</b>  Grant: \$5,000  <i>PI: McLeroy; Role: PI</i>  <i>Investigational pilot grant on Ambicycle development and use</i></p>	<p>Feb 2009 to Sep 2009</p>

## Publications

### Peer Reviewed Journal Publications

56. Olokunlade, Temitope; Benden, Mark E.; Han, Gang; Sherman, Ledric; Oloruntoba, Oluyomi; Jessa, Igwesiri; Igbo, Author; Nwadije, Johncross; Mustapha, Toriq; Nwifo, Adaeze; Ogunbamowo, Adetoun; and Smith, Matthew L. (2024) "Fall-Related Risk Factors among Older Men: A Scoping Review," Health Behavior Research: Vol. 7: No. 4. <https://doi.org/10.4148/2572-1836.1264>

55. Zhu, Tingyu, Lan Xue, Carmen Tekwe, Keith Diaz, Mark Benden, and Roger Zoh. "Clustering Functional Data With Measurement Errors: A Simulation-Based Approach." *Statistics in Medicine* (2024) <https://doi.org/10.1002/sim.10238>
54. K.L. Wasserstein, M.L. Shah-Hartman, W. Gavin Luzier, E.W. Schaefer, M.E. Benden, D.L. Sekhar, Parent and child opinion on the use of standing desks in the classroom, *Preventive Medicine Reports* (2024), doi: <https://doi.org/10.1016/j.pmedr.2024.102875>
53. Junho Park, Maryam Zahabi, He Huang, Mark Benden, A novel approach for predicting usability of upper limb prostheses, *Applied Ergonomics*, Volume 120, 2024, 104344, ISSN 0003-6870, <https://doi.org/10.1016/j.apergo.2024.104344>
52. Lynn Salzar ,Tricia; Aguilar ,Kaysey N.; Smith ,Matthew Lee; Pickens ,Adam; Han, Gang; Anderson ,Grace; Benden ,Mark E.(2024) Stand-Capable Workstations Reduce Occupational Sedentary Time Among Administrative Workers doi: 10.1080/24725838.2024.2362720; IISE Transactions on Occupational Ergonomics and Human Factors; <https://doi.org/10.1080/24725838.2024.2362720>
51. Honvoh Gilson D. , Zoh Roger S. , Gupta Anand , **Benden Mark E.** , Tekwe Carmen D. Modeling approaches for assessing device-based measures of energy expenditure in school-based studies of body weight status, *Frontiers in Applied Mathematics and Statistics*, Vol.10, 2024 <https://www.frontiersin.org/journals/applied-mathematics-and-statistics/articles/10.3389/fams.2024.1399426> DOI=10.3389/fams.2024.1399426 ISSN=2297-4687
50. Kaysey N. Aguilar, Matthew Lee Smith, Stephanie C. Payne, Hongwei Zhao, **Mark Benden**, Digital human ergonomics training for remote office workers: Comparing a novel method to a traditional online format, *Applied Ergonomics*, Volume 117,2024, 104239,ISSN 0003-6870,<https://doi.org/10.1016/j.apergo.2024.104239>.
49. Junho Park, Maryam Zahabi, Xi Zheng, Marcia Ory, **Mark Benden**, Anthony D. McDonald & Wei Li (2024) Automated vehicles for older adults with cognitive impairment: a survey study, *Ergonomics*, 67(6), 831-848. DOI: [10.1080/00140139.2024.2302020](https://doi.org/10.1080/00140139.2024.2302020)
48. Roh T, Esomonu C, Hendricks J, Aggarwal A, Hasan NT, **Benden M.** (2023) Examining workweek variations in computer usage patterns: An application of ergonomic monitoring software. *PLOS ONE* 18(7): 287976. <https://doi.org/10.1371/journal.pone.0287976>
47. Junho Park, Maryam Zahabi, Skylar Blanchard, Xi Zheng, Marcia Ory, **Mark Benden**, A novel autonomous vehicle interface for older adults with cognitive impairment, *Applied Ergonomics*, Volume 113, 2023, 104080, ISSN 0003-6870,

<https://doi.org/10.1016/j.apergo.2023.104080>

46. Kesiena O, Atarere J, **Benden M**. The impact of multiple regions of pain and work-life balance among healthcare workers. *Work*. 2023;75(1):357-362. doi: 10.3233/WOR-211239. PMID: 36591670.

45. Matthew Smith, Chung Lin Kew, Caroline Bergeron, Martha Parker, Oluyomi Oloruntoba, Kaysey Aguilar, Mark Benden, Ashley Merianos, CORRELATES OF JOB SATISFACTION AMONG FULL-TIME EMPLOYED OLDER ADULTS WITH CHRONIC CONDITIONS, *Innovation in Aging*, Volume 6, Issue Supplement\_1, November 2022, Page 680, <https://doi.org/10.1093/geroni/igac059.2500>

44. Sarnosky K, **Benden M**, Sansom G, Cizmas L, Regan AK. Impact of workplace displacement during a natural disaster on computer performance metrics: A 2-year interrupted time series analysis. *Work*. 2022;71(2):465-470. doi: 10.3233/WOR 210707. PMID: 35095008; PMCID: PMC8925109.

43. **Benden, M.**, Mehta, R., Pickens, A. *et al.* Health-related consequences of the type and utilization rates of electronic devices by college students. *BMC Public Health* 21, 1970 (2021). <https://doi.org/10.1186/s12889-021-11975-3>; <https://rdcu.be/cA5Sp>

42. William D. Johnson, S. Camille Peres, **Mark E. Benden**, Ranjana K. Mehta, Adam Pickens, Matthew Lee Smith, Noelle Sweany, Mallory A. Johnson, Lingual and non-lingual safety training methodology effectiveness: Does language of origin impact effectiveness, *International Journal of Industrial Ergonomics*, Volume 86, 2021, 103183, ISSN 0169-8141,

41. Kesiena O, Ajayi KV, Rene A, **Benden M**. Sociodemographic and work-related predictors of chronic lower back pain in the United States: the 2018 National Health Interview Survey data. *Public Health*. 2021 Aug 1;198:30-34. doi: 10.1016/j.puhe.2021.06.015. Epub ahead of print. PMID: 34348193.

40. Sarnosky, K., **Benden, M.**, Cizmas, L., Regan, A., & Sansom, G. "Remote Work and the Environment: Exploratory Analysis of Indoor Air Quality of Commercial Offices and the Home Office." *International Journal of Env. Mon. and Analysis*. (2021) ISSN Print: 2328-7659

39. Juha Baek , Bitu A. Kash , Xiaohui Xu , **Mark Benden** , Jon Roberts & Genny Carrillo (2020): Pediatric asthma hospitalization: individual and environmental characteristics of high utilizers in South Texas, *Journal of Asthma*, DOI: 10.1080/02770903.2020.1827424

38. Goodrich, K., **Benden, M.**, Munch, J. and Wamwara, W. (2020), "Will college students take a stand? Effects of health orientations on purchase decision factors for

standing desks", *Journal of Product & Brand Management*, Vol. 30 No. 7, pp. 949-963. <https://doi.org/10.1108/JPBM-07-2019-2481>

37. Baek, J.; Kash, B.A.; Xu, X.; **Benden, M.**; Roberts, J.; Carrillo, G. Effect of Ambient Air Pollution on Hospital Readmissions among the Pediatric Asthma Patient Population in South Texas: A Case-Crossover Study. *Int. J. Environ. Res. Public Health* **2020**, *17*, 4846.

