

Zachary J Hass

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EDUCATION

Purdue University, West Lafayette, Indiana

Ph.D. Statistics (August 2017)

M.S. Applied Statistics (May 2013)

Case Western Reserve University, Cleveland, Ohio

B.A. Statistics and Economics (May 2011)

Minor Banking and Finance

EMPLOYMENT HISTORY

Associate Professor

Aug 2024 – Present

Purdue University, School of Nursing and Edwardson School of Industrial Engineering, West Lafayette, IN

- Regenstrief Center for Healthcare Engineering Full Member
- Faculty Associate, Center on Aging and the Life Course
- Purdue Rep to the Biostatistics, Epidemiology, and Research Design Program, Indiana CTSI
- Health services research with a focus on program evaluation and health outcomes for older adults
- Teach graduate and undergraduate statistical courses with applications in health care and engineering
- Service to the University, mentoring students, and engagement with the community

Assistant Professor

Fall 2018 – July 2024

Purdue University, Schools of Nursing and Industrial Engineering, West Lafayette, IN

Post-Doctoral Research Associate

Fall 2017 – Fall 2018

Purdue University, School of Nursing, West Lafayette, IN

- Data management and statistical modeling for gerontology and health care research group (SAS, R, MPlus)
- Author and assist in preparation of manuscripts, give research presentations (both local and national)
- Consult/collaborate with nursing faculty on research projects, statistical modeling and interpretation
- Assist in design/implementation of new Applied Statistics in Healthcare course for new PhD program

Research Assistant

Fall 2013 – Fall 2017

Purdue University, School of Nursing, West Lafayette, IN

- Data management and statistical modeling for gerontology and health care research group (SAS, R, SPSS)
- Produce papers and give presentations

Stat Crew Keyer

Fall 2013 – Present

Purdue University, Athletic Communications Department, West Lafayette, IN

- Transcribe statistician's game call live for official record for media and NCAA (FB, VB '18, MBB, WBB)

Graduate Student Mentor – HHMI REU

Summers 2014, 15

Purdue University, Biology Department, West Lafayette, IN

- Statistical consultant on life science undergraduate summer research projects
- Serve as mentor, social organizer, and lead quantitative training sessions for non-statistical audience (SPSS)

Measurement Science Intern

Summer 2013

The Nielsen Company, Measurement Science Division, Schaumburg, IL

- Develop and implement Data Fusion sample maintenance program for new big data product (SAS/UNIX)

Teacher's Assistant and Student Statistical Consultant

Fall 2011 – Spring 2013

Purdue University, Statistics Department, West Lafayette, IN

Actuarial Intern

Summers 2011, 12

The Erie Insurance Group, Actuarial Division, Modeling Team, Erie, PA

- Test and create documentation for TreeNet software, build life insurance propensity model (TreeNet, SAS)
- Investigate stability and pricing impact of new rating variables over time (SAS)

Teacher's Assistant

August 2010-May 2011

Case Western Reserve University (Economics Dept.), Cleveland, Ohio

- Econometrics, hold review sessions, grade assignments, serve as point of contact (STATA)

Business Process Analyst Intern

Summer 2010

Goodyear Tire & Rubber Company, Corporate IT, Akron, Ohio

- IT project management process improvement, research and implement best practices

Football Office Assistant

Fall 2007-May 2011

Case Western Reserve University, Cleveland, Ohio

- Assist in new player recruitment and game film management

CURRENT RESEARCH PROJECTS

Indiana Clinical and Translational Science Institute (Co-PI)

Summer 2020-Present

- National Center for Advancing Translational Sciences (subcontract through IUPUI)
- Support Project Development Team at Purdue
- Purdue representative to the Biostatistics, Epidemiology, and Research Design program

Pathways to Safety for At-Risk Adults Experiencing ANE (Co-PI)

Fall 2021 – Fall 2025

- Administration for Community Living
- Collaboration with Montana APS
- Implementing and evaluating post case closure follow up with APS clients

Home-based heat therapy to improve functional performance in Heart Failure with Preserved Ejection Fraction (Co-I)

Summer 2023 – Summer 2026

- American Heart Association
- Evaluate the impact of home-based heat therapy on functional performance for HF patients