36. Baek, J.; Kash, B.A.; Xu, X.; **Benden, M.**; Roberts, J.; Carrillo, G. Association between Ambient Air Pollution and Hospital Length of Stay among Children with Asthma in South Texas. *Int. J. Environ. Res. Public Health* **2020**, *17*, 3812

35. Rhee, J., & **Benden, M. E.** (2020). Stand-Biased Desk Intervention on Sleep Quality of High School Students: A Pilot Study Using Tri-Axial Accelerometry. *International Journal of Environmental Research and Public Health*, *17*(1), 37.

<https://doi.org/10.3390/ijerph17010037>

34. Sharma, P. P., Mehta, R. K., Pickens, A., Han, G., & **Benden, M. E.** (2019). Smart Software Can Increase Sit-Stand Desk Transitions During Active Computer Use. *International Journal of Environmental Research and Public Health*, *16*(13), 2638.

<https://doi.org/10.3390/ijerph16132438>

33. Tekwe, C. D., Zoh, R., Yang, M., Carroll, R., Honvoh, G., Allison, D., **Benden, M. E.**, & Xue, L. (2019). Instrumental variable approach to estimating the scalar-on-function regression model with measurement error with application to energy expenditure assessment in childhood obesity. *Statistics in Medicine*, *38*(20), 3764-3781.

<https://doi.org/10.1002/sim.8179>

32. Garrett, G., Zhao, H., Pickens, A., Mehta, R., Preston, L., Powell, A., & **Benden, M. E.** (2019). Computer-based Prompt's impact on postural variability and sit-stand desk usage behavior; a cluster randomized control trial. *Applied Ergonomics*, *79*, 17-24.

<https://doi.org/10.1016/j.apergo.2019.04.003>.

31. Shortz, A., Mehta, R., Peres, S. C., **Benden, M. E.**, & Zheng, Q. (2019). Development of the Fatigue Risk Assessment and Management in High-Risk Environments (FRAME) Survey: A Participatory Approach. *International Journal of Environmental Research and Public Health*, *16*(4), 522.

<https://doi.org/10.3390/ijerph16040522>

30. Sharma, P., **Benden, M. E.**, Mehta, R. K., Pickens, A., & Han, G. (2018). A Quantitative Evaluation of Electric Sit-Stand Desk Usage: 3-Month *In-Situ* Workplace Study. *ISSE Transactions on Occupational Ergonomics and Human Factors*, *6*(2), 76-83.

<https://doi.org/10.1080/24725838.2018.1521351>

29. Sharma, P., Mehta, R. K., Pickens, A., Han, G., & **Benden, M. E.** (2018). Sit-Stand Desk Software Can Now Monitor and Prompt Office Workers to Change Health

- Behaviors. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, 61(5), 816-824. <https://doi.org/10.1177/0018720818807043>
28. Towne, S. D. Jr., Li, Y., Lee, S., Smith, M. L., Han, G., Quinn, C., Du, Y., **Benden, M. E.**, & Ory, M. G. (2018). Physical activity and associated medical cost savings among at-risk older adults participating a community-based health & wellness program. *PLOS One*. <https://doi.org/10.1371/journal.pone.0198239>
27. Towne, S. D. Jr., Ory, M. G., Smith, M. L., Peres, S. C., Pickens, A., Mehta, R., & **Benden, M. E.** (2017). Accessing physical activity among young adults attending a university: the role of sex, race/ethnicity, technology use, and sleep. *BMC Public Health*, 17, 721. <https://doi.org/10.1186/s12889-017-4757-y>
26. Osofundiya, O., **Benden, M. E.**, Dowdy, D., & Mehta, R. K. (2016). Obesity-specific neural cost of maintaining gait performance under complex conditions in community-dwelling older adults. *Clinical Biomechanics*, 35, 42-48. <https://doi.org/10.1016/j.clinbiomech.2016.03.011>
25. Wendel, M., **Benden, M. E.**, Zhao, H., & Jeffery, C. (2016). Stand-Biased Versus Seated Classrooms and Childhood Obesity: A Randomized Experiment in Texas. *American Journal of Public Health*, 106(10), 1849-1854. <https://doi.org/10.2105/AJPH.2016.303323>
24. Miller, K. E., **Benden, M. E.**, Shipp, E. M., Pickens, A., Wendel, M. L., Pronovost, P. J., & Watts, B. V. (2016). Predicting violent behavior in clinical settings: a case-control study of a mental health inpatient unit. *Journal of Healthcare Protection Management*, 32(1), 106-119. <https://www.ncbi.nlm.nih.gov/pubmed/26978965>
23. Marsalia, A. C., Ferris, T. K., **Benden, M. E.**, & Zheng, Q. (2015). Evaluation of Vibrotactile Warning Systems for Supporting Hazard Awareness and Safety of Distracted Pedestrians. *IIE Transactions on Occupational Ergonomics and Human Factors*, 4(4), 222-235. <https://doi.org/10.1080/21577323.2016.1214767>
22. Pickens, A., **Benden, M. E.**, Schneider, D. E., & Zhao, H. (2016). Use of Stand-Biased Desks to Reduce Sedentary Time in High School Students: A Pilot Study. *International Journal of Child Health and Nutrition*, 5, 75-78. <http://dx.doi.org/10.6000/1929-4247.2016.05.02.4>
21. Garrett, G., **Benden, M. E.**, Mehta, R., Pickens, A., Peres, C. S., & Zhao, H. (2016). Call Center Productivity Over 6 Months Following Standing Desk Intervention. *IIE Transactions on Occupational Ergonomics and Human Factors*, 4(2-3), 188-195. <https://doi.org/10.1080/21577323.2016.1183534>
20. Mehta, R. K., Shortz, A. E., & **Benden, M. E.** (2018). Standing Up for Learning: A Pilot Investigation on the Neurocognitive Benefits of Stand-Biased School Desks.

*International Journal of Environmental Research and Public Health*, 15(3), 532.  
<https://doi.org/10.3390/ijerph15030532>

19. Hinckson, E., Salmon, J., **Benden, M. E.**, Clemes, S. A., Sudholz, B., Barber, S. E., Aminian, S., & Ridgers N. D. (2016). Standing Classrooms: Research and Lessons Learned from Around the World. *Sports Medicine*, 46, 977-987.  
<https://doi.org/10.1007/s40279-015-0436-2>

18. Pickens, A. W., Kress, M. M., **Benden, M. E.**, Zhao, H., Wendel, M., & Congleton, J. J. (2016). Stand-capable desk use in a call center: a six-month follow-up pilot study *Public Health*, 135, 131-134. <https://doi.org/10.1016/j.puhe.2015.10.024>

17. Bellingar, T. A., & **Benden, M. E.** (2015). New ANSI/BIFMA Standard for Testing of Educational Seating. *Ergonomics in Design: The Quarterly of Human Factors Applications*, 23(2), 23-27. <https://doi.org/10.1177/1064804613513899>

16. Dornhecker, M., Blake, J. J., **Benden, M. E.**, Zhao, H., & Wendel, M. (2015) The Effect of Stand-biased Desks on Academic Engagement: An Exploratory Study. *International Journal of Health Promotion and Education*, 53(5), 271-280.  
<https://doi.org/10.1080/14635240.2015.1029641>

15. Paterson, C., Miller, K., **Benden, M. E.**, Shipp, E., Pickens, A., Wendel, M., & Pronovost, P. (2014). The Safe Day Call: Reducing Silos in Health Care Through Frontline Risk Assessment. *The Joint Commission Journal on Quality and Patient Safety*, 40(10), 476-480. [https://doi.org/10.1016/S1553-7250\(14\)40061-8](https://doi.org/10.1016/S1553-7250(14)40061-8)

14. **Benden, M.**, Zhao, H.; Jeffrey, C.E.; Wendel, M.L.; Blake, J.J. The Evaluation of the Impact of a Stand-Biased Desk on Energy Expenditure and Physical Activity for Elementary School Students. *Int. J. Environ. Res. Public Health* 2014, 11, 9361-9375.

13. **Benden, M. E.**, Pickens, A., Shipp, E., Perry, J., & Schneider, D. (2013). Evaluating a school based childhood obesity intervention for posture and comfort. *Health*, 5(8), 54-60. <http://dx.doi.org/10.4236/health.2013.58A3008>

12. **Benden, M. E.**, Smith, M. L., Henry, M., & Congleton, J. J. (2012). Reviewing Four Decades of Cell Phone Use while Driving Literature (1970-2010): An Emphasis on Texting Behaviors, Parental Perceptions, and Methods of Control. *Journal of Health Behavior and Public Health*, 2(2), 20-26.

<http://www.scopus.com/inward/record.url?eid=2-s2.0-84864821820&partnerID=MN8TOARS>

11. Miller, K., **Benden, M. E.**, Pickens, A., Shipp, E., & Zheng, Q. (2012). Ergonomics principles associated with laparoscopic surgeon injury/illness. *The Journal of the Human Factors and Ergonomics Society*, 54(6), 1087-1092.

<https://doi.org/10.1177/0018720812451046>

10. **Benden, M. E.**, Wendel, M. L., Jeffery, C. E., Zhao, H., & Morales, M. L. (2012). Within-Subjects Analysis of the Effects of a Stand-Biased Classroom Intervention on Energy Expenditure. *Journal of Exercise Physiology*, 15(2), 9-19
9. **Benden, M. E.**, Miller, K., Wilke, E., & Ibarra, E. (2012). A New Method for Selecting the Best Design. *Ergonomics in Design: The Quarterly of Human Factors Applications*, 20(1), 11-17. <https://doi.org/10.1177/1064804611428927>
8. Dickerson, J. B., Smith, M. L., **Benden, M. E.**, & Ory, M. G. (2011). The association of physical activity, sedentary behaviors, and body mass index classification in a cross-sectional analysis: are the effect homogenous? *BMC Public Health*, 11, 926. <https://doi.org/10.1186/1471-2458-11-926>
7. Smith, M. L., **Benden, M. E.**, & Lee, C. (2011). Promoting active communities in a culture of distracted driving. *Preventing Chronic Disease*, 9. <http://dx.doi.org/10.5888/pcd9.110212>
6. **Benden, M. E.**, Mancuso, L., Zhao, H., & Pickens, A. (2011). The Ability of the SenseWear® Armband to Assess a Change in Energy Expenditure in Children While Sitting and Standing. *Journal of Exercise Physiology online*, 14(3). <http://www.scopus.com/inward/record.url?eid=2-s2.0-79960771946&partnerID=MN8TOARS>
5. Blake, J., **Benden, M. E.**, & Wendel, M. (2012). Using Stand/Sit Workstations in Classrooms: Lessons Learned From a Pilot Study in Texas. *Journal of Public Health Management and Practice*, 18(5), 412-415. <https://doi.org/10.1097/phh.0b013e3182215048>
4. **Benden, M. E.**, Congleton, J. J., & Fink, R. (2011). An In Situ Study of the Habits of Users That Affect Office Chair Design and Testing. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, 53(1), 38-49. <https://doi.org/10.1177/0018720810396506>
3. **Benden, M. E.**, Blake, J. J., Wendel, M. L., & Huber, J. C. Jr. (2011). The Impact of Stand-Biased Desks in Classrooms on Calorie Expenditure in Children. *American Journal of Public Health*, 101(8), 1433-1436. <https://doi.org/10.2105/AJPH.2010.300072>
2. **Benden, M. E.**, & Pickens, A. (2009). Evaluation day: measuring office ergonomics training can show impact. *Industrial Engineer*, 41(9).
1. **Benden, M. E.** (1994). Creating the Painless Inspection Station: Reduction in cumulative trauma disorders. *Ergonomics in Design: The Quarterly of Human Factors Applications*, 2(3), 22-29. <https://doi.org/10.1177/106480469400200306>

## **Published Data Sets**

Salzar, Tricia; Anderson, Grace; Smith, Matthew; Pickens, Adam; Han, Gang; Benden, Mark (2022): HSC Complete Dataset. figshare. Dataset.  
<https://urldefense.com/v3/https://doi.org/10.6084/m9.figshare.19911547.v1> ;!!Kw  
NVnqRv!HGLZMOGQrGBQlSwrw9CFqMfIR8aoIOOfx03Q9YNXkF5vi8AO  
6B2fJv5WceYWImFfKXBzDvcacYro103JoKQ7-HCXnUY\$

Salzar, Tricia; Benden, Mark (2020): OES\_RSI Dataset. figshare. Dataset.  
<https://urldefense.com/v3/https://doi.org/10.6084/m9.figshare.12753545.v1> ;!!Kw  
NVnqRv!HGLZMOGQrGBQlSwrw9CFqMfIR8aoIOOfx03Q9YNXkF5vi8AO  
6B2fJv5WceYWImFfKXBzDvcacYro103JoKQ7eDysD\_US

## **Books & Book Chapters**

**Benden, M. E.**, & Smith, M. L. (2020). Student drop-off/pickup safety. In D.C. Wiley & A. C. Cory (Eds.), *Encyclopedia of School Health*. Sage Publications, Inc.

**Benden, M. E.** (2008). *Could You Stand to Lose? Weight Loss Secrets for Office Workers* (2<sup>nd</sup> ed.). Trinity River Publishing

**Benden, M. E.** *Could You Stand to Lose? Weight Loss Secrets for Office Workers* (1<sup>st</sup> ed.). Trinity River Publishing

**Benden, M. E.** (2001). Use of Three-Dimensional Fabric Yields Ergonomics Benefits in Upholstery Work. In D. Alexander & R. Rouborn (Eds.) *Applied Ergonomics* (pp. 326-332). CRC Press.

**Benden, M.**, & Smith, M.L. (2013). Student drop-off/pick-up safety. In Wiley, D. C. & Cory, A.C. (Ed). *Encyclopedia of School Health*. Sage Publications: Thousand Oaks, CA. ISBN: 9781461459989

## **Published Technical Reports**

Finley, M. D., Theiss, L., Ulman, G. L., Pickens, A., **Benden, M.**, & Jenkins, J. (2017). *Evaluation of Safety Practices for Short Duration Work Zones* (State Job Number 135201, Final Report). The Ohio Department of Transportation, Office of Statewide Planning & Research. <https://ohiomemory.org/digital/collection/p267401ccp2/id/15346>

**Benden, M.**, Fink, R., & Stafford, J. (2012). *Teen Driver Cell Phone Blocker* (Final Report; UTCM Project #10-15-47). Texas Transportation Institute, University Transportation Center for Mobility, Research and Innovative Technology Administration Department of Transportation.  
[https://utcm.tti.tamu.edu/publications/final\\_reports/Benden\\_10-15-47.pdf](https://utcm.tti.tamu.edu/publications/final_reports/Benden_10-15-47.pdf)

## *Selected Conference Papers*

Chung, W., Kew, C. L., Bergeron, C., Parker, M., Oloruntoba, O., Aguilar, K., Benden, M., & Merianos, A. (2022). EXPLORING ADJUSTMENT TO RETIREMENT: LEISURE IN THE LIVES OF FIRST-GENERATION KOREAN IMMIGRANT MEN. *INNOVATION IN AGING*. 6, 680-681.