Role of Serum Advanced Glycation End Products in Altering Tendon Properties with Diabetes (Co-I)

Fall 2023 – Summer 2028

- National Institute of Health
- Advance the understanding of AGE impact on tendon properties for individuals with diabetes through statistical modeling

Evaluation of Department of Human Services Continuing Care Policy Initiatives (PI: Greg Arling), Minnesota Department of Human Services

Spring 2015 – Summer 2026

- Development and quarterly updating of nursing home QI for community discharge and hospitalization
- Policy evaluation of Value Based Reimbursement policy
- In-take disparities assessment
- Assessing the impact of the Level of Care legislation in Minnesota
- Personal Care Assistance Program Characterization
- Alternative Care Program Characterization
- Projecting LTSS Users and Costs to Medicaid through 2039

PUBLICATIONS UNDER REVIEW

- George W.M., Hass, Z., Pitts, B.J. Do You Trust What an Automated Vehicle Shows You? The Effects of Presenting Dynamic System Certainty Information on Driving Behavior. Revise and Resubmit September, 2025.
- Xue, W.L., Hass, Z., Richards, E., Abrahamson, K., Suitor, J., and Liu, P.J. *Interpersonal Relationship Quality and Likelihood of Elder Mistreatment: A Longitudinal Study Using NSHAP Data*, Submitted February 2025.
- Mutchie, H., Zhang, Y., Hass, Z., Liu, M. Using a Standardized Tool to Assess Differences in the Adult Protective Services Process by Client Race/Ethnicity and English Language Acquisition. Submitted April 2025.
- Perone, A., Abadir, P., Berlinger, N., Carey, J., Guest, A., Hass, Z., Stephan, A., Xie, B. Multidisciplinary Perspectives on Artificial Intelligence in Gerontological Research and Education: Evolving Uses, Ethics, and Equity Considerations. Submitted April 2025.
- Xue, W.L., Hass, Z., Richards, E., Abrahamson, K., Liu, M. Interpersonal Relationship Quality and Likelihood of Elder Mistreatment. Submitted July 2025.
- Wang, Y., Foli, K., Hass, Z., Adams, N., Lee, S. Psychological Trauma, Substance Use, and Turnover Intention Among Middle-Level Nurse Managers: A Mixed-Methods Study of Workplace Stress and Support. Submitted August 2025.
- Nesvet, M., Effler, S., Sutton, N., Hass, Z., Baker, E., Unroe, K. Analysis of Dementia Strategic Plans in US States. Submitted September 2025.
- Wang, Y., Foli, K., Hass, Z., Adams, N., Lee, S. Substance Use Among Middle-Level Nurse Managers. Submitted September 2025.

PUBLICATIONS

Peer Reviewed

- Heo, D., Foli, K., & Hass, Z. (2025). An application of Nightingale's environmental theory in telenursing. *Nursing Outlook*, 73(3), 102422.
- Lou Z.*G, Hass, Z., Kong, N. (2025). *30-day Hospital Readmission Prediction among Older Adults Discharged to Skilled Nursing Facilities: An Interpretable Machine Learning Study*. Journal of Healthcare Analytics. In Press.
- Garcia, E. and Hass, Z. (2025). *Characterizing Pre-Discharge Interventions to Reduce LOS for Older Adults: A Scoping Review*. PLOS One, 20(2), e0318233.
- Qinglan, D., Yuting, X., Koo, B. B., Hass, Z., Brian, W., Sico, J. J., ... & Andrey, Z. (2025). Association Between Sleep-Related Leg Movements and Diabetes Prevalence: A Cohort Study From the United States. *Cureus*, 17(5).
- Gonzalez-Canas, C.G, Valencia-Zapata, G., Estrada Gomez, A.M., Hass, Z. (2024). *Assessing the impact on quality of prediction and inference from balancing in multilevel logistic regression*. Healthcare Analytics, 6, 100359.
- Carroll, C.C., Campbell, N.W.C., Lewis, R.L., Preston, S.E., Garrett, C.M., Winstone, H.M., Barker, A.C., Vanos, J.M., Stouder, L.S., Reyes, C., Fortino, M.A., Goergen, C.J., Hass, Z.J., Campbell, W.W. (2024). Greater Protein Intake Emphasizing Lean Beef Does Not Affect Resistance Training-Induced Adaptations in Skeletal Muscle and Tendon of Older Women: A Randomized Controlled Feeding Trial. *The Journal of Nutrition*, 154(6), 1803-1814.
- Stanik, M., Hass, Z., Kong, N. (2024). Seizure prediction in stroke survivors who experienced an infection at skilled nursing facilities—a machine learning approach. *Frontiers in Physiology*, 15, 1399374.