Towne, S., Li, Y., Lee, S., Smith, S., Han, G., Du, Y., **Benden, M.**, & Ory, M. (2018) Changes in Physical Activity Associated with a Novel Health and Wellness Program for At-Risk Older Individuals, *Innovation in Aging*, 2(1), 739.  
<https://doi.org/10.1093/geroni/igy023.2726>

**Benden, M.**, Mehta, R., & Shortz, A. (2018, Jun 3-6) *A three year randomized controlled trial of a standing desk intervention in a high school of 450 students to evaluate the impact on sedentary behavior, cognition and test scores* [Conference session]. International Society of Behavioral Nutrition and Physical Activity Annual Meeting, Hong Kong, China.  
<https://www.isbnpa.org/files/articles/2018/07/04/102/attachments/5b3d0ebde1d22.pdf>

**Benden, M.** (2018, Jun 3-6) *1-year RCT of Sedentary Behavior with Computer based monitoring and prompting* [Conference session]. International Society of Behavioral Nutrition and Physical Activity Annual Meeting, Hong Kong, China.  
<https://www.isbnpa.org/files/articles/2018/07/04/102/attachments/5b3d0ebde1d22.pdf>

**Benden, M.**, Zhao, H., & Schneider, D. (2015, Jun 3-6) *A 2-year evaluation of a high school standing desk intervention to reduce sedentary behavior in US children* [Conference session]. International Society of Behavioral Nutrition and Physical Activity Annual Meeting, Edinburgh, Scotland, 2015.  
[https://www.isbnpa.org/files/annual\\_meetings/2015/06/10/16/attachments/557869344fefe.pdf](https://www.isbnpa.org/files/annual_meetings/2015/06/10/16/attachments/557869344fefe.pdf)

Pickens, A. W., & Benden, M. E. (2013). Curriculum Development for HF/E Graduate Students. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting, Proceedings of the Human Factors and Ergonomics Society*. 57(1), 452-456

**Benden, M.**, Congleton, J.J. (2007, Mar 13) *Chair Specifications and Testing for Big & Tall Seating* [Conference session]. Tenth Annual Applied Ergonomics Conference.

**Benden, M.** (2003, Oct 15-18) *Use of Three Dimensional, Knitted Fabric Yields Ergonomic Benefits in Upholstery Work – A Two Year Follow Up Study* [Conference session]. Annual Association of Canadian Ergonomist's Conference, Toronto, Canada.

**Benden, M.** (2003, Mar) *The Patent Process for Ergonomic Products* [Conference session]. Annual Applied Ergonomics Conference, Dallas, TX, USA.

## Patents

### U.S. Patents

**Benden, M.**, “Ergonomic Footrest Apparatus for a Chair,” United States Patent, No. 6142571.

**Benden, M.**, Boenigk, R.C., Belt, K.A., Ebner, D.W., “Lumbar Pump Assembly for a Chair,” United States Patent, No. 6220663.

Congleton, J.J., Boenigk, R.C., Boenigk, B.A., **Benden, M.**, “Ergonomic Armrest Assembly,” United States Patent, No. 6296312.

**Benden, M.**, Smithey, N.M., “Air Pump Assembly for a Chair,” United States Patent, No. 6290295.

**Benden, M.**, Smithey, N.M., “Onboard Instruction Guide,” United States Patent, No. D458777S.

**Benden, M.**, Smithey, N.M., “Computer Accessories and Mouse Deck,” United States Patent, No. D463441S.

**Benden, M.**, Congleton, J.J., Smithey, N.M., “Support Apparatus for a Chair and Keyboard,” United States Patent, No. 6604786.

**Benden, M.**, “Improved footrest for a Chair – Fring™,” United States Patent, No. 6607246.

Congleton, J.J., **Benden, M.**, Boenigk, R.C., Guillen, J.C., “Support for a Seating Device – Abstool™,” United States Patent, No. 6877812.

**Benden, M.**, Smith, C.A., Congleton, J.J., Johnson, L., “Support Assembly for a Seating Device – NeXtep™,” United States Patent, No. 7036886.

**Benden, M.**, Congleton, J.J., Smitih, C.A., “Vertical Adjustment Apparatus for a Keyboard – StandUp™,” United States Patent, No. 7048236.

Congleton, J.J., **Benden, M.**, Boenigk, R.C., Guillen, J.C., “Support for a Seating Device – AbStool™, Dual Use, 4 positions,” United States Patent, No. 7104606.

**Benden, M.,** Chapman, A.K., Sanchez, M.R., “Seating Device – Balance™ Chair Ergo,” United States Patent, No. D541061.

**Benden, M.,** Chapman, A.K., Sanchez, M.R., “Support for a Seating Device – Balance™ Conference,” United States Patent, No. D543038.

**Benden, M.,** Smith, C.A., “Nposition Footrest for Ntune Seating System,” United States Patent, No. D557513.

**Benden, M.,** Chapman, A.K., Smithey, N.M., “Elemental Aluminum Keyboard Tray,” United States Patent, No. D588145.

**Benden, M.,** “Student Desk with Stool,” United States Patent, No. D649369.

**Benden, M.,** “Student Desk with Seat,” United States Patent, No. D649368.

**Benden, M.,** Wilke, E., “Lightweight Transportation Device,” United States Patent, No. 8303011.

**Benden, M.,** “Versatile Student Desk,” United States Patent, No. 9254037.

**Benden, M.,** “Adjustable Footrest for Adjustable-Height Desk,” United States Patent, No. 9961990.

**Benden; Mark E.,** “Adjustable Height Desk having a Deployable Floor Mat,” United States Patent, No. 10426260

**Benden; Mark E.,** “Adjustable Height Desk having a Deployable Floor Mat,” United States Patent, No. 11,006,744 B2

As of **Jul. 1, 2024**, four additional US patent applications were pending

### **International Patents:**

**Benden, M.,** Smith, C.A., Congleton, J.J., Johnson, L., “Support for a Seating Device,” CA 2505225.

**Benden, M.,** Smith, C. A., Congleton, J.J., “Vertical Adjustment Apparatus for a Keyboard,” CA 2486459.

### **Disclosures to Texas A&M:**

**Benden, M.,** Wilke, E., “AmbiCycle – Novel Patient Transport,” TAMU 2830.

**Benden, M.,** Fink, R., “Child/Pet Present Sensing and Fail Safe Control System,” TAMU 2956.

**Benden, M.,** Fink, R., “Cell Phone Interruption Device,” TAMU 2957.

**Benden, M.,** Pickens, A., Hamid, K., “Surgical Exoskeleton Support Device,” TAMU 2949.

**Benden, M.,** Miller, K., Speer, B., “Low Force, Rapid Deployment Tool for Closure of QD Hose Valve,” TAMU 3014.

**Benden, M.,** “Ergonomic Holder for Tablet Reading and Computerized Devices,” TAMU 3172.

Burdine, J., **Benden, M.,** “Adult Walk or Sit,” TAMU 3230.

Burdine, J., **Benden, M.,** “Waterfall Pool Chlorinator,” TAMU 3271.

**Benden, M.,** “Stand-Biased Desk for Schools,” TAMU 3058.

**Benden, M.,** “Young Adult, Stand-Biased School Desk,” TAMU 3399.

**Benden, M.,** “Height Adjustable Desk with Integrated, Automatically Deployable Footrest and Privacy Screen for Sitting and Standing Positions,” TAMU 3468.

**Benden, M.** “Adjustable Height Desk Having a Deployable Floor Mat TAMU 4533

**Benden, M.,** Aguilar K., Jebson, L.; Digital Human-Work Force Solution for Healthcare Clinical Practices TAMU 6171HSC23

**Benden, M.,** Jarman, J.; “Deployable Backrest, footrail and Anti-fatigue mat ergonomic office stool, TAMU 13260-P274V1

**Benden, M.,** Rhee, J., “Passive Biometric Sensor for Computer Users via Keyboard and Peripheral Input Device Monitoring,” TAMU 5224

## Presentations and Invited Lectures

### Keynote Addresses

**Benden, M.** (2019, August). *The Wedge Formation for Entrepreneurs* [Keynote address]. McFerrin Center Entrepreneurship Bootcamp for Veterans, College Station, TX, USA.

**Benden, M.** (2019, August). *Sedentary Behavior and Air Quality of Home Office Workers* [Keynote address] Office Relief Summer Lecture Series, San Leandro, CA, USA.

**Benden, M.** (2017, March). *The State of the Science in Sedentary Behavior Research* [Keynote address]. Arizona State University Wellness Summit, Tempe, AZ, USA.

**Benden, M.** (2016, February). *Occupational Health Updates* [Keynote address]. ORCHSE Washington, D.C., USA.

**Benden, M.** (2014, October) Advances in Ergonomics Monitoring and Assessment, Puget Sound Ergonomic Roundtable

### **Invited Lectures and Featured Speeches**

**Benden, M.** (2019, August). *California Suitable Seating Case Law Experiences* [Featured speaker]. Sacramento Ergonomics Roundtable, Sacramento, CA, USA.

**Benden, M.** (2018, March). *State of the Science of Sedentary Behavior Research* [Featured speaker]. Applied Ergonomics Conference, Atlanta, GA, USA.

**Benden, M.** (2017, July). *Computer Prompts for Reducing Sedentary Behavior* [Invited lecture]. Ergo X of HFES, Tampa Bay, FL, USA.

**Benden, M.** (2017, January). *School PA Research* [Invited lecture]. Charter Schools Conference Washington, D.C., USA.

**Benden, M.** (2017, January). *Research Methods for Computer Tracking of Office Worker Behaviour* [Invited lecture]. OERC Marconi Conference, Galveston, TX, USA.

**Benden, M.** (2016, August). *Invited lecture*. Austin Ergonomic Round Table, Austin, TX, USA.

**Benden, M.** (2016, August). *Invited Lecture*. Sacramento Ergonomic Round Table, Sacramento, CA, USA.

**Benden, M.** (2016, August). *Invited Lecture*, Bay Area Ergonomic Round Table, San Francisco, CA.

**Benden, M.** (2016, May). *Invited Lecture*. AIHA Conference, Baltimore, MD, USA.

**Benden, M.** (2012, September). *Stand-biased Classrooms* [Invited lecture]. CDC, Atlanta, GA, USA.

**Benden, M.** (2010, March). *Ambicycle Development and Testing* [Invited lecture]. Applied Ergonomics Conference, San Antonio, TX, USA.

## **Presentation**

Oloruntoba, O., Parker, M. K., Maddock, J., Benden, M. E. Prevalence and correlates of musculoskeletal discomfort among remote office workers in the United States. Applied Ergonomics Conference. March 27- 30, 2023. New Orleans, LA.

Smith ML, Kew CL, Bergeron CD, Parker MK, Oloruntoba O, Aguilar K., Benden ME, Wilson, MG, Merianos, AL. Correlates of job satisfaction among full-time employed older adults with chronic conditions. Gerontological Society of America Annual Conference. November 2-6, 2022. Indianapolis, IN.

Sarnosky, K., Cizmas, L., & **Benden, M.** (2019, March) *Indoor Quality Impact on Ergonomics & Productivity in the Remote Work Force* [Paper presentation]. Applied Ergonomics Conference, New Orleans, LA, USA.

**Benden, M.** (2018, August) *One-year workplace interventions using software prompts to increase and sustain electric sit-stand desk utilization via objectively monitored desk utilization software* [Paper presentation]. International Ergonomics Association, Florence, Italy.

Sharma, P. & **Benden, M.** (2018, March) *6 Month Evaluation of Computer Prompts and Gamification of Sit/Stand Data* [Paper presentation]. Applied Ergonomics Conference, Atlanta, GA, USA.

Sharma, P., Owen, W. & **Benden, M.** (2017, March) *Sit-Stand Desks: Can We Increase Their Use with Computer Software?* [Paper presentation]. Applied Ergonomics Conference, Orlando, FL, USA.

Bridges, L. & **Benden, M.** (2017, March) *Remedy Interactive Study to Determine Musculoskeletal Issues from Desktop Software* [Paper presentation]. Applied Ergonomics Conference, Orlando, FL, USA.

Garrett, G., Mehta, R. & **Benden, M.** (2017, March) *Cognitive Benefits of Sit-Stand Desk Workstation* [Paper presentation]. Applied Ergonomics Conference, Orlando, FL, USA.

Garrett, G. & **Benden, M.** (2015, March 17th) *Thinking on your feet can be productive* [Paper presentation]. Applied Ergonomics Conference, Nashville, TN, USA.

Pickens, A. W. & **Benden, M.** (2013, September-October). *Curriculum Development for HF/E Graduate Students: Lessons Learned in an Ongoing Effort to Educate and Meet Industry Demands* [Paper presentation]. 57<sup>th</sup> HFES Conference, San Diego, CA, USA.

Kress, M. & **Benden, M.** (2013, March) *6-Month Follow-Up: Comparison of Sit-to-Stand and Stand-biased Desks in a Call Center* [Paper presentation]. Applied Ergonomics Conference, Orlando, FL, USA.

**Benden, M.,** Ekelund, E., Hinkley, T., & Hinkson, E. (2012, May) *A Behavioral Epidemiological Perspective on Sedentary Behavior in Children: Health, Measurement, Correlates, Interventions. & Advanced Measurement Methods for Sedentary Behavior in Children* [Paper presentation]. International Society of Behavioral Nutrition and Physical Activity, Austin, TX, USA.

Miller, K. & **Benden, M.** (2012, March) *Industry/University Collaborative* [Paper presentation]. Applied Ergonomics Conference, Nashville, TN, USA.

**Benden, M.** & Bosen, D. (2012, March) *Obesity in the Workplace: Changes and Solutions* [Paper presentation]. Mastertrack for Applied Ergonomics Conference, Nashville, TN, USA.

Smith, M.L., **Benden, M.,** Lindner, J. R., Cotton, C. P., Henry, M., Dickerson, J. B., & Congleton, J.J. (2012, March) *Perceptions of texting while driving among parents of teen drivers: Does terminology make a difference?* [Paper presentation]. Academy of Health Behavior Annual Conference, Austin, TX, USA.

**Benden, M.,** Morales, M., & Wendel, M. (2011, October-November) *Dynamic Classrooms Utilizing Stand-biased Desks to Reduce Childhood Obesity* [Paper presentation]. 139<sup>th</sup> APHA Annual Meeting in Washington, D.C., USA.

Morales, M., **Benden, M.,** & Jones, P. (2011, April) *Dynamic Classroom Environments to Reduce Childhood Obesity* [Paper presentation]. Regional HRES Conference, Houston, TX, USA.