- Gonzalez-Canas, C., Ding, Q., Simpson, V.L, Hass, Z. (2024). Testing Race Differences in Risk of Gestational Diabetes Mellitus Associated with Household Food Insecurity (Using NHANES 2007–2018). *American Journal of Perinatology*, 41(S 01), e3008-e3017.
- Forster, A.K., Richards, E.L, Franks, M.M., Foli, K.J., Hass, Z. (2024). Positive Affect and Physical Activity Associations in Women and Their Spouses. *Western Journal of Nursing Research*, 46(4), 278-287.
- Frazier, S., McComb, S.A., Hass, Z., Pitts, B.J. (2024). The Moderating Effects of Task Complexity and Age on the Relationship Between Automation Use and Cognitive Workload. *International Journal of Human-Computer Interaction*, 40(7), 1746-1764.
- Gonzalez-Canas, C., Pujol, T., Griffin, P., Hass, Z. (2023). Using multilevel logistic regression to identify the relevance of environmental risk factors of Gestational Diabetes Mellitus (GDM). *Healthcare Analytics*, 3, 1-6.
- Kovich, M., Simpson, V., Foli, K., Hass, Z., Phillips, RG. (2023). Application of the PERMA Model of Well-being in Undergraduate Students. *International Journal of Community Well-Being*, 6, 1-20.
- Hass, Z., Abrahamson, K., Arling, G. (2022). Ownership Change and Care Quality: Lessons from Minnesota's Experience with Value-Based Purchasing. *Innovation in Aging*, 6(4), igac022.
- Liu, P.J., Hass, Z., Stratton, S., Conrad, K.M., Conrad, K.J. (2022). Examining Adult Protective Services Outcomes: Services that Mitigate Mistreatment Differed by Elder Mistreatment Type. *Gerontologist*, 62(9), 1359-1368.
- Simpson, V., Hass, Z., Panchal, J., McGowan, B. (2022) Understanding the Development, Evaluation, and Sustainability of Community Health Networks Using Social Network Analysis: A Scoping Review. *American Journal of Health Promotion*, 36(2), 318-327.
- Forster, A., Richards, E., Foli, K., McGowan, B., Hass, Z., Becker, M., & Miller, A (2021). Influence of Affect on Physical Activity: An Integrative Review. *Clinical Nursing Research*, 30(7), 934-949.
- Hass, Z., Woodhouse, M., Arling, G. (2021). Using a Semi-Markov Model to Estimate Medicaid Cost Savings due to Minnesota's Return to Community Initiative. *Journal of the American Medical Directors Association*, 22(3), 642-647.
- Conrad, K.J., Liu, P.J., Hass, Z., & Conrad, K.M. (2021). Balancing practicality and validity of elder abuse identification measures: using data from adult protective services investigations, *Journal of Elder Abuse & Neglect*, 33(1), 47-64.
- Chao, W., Lehto, M., Pitts, B. & Hass, Z. (2020). Proceedings from 11th AHFE International Conference 2020: Evaluation of the Effectiveness of an Interpretive Nutrition Label Format in Improving Healthy Food Discrimination using Signal Detection Theory. *Advances in Neuroergonomics and Cognitive Engineering*. San Diego, California. Pp 342-348.
- Chao, W. & Hass, Z. (2020). Proceedings from HCI International 2020: Choice-Based User Interface Design of a Smart Healthy Food Recommender System for Nudging Eating Behavior of Older Adult Patients with Newly Diagnosed Type II diabetes. *Human Aspects of IT for the Aged Population. Healthy and Active Aging*. Copenhagen, Denmark. Pp. 221-234.
- Abrahamson, K., Hass, Z., & Arling, G. (2020). Shall I stay or shall I go? The choice to remain in the nursing home among residents with high potential for discharge. *Journal of Applied Gerontology*, 39 (8), 863-870.
- Liu, P., Stratton, S. K., Hass, Z., & Conrad, K. J. (2020). Can standardized measures provide helpful feedback about Adult Protective Services substantiation? Pilot data from a short self-neglect assessment. *Journal of Elder Abuse and Neglect*, 32(3), 259-274.