**Benden, M.** (2000, April) *A new vehicle design for rural and urban patient transport* [Paper presentation]. UTCM Mobility Colloquium, College Station, TX, USA.

**Benden, M.** (2010, March) *A Case Study In The Design And Development of An Ergonomic Vehicle For The Transport of Rural Patients* [Paper presentation]. Applied Ergonomics Conference, Mar 2010.

**Benden, M.** (2009, April) *Stand to Lose* [Paper presentation]. Salud Y Seguridad Laboral, Panama.

**Benden, M.** (2009, April) *Industrial Ergonomics* [Paper presentation] Salud Y Seguridad Laboral, Panama.

**Benden, M.** (2009, March) *Stand-Biased Workstations for Control of Office Worker Obesity* [Paper presentation]. Applied Ergonomics Conference, Reno, NV, USA.

**Benden, M.** (2009, March). *Ergonomic Expert Roundtable Lecture – Occupational Obesity* [Paper presentation]. Applied Ergonomics Conference, Reno, NV, USA.

**Benden, M.** (2009, November). *Lean Patient Handling* [Paper presentation]. National Ergonomics Conference, Las Vegas, NV, USA.

**Benden, M.,** & Parker, M. K. (2000, March). *Benefits of Three Dimensional Knitted Fabric on Chair Manufacturing* [Paper presentation]. Applied Ergonomics Conference, Orlando, FL, USA.

### **Selected Poster Presentations**

Maddock, J.E., Chen, Y., Yeh, S.Y., Oloruntoba, O., & Benden, M. (2023). Nature contact and active living among remote workers. Poster presented at the Annual Active Living Conference, Bethesda, MD

Smith, M. L., Kew, C. L., Bergeron, C. D., Parker, M. K., Oloruntoba, O., Aguilar, K. N., **Benden, M. E.**, Wilson, M. G., & Merianos, A. L. (2022). Correlates of job satisfaction among full-time employed older adults with chronic conditions. Gerontological Society of America Annual Conference. November 2-6, 2022. Indianapolis, IN.

**Benden, M.** (2017, March). *Ergonomic Expert Roundtable Lecture – Occupational Obesity* [Poster presentation]. Applied Ergonomic Conference, Orlando FL

Smith, M. L., **Benden, M.**, Cotton, C. P., Henry, M., & Congleton, J. J. (2012, January). *Texting while driving behaviors and related influences: Parent-teen concordance from the parental perspective* [Poster presentation]. Annual International Conference on the Health Risks of Youth, San Juan, Puerto Rico.

**Benden, M.**, Wendel, M. L. & Smith, M. L. (2011, January). *Modifying classroom environments to reduce health risk among elementary students* [Poster presentation]. Annual International Conference on the Health Risks of Youth, Cancun, Mexico.

Congleton, J. J., Craig, B., **Benden, M.** & Parker, M. (2003, October). *Current and Future Office Ergonomic Trend* [Poster presentation]. 47<sup>th</sup> Annual Human Factors and Ergonomics Conference, Denver, CO, USA.

## Teaching Experience

Texas A&M University, College Station, TX 77843

July 2008 to Present

Environmental & Occupational Health Department

**Courses Taught:**

**PHEO 655** – Human Factors  
**PHEO 682** – System Safety  
**PHEO 679** – Upper Extremity  
Ergonomics  
**PHEO 678** – Low Back/Whole  
Body Ergonomics

**PHEO 681** – EOH Seminar  
**PHEO 680** – Capstone  
**PHEO 691/791** –  
Research/Doctoral Study  
**PHEO 685** – Directed Study  
**PHLT 445** – Senior Capstone

**Doctoral Students Advised/Mentored**

**Dr. Kristen Miller, DrPh**  
*Chair, graduated 2012*

*Committee member, graduated  
2018*

**Dr. Meghan Wernicke, DrPh**  
*Chair, graduated 2014*

**Dr. Dawn Dakuri, DrPh**  
*Committee member, graduated  
2020*

**Dr. Parag Sharma**  
*DrPh Chair, graduated 2018*

**Dr. William Johnson, DrPh**  
*Committee member, graduated  
2019*

**Dr. Greg Garrett, DrPh**  
*Chair, graduated 2019*

**Dr. Juha Baek, DrPh**  
*Committee member (graduated  
2020)*

**Dr. Kamrie Sarnosky, DrPh**  
*Chair, graduated 2019*

**Dr. Linda Bridges, DrPh**  
*Chair (2022)*

**Dr. Tricia Salazar, DrPh**  
*Chair, graduated 2020*

**Dr. Kaysey Aguilar, DrPh**  
*Chair (2022)*

**Dr. Paul Ritchey, DrPh**  
*Committee member, graduated  
2018*

**Ashley Shortz, DrPh**  
*Current committee member  
(expected graduation 2022)*

**Dr. NoYoung Yu, DrPh**  
*Committee member, graduated  
2018*

**Dr. Junho Park -PhD ISEN**  
*Committee member (2022)*

**Dr. Elizabeth Cuevas, PhD**  
BMES  
*Committee member, graduated  
2018*

**Lauren Williams - DrPh** *Current  
committee member (expected  
graduation 2024)*

**Dr. Trey Roady, PhD ISEN**

**Dr. Yibo Zhu, PhD ISEN**

*Committee member (2021)*

**Sloane Hoyle, DrPh**  
*Current committee member  
(expected graduation 2024)*

**Yu Zhou, PhD ISEN**  
*Current committee member  
(expected graduation 2023)*

**Whitney Mantooth, PhD ITDE**  
*Current chair (expected  
graduation 2024)*

**Yehee Park ISEN PhD**  
*Committee Member expected  
graduation 2025*

**Pronob Biswas PhD ITDE**  
*Current chair (expected  
graduation 2026)*

**Andrea Porter PhD ITDE**  
*Current Chair (expected  
graduation 2026)*

**Adam Neiss PhD ITDE chair**  
*(expected graduation 2025)*

**Dr. Vanessa Nasr PhD ISEN**  
*Committee member Dec 2024*

**Ashif Hossain ISEN PhD**  
*Committee Member expected  
graduation 2025*

### **Masters Students Advised**

**Vicki Torres, MSPH**  
*Committee member, 2010*

**John Smith, MSPH**  
*Committee member, 2010*

**Lexie Mancuso, MSPH**  
*Chair, 2010*

**McKenzie Henry, MSPH**  
*Chair, 2010*

**Kristin Miller, MSPH**  
*Chair, 2011*

**Megan Morales, MSPH**  
*Chair, 2011*

**Jase Perry, MSPH**  
*Chair, 2012*

**Angela Marsalia, MSPH**  
*Chair, 2013*

**Allison Schuelke, MSPH**  
*Chair, 2014*

**Drew Schneider, MSPH**  
*Chair, 2014*

**Gulberg Ergin, MS (ISEN)**  
*Co-chair, 2019*

**Gilson Honvoh, MSPH**  
*Committee member, 2017*

**Cullen Brown, MS (CPSC)**  
*Committee member, 2017*

**Jason Noriega, MS (STAT)**  
*Committee member, 2019*

**Rowland Ramos MS (ETID)**  
*Committee member, 2020*

**Ricardo Munoz Castillo MS**  
(ETID)Committee member, 2022

### **Student Awards**

#### **Applied Ergonomics Creativeness in Ergonomics Student Award**

Kaysey Aguilar, 2023  
Tricia Salazar, 2020  
Kamrie Sarnosky, 2019  
Ashley Shortz, 2018