- Hass, Z., Woodhouse, M., & Arling, G. (2020). Do Residents Participating in Minnesota's Return to Community Initiative Experience Similar Postdischarge Outcomes to Their Peers? *Medical Care*, 58 (4), 399-406.
- Simpson, V. and Hass, Z. (2019). Individual Health Outcomes Secondary to a Nurse-Led Coalition-Based Health Promotion Program for Underserved Diverse Populations. *Public Health Nursing*, 36 (5), 667-675.
- Hass, Z., Woodhouse, M., Grabowski, D.C., Arling, G. (2019). Assessing the impact of Minnesota's return to community initiative for newly admitted nursing home residents. *Health Services Research*, 54 (3), 555-564.
- Richards, E.A., Thomas, P.A. Forster, A.K., and Hass, Z. (2019). A Longitudinal Examination of the Impact of Major Life Events on Physical Activity. *Health Education and Behavior*, 46 (3), 398-405.
- Hass, Z. and Craig, B.A. (2018). Exploring the Potential of the Plus/Minus in NCAA Women's Volleyball via the Recovery of Court Presence Information. *Journal of Sports Analytics*, 4 (4), 285-295.
- Unroe, K., Hickman, S.E., Carnahan, J.L., Hass, Z., Sachs, G.A., Arling, G. (2018). Investigating the Avoidability of Hospitalizations of Long Stay Nursing Home Residents – Opportunities for Improvement. *Innovation in Aging*, 2(2).
- Unroe, K., Carnahan, J.L., Hickman, S., Sachs, G., Hass, Z., Arling, G. (2018). The Complexity of Determining Whether a Nursing Home Transfer is Avoidable at Time of Transfer. *Journal of American Geriatrics Society*, 66, 895-901.
- Hass, Z., Woodhouse, M., Kane, R., & Arling, G. (2018). Modeling Community Discharge of Medicaid Nursing Home Residents: Implications for Money Follows the Person. *Health services research*, 53(4).
- Abrahamson, K., Hass, Z., & Sands, L. (2017). Likelihood that expectations of informal care will be met at onset of caregiving need: a retrospective study of older adults in the USA. *British Medical Journal Open*, 7(12).
- Noureldin, M., Hass, Z., Abrahamson, K., & Arling, G. (2017). Fall risk, supports and services, and falls following a nursing home discharge. *The Gerontologist*, 58 (6), 1075-1084.
- Hass, Z., Craig, B. A., & Schinckel, A. (2017). Proceedings from Conference on Applied Statistics in Agriculture 2016: *Developing Prediction Equations for Fat Free Lean in the Presence of an Unknown Amount of Proportional Measurement Error*. Manhattan, Kansas.
- Abrahamson, K., Hass, Z., Morgan, K., Fulton, B., & Ramanujam, R. (2016). The Relationship Between Nurse-Reported Safety Culture and the Patient Experience. *Journal of Nursing Administration*, 46(12), 662-668.
- Hass, Z., Levine, M., Sands, L. P., Ting, J., & Xu, H. (2016). The modeling of medical expenditure data from a longitudinal survey using the generalized method of moments (GMM) approach. *Statistics in medicine*, 35(15), 2652-64.
- Hass, Z., DePalma, G., Craig, B. A., Xu, H., & Sands, L. P. (2015). Unmet Need for Help with Activities of Daily Living Disabilities and Emergency Department Admissions among Older Medicare Recipients. *The Gerontologist*, 57(2), 206-210.
- He, S., Craig, B. A., Xu, H., Covinsky, K. E., Stallard, E., Thomas, J., ... & Sands, L. P. (2015). Unmet need for ADL assistance is associated with mortality among older adults with mild disability. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, 70(9), 1128-32.
- Hass, Z. J., Zhou, Z., & Craig, B. A. (2015). Proceedings from Conference on Applied Statistics in Agriculture 2014: *Developing Prediction Equations for Carcass Lean Mass in the Presence of Proportional Measurement Error*. Manhattan, Kansas.
- Hass, Z., Woyczyński, W. A., Yanosko, C., & Becker, E. (2012). A Lost Opportunity: Recovering the End of Major League Baseball's 1994 Strike Shortened Season. *Mathematica Applicanda*, 40.