Greg Garrett, 2015  
Meghan Wernicke, 2013  
James Stafford, 2012  
Kristen Miller, 2011

#### **Ergo Cup – Student Design Award**

Meghan Wernicke, Jeff Bauml, Katie Connell, Anthony Onowoku, 2011

## **Honors and Awards**

<b>National Academy of Inventors, Fellow</b>	2023
<b>Applied Ergonomics Conference &amp; Exposition, Conference Chair</b>	2023
<b>National Academy of Inventors, Senior Member</b>	2019
<b>Inc 5000 VET50 List, #35 for Stand2Learn</b>	2019
<b>Inc 5000 Company Honor, Stand2Learn, #567</b>	2018
<b>Innovation Award, Texas A&amp;M System</b>	2018
<b>Aggie 100, Stand2Learn, #5</b>	2018
<b>Delta Omega, Alpha Tau chapter, Public Health Honor Society</b>	2015
<b>EOH Teaching Award, Rural Public Health Student Association</b>	2013-14
<b>Gold Design Award at NeoCon, Guardian™ chair</b>	2013
<b>EOH Teaching Award, Rural Public Health Student Association</b>	2009-10
<b>Platinum ADEX Award, Elemental™ in Design Journal</b>	2008-09
<b>Top 10 Most Innovative Product Designer, <u>Healthcare Design Magazine</u></b>	2008
<b>NECE Attendees Choice Award, Ntune™ Seating System</b>	2007

<b>Editor's Top 100, <u>Buildings Magazine</u> for <i>Ntune</i><sup>TM</sup> Seating System</b>	2007
<b>NECE Attendees Choice Award, Pipette Arm<sup>TM</sup></b>	2006
<b>Platinum ADEX Award, NeXtep<sup>TM</sup> and Balance<sup>TM</sup> char in Design Journal</b>	2005-06
<b>NECE Attendees Choice Award, NeXtep<sup>TM</sup></b>	2005
<b>Platinum ADEX Award, AbStool<sup>TM</sup> and StandUp<sup>TM</sup> in <i>Design Journal</i></b>	2004-05
<b>NECE Attendees Choice Award, StandUp<sup>TM</sup></b>	2004
<b>NECE Attendees Choice Award, AbStool<sup>TM</sup></b>	2003
<b>IIDEX NeoCon Canada Bronze Award, Most Innovative Product</b>	2003
<b>U.S. Army Distinguished Military Graduate</b>	1990
<b>Distinguished Texas A&amp;M Engineering Student</b>	1988-89
<b>National Distinguished Military Student</b>	1988-89
<i>*Complete list of US Army awards and decorations are available separately</i>	
<b>American National Standard for Human Factors</b>	1988
<i>Member of the Canvass Committee for BSR/HREX 100</i>	

## Professional Affiliations

<b>The Texas A&amp;M Telehealth Institute</b> Founding Member	2023-Present
<b>Center for Remote Health Technologies &amp; Systems</b> <i>Member</i>	2013-Present
<b>Center for Population Health &amp; Aging</b> <i>Member</i>	2017-Present
<b>Center for Health Systems &amp; Design</b> <i>Member</i>	2017-Present
<b>Center for Community Health Development</b> <i>Member</i>	2008-Present

<b>Ergonomics Center</b> <i>Executive Director</i>	2015-Present
<b>Office of Ergonomic Research Center</b> <i>Industry partner</i>	1999-2001
<b>NSF Industry University Cooperative Research Center in Ergonomics</b> <i>Industry Partner</i>	1996-1998

## Professional Service

### *Committee Membership*

**TAMUS Council of Inventors**  
*Member 2023 – Present*

**Department PhD Committee**  
*Member, 2016-Present*

**Department Undergraduate Minor Committee**  
*Member, 2016-Present*

**TAMU Council of Principal Investigators**  
*Representative for SPH, 2018-2019*

**NEW CEPH Core Phase 2 Committee**  
*Representative for SPH, 2018-Present*

**SPH Research Committee**  
*Chair, 2012-2016 and 2018-Present*

**HSC Technology Commercialization Advisory Committee**  
*Chair, 2016-2017; Member, 2016-Present*

**TAMU System Intellectual Property Constituent Committee**  
*Chair, 2015-2016*

**TAMU 2030 Vision Committee**  
*Member, 2017-Present*

**TAMU 2030 Vision – Research Committee**  
*Chair, 2018-Present*

**TAMU Innovation School**

*Advisory board and founding member, 2016-Present*

**Applied Ergonomics Conference Presentations Program**

*Chair, 2015-2018*

**Applied Ergonomics Poster Program**

*Chair, 2018-Present*

**ANSI/HFES 100 Standards Committee**

*Member, 2016-2018*

**ANSI/BIFMA 5.1 Office Seating Standard Committee**

*Member, 2008-Present*

**ANSI/HFES 100 Caucus Voting Committee**

*Appointed member, 2019-Present*

**ANSI/BIFMA Student Furniture Standards Committee**

*Member, 2014-2016*

**BIFMA – G1 Ergonomic Furniture Standard Committee**

*Member, 2008-Present*

**BSR/BIFMA X10.1-202X Ergonomics Requirements for Furniture Designed for Computer Use – Voting member, 2019-Present**

**Stand2Learn, Inc.**

*CEO & Chairman of the Board, 2012-2018*

**AEC Conference**

*Abstract Reviewer, 2008-2015*

**StandUpKids.org**

*Advisory Board, 2015-Present*

**IISE**

*Member, 2000-Present*

**HFES**

*Member, 1992-Present*

**ASSP**

*Member, 1992-Present*

## ***Grant Reviews***

**NIOSH – ERC Review Panel**  
Washington D.C., Spring 2018

**NSF, S-STEM Review Panel**  
Washington D.C., Fall 2012

**NSF, S-STEM Review Panel**  
Washington D.C., Fall 2010

**NSF, S-STEM Review Panel**  
Washington D.C., Fall 2009

**NSF, S-STEM Review Panel**  
Washington D.C., Fall 2008

## ***International – External Dissertation Reviewer***

Aminian, S. (2016). *Sedentary Behavior in New Zealand Primary School Children*. [Doctoral Thesis, Auckland University of Technology].  
<https://pdfs.semanticscholar.org/a60a/68c8aa6e3309ab897999c8638f478961a4a9.pdf>

Contardo Ayala, A. M. (2019). *The influence of sitting and standing on young people's health*. [Doctoral Thesis, Deakin University]

## ***Contributions to Law in Patent Infringement and Occupational Health***

**Foley & Lardner LLP** Hydrow Inc, vs. iFit Health & Fitness Inc.(NordicTrack)  
2022 Patent Infringement Case regarding Rowing machines for fitness

**Dickinson Wright LLP** Sky Enterprises vs. Herman Miller Inc (2021)  
*Patent Infringement Case regarding Ergonomic Seating*

**McInerney Law**, Canela vs. Costco (2021)  
Expert witness for greeter and exit checker employees seeking suitable seating options per California wage orders. Including deposition & trial testimony

**Williams Hart Boundas Easterby, LLP**, Stacy Smith v Mansfield Montessori (2021) Consultant on occupational injury case involving an employee performing lifting tasks with children in a daycare environment

**Moss Bollinger, LLP**, Silvestro vs. Kaiser Pharmacy (2021)  
Expert witness for pharmacists and pharmacy tech employees seeking suitable seating options per California wage orders