Other Reports (Not Peer Reviewed)

- Arling, G., Hass, Z., Woodhouse, M., Blewett, L. (2025). *Final Report – Phase 2 Study of Long-Term Services and Supports for Minnesota’s Older Population: Current and Future Utilization and Costs; Own Your Future 3.0: Planning for Minnesotans’ LTSS Needs*. Report submitted to the Minnesota Department of Human Services.
- Hass, Z. (2024). *Indiana Dementia Strategic Plan Research Compendium Report*. Submitted to the Indiana Family and Social Services Administration.
- Liu, P.J. and Hass, Z. (2024). *Utah Adult Protective Services’ Use of The Identification, Services, and Outcomes Matrix Evaluation Report*. Submitted to the Utah Department of Health and Human Services Aging and Adult Services.
- Arling, G., Hass, Z., Woodhouse, M. (2024). *Minnesota’s Reform 2020 Section 1115 Demonstration Waiver Alternative Care Program: April 2024 Interim Report*. Submitted to the Minnesota Department of Human Services.
- Liu, P.J., Conrad, K.J., Hass, Z., Conrad, K.M. (2024). *Montana’s System Transformation to Assist Adult Protective Services: Focus on Opioid Misuse – Evaluation Report of Montana’s State Grant to Enhance Adult Protective Services*. Submitted to the State of Montana.
- Arling, G., Hass, Z., Xu, D., Blewett, L., Woodhouse, M. (2023). *Long-Term Services and Supports for Minnesota’s Older Population: Current and Future Utilization and Medicaid Payments*. Submitted to the Minnesota Department of Human Services.
- Abrahamson, K., Hass, Z.*, Zhang, Y., Pearson, M., Zych, A., Blackburn, J. (2023). *CHOICE Program: Evaluation Of 0-1 ADL Cohort*. Final project report submitted to the Indiana Family and Social Services Administration Division of Aging.
- Hass, Z., Woodhouse, M., Arling, G.* (2023). *Value Based Reimbursement Evaluation 2023: Analysis of Trends Cost Report and Quality Measures: 2013-2020*. Report prepared by Purdue University and the University of Minnesota for the Minnesota Department of Human Services.
- Hass, Z., Woodhouse, M., Arling, G.* (2022). *Minnesota’s Reform 2020 Section 1115 Demonstration Waiver Alternative Care Program: October 2022 Report*. Report prepared by Purdue University and the University of Minnesota for the Minnesota Department of Human Services.
- Arling, G., Hass, Z., Xu, D., Woodhouse, M. (2021). *Comparison of Racial and Ethnic Groups in their Level of Care Screenings and Use of Home and Community-Based Services (HCBS) in the Minnesota Medicaid Population*. Submitted to the Minnesota Department of Human Services.
- Arling, G., Hass, Z., Woodhouse, M. (2021). *Minnesota’s Reform 2020 Section 1115 Demonstration Waiver Alternative Care Program: Report June 2021*. Submitted to the Minnesota Department of Human Services.
- Hass, Z., Xu, D., Rurka, M., Cai, K., Abrahamson, K., Woodhouse, M., Arling, G. (2020). *Evaluation of the NF Payment Reform Legislation: 2021 Report to the Legislature*. Report prepared by Purdue University and the University of Minnesota for the Minnesota Department of Human Services.
- Hass, Z. (2020). *Technical Report: Value Based Reimbursement Trend Analysis*. Report prepared by Purdue University for the Minnesota Department of Human Services in support of the 2021 Report to the Legislature.
- Hass, Z. (2020). *Technical Report: Cost and Quality Clustering*. Report prepared by Purdue University for the Minnesota Department of Human Services in support of the 2021 Report to the Legislature.
- Hass, Z. (2020). *Technical Report: Change of Ownership*. Report prepared by Purdue University for the Minnesota Department of Human Services in support of the 2021 Report to the Legislature.
- Liu, P., Hass, Z., Conrad, K. J., Conrad, K. M., Zhang, Y., Butler, A., & Stratton, S. (2020). *Montana’s state grant evaluation to enhance Adult Protective Services: Evaluation report 2018-2020*. Report prepared by Purdue University and University of Illinois at Chicago for State of Montana.