**Clapp & Lauinger, LLP**, Eden Smiles vs. Walgreen Co (2018-2021)  
*Expert witness for the class action suit by cashiers seeking suitable seating options per California wage orders.*

**Garland, Samuel & Loeb, P.C.**, Clonts vs. Reddy (2020)  
*Elevator Shaft fall case*

**Boucher, LLP**, Northgate Market (2019)  
*Suitable seating case*

**Sanford A. Kassel, APLC**, Rodriguez vs. Walmart (2019)  
*Greeters & suitable seating case.*

**Clapp & Lauinger, LLP**, Hall vs. RiteAid (2018)  
*Research, simulations, and deposition given in this case of clerks versus their company for the right to be seated for part of the work day as needed for their health.*

**Erise IP, PA**, Ironburg vs. Collective Minds (2018)  
*Expert for Ironburg in a patent infringement case involving hand-held video game controllers.*

**McInerney Law**, Eden Smiles vs. Walgreens (2018)  
*Expert witness for the class action suit by employees seeking suitable seating options per California wage orders.*

**Righetti Glugoski, P.C.**, Brown vs. Walmart (2018)  
*Expert witness for the class action suit by employees seeking suitable seating options per California wage orders.*

**Finnell Firm: Milton Finnel Esq.**, Longhorn Steakhouse vs. Customer (2017)  
*Represented injured customer in a case involving damaged seating that failed and resulted in significant personal injury.*

**Righetti Glugoski, P.C.**, Pickett vs. 99 Cents Only Store (2017)  
*Expert for checkout clerks versus the company for their right to be seated for part of the work day.*

**Adam R. Hess, Esq. | Venable, LLP**, Varidesk vs. ErgoTron (2016)  
*Expert for Varidesk in patent infringement case. Testified at Markman Federal Hearing in Washington D.C., Varidesk secured royalties from ErgoTron on all involved patents.*

**Gark K. Smith Law, PLC**, Furlong vs. Fed X (2016)  
*Expert for employee in occupational injury case. Employee was injured while exiting a plane and lost the ability to be a pilot.*

**Magenheim & Associates**, Monterey Mushroom vs. Holcomb (2016)  
*Expert for Monterey Mushroom in occupational injury case involving a finger amputation on mushroom processing machinery. Gave report and investigation, along with deposition and testimony at arbitration hearing.*

**Simmons & Fletcher**, (2014)  
*Deposition, simulations, and case report in forklift decapitation case at central warehouse distribution center.*

**Banner & Witcoff, LTD**, Humanscale vs. Comp X (2011)  
*Expert consultant in ergonomic patent case involving keyboard tray mechanisms.*

**Apperson Crump & Maxwell, PLC**, (2010)  
*Expert consultant on personal injury case at a Verizon store involving defective adjustable height stool, resulting in critical injuries to an elderly man.*

**McCoy Law, PC**, (2010)  
*Witness on occupational injury case involving CNA back injury.*

**McCoy Law, PC**, (2010)  
*Witness on occupational injury case involving back injury to an oil field drilling rig operator.*

**McCoy Law, PC**, (2010)  
*Witness on occupational injury case involving acute trauma to a hotel maid.*

**McGuire Woods, LLP**, Rubbermaid vs. Ergotron (2009)  
*Served as an expert witness in ergonomic patent case involving computer on wheels used in medical facilities.*

### ***Licensing of Technology***

**AmbiCycle** to ARV, Inc.  
*First commercial license secured by a School of Rural Public Health faculty member.*

**Integrated, Automatically Deployable Foot Rest** to NextDesk, Inc.  
*1 license for US Patent No. 9961990.*

**IP** to Positive Motion, LLC., DBA, and Stand2Learn, LLC. (A faculty lead startup)  
*4 licenses; More than \$100,000 in royalties have been returned to TAMU for these licenses.*

**School desks and footrests patents** to Varidesk

*1 license (master with 5 parts of IP); More than \$100,000 in royalties have been returned to TAMU for these licenses.*

**Mouse and algorithm AI for detecting health status IP licensed to Well Being Code LLC**

**Digital Human IP License to Digital Humanate Inc**

*Testimony to Texas House of Representatives*

**House Committee on Public Health, Mar 8, 2010**

## Research Features

### *Podcasts*

**EP. 1: THE FUTURE OF ERGONOMICS AND WORKPLACE SAFETY**

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**TAMU Center for Worker Health**

**<https://www.youtube.com/watch?v=RI5f1NMo8bk>**

**KAMU/NPR - 12/17/2023: Guest- Mark Benden, PhD, CPE, Director of the Ergonomics Center at the Texas A...**

**<https://www.npr.org/podcasts/1212982454/brazos-matters>**

**#AppliedErgo2022: Ergonomics to keep workers safe at home**

**[Problem Solved: The IISE Podcast: #AppliedErgo2022: Ergonomics to keep workers safe at home on Apple Podcasts](#)**

**ErgoExpo**

**[Movement at Work](#), Guest**

An exploration of new standards, developments, and trends

**IISE: Problem Solved** Guest

Implementing AI and machine learning to build living systems that can prompt the workforce to move while on the job to achieve optimal productivity on an individual

basis, within different types of workspaces. <https://podcast.iise.org/episodes/sit-stand-shake-adjustability-and-ergonomics-with-mark-benden>

### **Science Sound Off**

**Episode 1 – Stand for Your Health**, Guest

Explaining the science of how people work and how we can all be healthier doing so.

### **The Ready State**

**Season 3, Episode 6 – Sedentary Lifestyles**, Guest

Talking about activity permissive offices and schools with StandupKids.org founders, Kelly and Juliet Starrett

## ***Video***

### **TAMU Foundation**

**Mark Benden – Taking a Stand**

### **KBTX**

**Texas A&M Sit-Stand App**

### **KAGS**

**Standing Desks Newscast**

### **Brazos Valley Magazine**

**Standing Desks – Then and Now**

### **BVM1:**

**Interview with Dr. Mark Benden**

### **School of Rural Public Health:**

**Dr. Mark Benden – Standing Desk**

### **KRHD:**

**KRHD Newscast – Standing Desk**

### **Texas A&M School of Public Health:**

**Computer Use Ergonomics**

### **Stand2Learn, Inc.:**

**Pros and Cons of School Desk Ergonomics**

## ***Media coverage***

ABC

Amazon News

Arstechnica

Austin American Statesman

BBC  
BioSpace  
Bloomberg  
Business Standard  
Care 2  
CBS  
Chicago Tribune  
CNN  
Dallas Morning News  
DieWelt  
EdNews Daily  
EurekAlert!  
Examiner  
Fast Company  
Forbes  
Fox News Health  
Futurity  
Good Housekeeping  
GQ  
Healio  
Houston Chronicle  
HSC/TAMU Podcast  
Huffington Post  
IIES Magazines  
Inc Magazine  
KAGS  
KBTX  
LA Times  
Martha Stewart Living  
Men's Health  
MMQB  
Mobility WOD Podcast

MSN  
NBS  
New York Times  
NewsMax  
Newswise  
NPR  
Outside  
Parade Magazine  
Parents Magazine  
Reuters  
Science Daily  
Seattle Times  
State Times India  
TagesAnzeiger  
Teacher Magazine  
TechTimes  
Texas Standard  
Texas Tribune  
The Eagle  
The Express Tribune  
The Medical News  
The New Indian Express  
The Siasat Daily  
Shape Magazine  
Time Magazine  
Today Parenting  
Waco Tribune Herald  
Wall Street Journal  
Washington Post  
Women's Health  
Yahoo News