- Arling, G., Hass, Z., and Woodhouse, M. (2019). Study of the Minnesota Personal Care Assistance Program Project Report 2019. Report submitted to the Minnesota Department of Human Services.
- Arling, G., Hass, Z., and Woodhouse, M. (2019). Minnesota's Reform 2020 Section 1115 Demonstration Waiver Alternative Care Program: Interim Report June 2019. Report submitted to the Minnesota Department of Human Services.
- Arling, G., Hass, Z., and Woodhouse, M. (2019). Evaluation of the NF Payment Reform Legislation Background for the 2019 Report to the Legislature. Report submitted to the Minnesota Department of Human Services.
- Arling, G., Hass, Z., and Woodhouse, M. (2018). Evaluation of Changes in Minnesota's Change in Nursing Facility Level of Care (NF-LOC) Criteria for Nursing Facility Residents. Report submitted to the Minnesota Department of Human Services.
- Arling, Greg et al. (2017). Return to Community Initiative (RTCI) Evaluation Final Report: Quantitative Findings. (AHRQ Project Report).
- Hass, Z. J. (2017). Division of Credit Modeling for Team Sports with an Emphasis on NCAA Volleyball (Doctoral dissertation, Purdue University).
- Craig, B. A., Hass, Z., & McCabe, S. (2015). A Statistician Reads the Sports Pages: Easy to Criticize, Harder to Verify: Fourth and Goal in Post-2011 NFL Overtime. *CHANCE*, 28(2), 54-57.

CONFERENCE PRESENTATIONS

- Gutierrez, E.J., Fortino, M., Patel, S. H., Hass, Z.J., Haus, J.M., Carroll, C.C. (August 4-7, 2025). *Serum Advanced Glycation End Products (AGEs) A Novel Predictor of Tendon Properties in Humans*. Military Health System Research Symposium, Orlando, FL.
- Wang, Y., Foli, K.J., Hass, Z., Adams, N., Lee, S. (July 17-20, 2025), *Middle-Level Nurse Managers: Psychological Trauma, Work Challenges, Substance Use and Intention to Leave*. 36th International Nursing Research Congress, Seattle, WA.
- Kirby, K., Johnson, R., Hass, Z. (July 17-20, 2025). *Longitudinal Assessment of DEIB in Nursing Curriculum Using the IDI*. (Poster, Peer Reviewed). 36th International Nursing Research Congress, Seattle, WA.
- Yu, H., Hass, Z., Kong, N. (July 1-3, 2025). *Structure-aware Reinforcement Learning for Routing Operations Optimization and its Application to Skilled Nursing Facility Recommendation*. (Podium, Peer Reviewed). 2025 INFORMS Service Science Annual Conference, Oxford, England.
- Garcia, E. and Hass, Z. (April 11, 2025). *Assessing Algorithmic Bias in Clinical Decision Support Systems for Acute Myocardial Infarction: A Mimic IV Cohort Study*. (Poster, Peer Reviewed). Human Factors and Ergonomics Society Regional Meeting, West Lafayette, IN. Top Poster Award.
- El-Feshway, N., Hass, Z., Ahmed, A. (March 26-29, 2025). *Factors Associated with Postpartum Depression, Anxiety, Self-efficacy, and Breastfeeding Outcomes among Egyptian Women*. (Poster, Peer Reviewed). Midwest Nursing Research Society Annual Research Conference, Indianapolis, IN.
- Abadir, P., Berlinger, N., Carey, J., Guest, A., Hass, Z., Stephan, A., Xie, B. (November 14, 2024). *Technology in Aging: Artificial Intelligence*. (Invited Panelist). Gerontological Society of America Annual Meeting, Seattle, WA.
- Garcia, E., Layadi, I., Zhang, T. Kong, N., Hass, Z. J. (October 30-November 2, 2024). *Aligning Consumer Preferences in the Shifting Landscape of Nursing Home Accessibility*. (Podium presentation, peer reviewed). Society of Hispanic Professional Engineers (SHPE) 2024 Annual Convention Engineering Science Symposium (ESS). Anaheim, California.

- Garcia E., and Hass, Z. (October 20-23, 2024). *Assessing Algorithmic Bias in Clinical Decision Support Tools for Acute Myocardial Infarction Patients: A MIMIC IV Cohort Study*. (Podium presentation, peer reviewed). 2024 INFORMS Annual Meeting, Seattle, WA.
- Garcia, E., Layadi, I., Hass, Z., Kong, N. (May 18-21, 2024). *Aligning Consumer Preferences in the Shifting Landscape of Nursing Home Accessibility*. Institute of Industrial and Systems Engineers Annual Conference and Expo 2024, Montreal, Canada.
- Xue, W., Hass, Z. & Liu, P. (February 22-23, 2024). *Using Relationship Quality to Investigate Repeat Victims' Self-Rated Health and Mental Well-being*. (Poster presentation, peer reviewed). The Judith D. Tamkin International Symposium on Elder Abuse, Pasadena, CA.
- Chen, C.G, Simpson, V., Mallur, A.U, Hass, Z. (November 13, 2023). *Elements of Local Public Health Infrastructure that Correlate with Best Practice Activities: A Preliminary Analysis*. American Public Health Association Annual Meeting, Atlanta, GA.
- Liu, P., Xue, W., & Hass, Z. (November 8-12, 2023). *Enhancing collaboration from Adult Protective Services to providers working with mistreatment victims/survivors*. Symposium presentation at the Gerontological Society of America's 2023 Annual Scientific Meeting, Tampa, FL.
- Xue, W.g, Hass, Z., Liu, P.J. (November 8-12, 2023). *Using interpersonal relationships and social network to understand elder mistreatment recurrence*. (Poster, Peer Reviewed). Gerontological Society of America Annual Meeting, Tampa, FL.
- Mann, J., Xue, W.^G, Aoun, L., Encinas, N., Hass, Z, & Liu, P. (April 1, 2023). *Clinical examination of elder self-neglect*. (Poster). Purdue University's HHS Life Inspired: Research and Graduate Event, West Lafayette, IN.
- Xue, W.^G, Hass, Z., Liu, P.J. (March 30 – April 1, 2023). *Using social ecological model to understand the risk of elder abuse: A longitudinal study using National Social life, Health, and Aging Project data*. (Poster). Midwest Nursing Research Society 2023 Annual Research Meeting, Des Moines, IA. **1st Place PhD Student Poster Contest.**
- Xue, W.L.^G, Hass, Z., Liu, P.J. (November 2-6, 2022). *Elder Mistreatment and Relationship Quality: Longitudinal Data Analysis Using Data from the NSHAP*. (Poster, Peer Reviewed). Gerontological Society of America Annual Meeting, Indianapolis, IN. **Top Ten Finalist for Best Student Poster**
- Liu, P.J., Hass, Z., Stratton, S., Conrad, K., Conrad, K. (November 2-6, 2022). *Self-Neglect of Older Adults: How Can Adult Protective Services Help?* (Podium Presentation, Peer Reviewed). Gerontological Society of America Annual Meeting, Indianapolis, IN.
- Zhang, Y^G, Loria, J., Jiang, J., Wu, W., Hass, Z., Sabbaghi, A. (October 16-19, 2022). *The Application of Transfer Learning In Tellurene Manufacturing*. (Paper, peer reviewed). INFORMS Annual Meeting 2022, Indianapolis, IN.
- Gonzalez-Canas^G, C., Ding, Q., Simpson, V.L., Hass, Z. (October 16-19, 2022). *Testing Race Differences in Risk of Gestational Diabetes Mellitus Associated with Household Food Insecurity (Using NHANES 2007-2018)*. (Poster, Peer Reviewed). INFORMS Annual Meeting 2022, Indianapolis, IN.
- Scott, C., Simpson, V., Hass, Z. (September 7, 2022). *Consortium for Opioids Response Engagement – East Central Indiana*. (Poster). Healing Healthcare: Equity through Innovation, 1st Annual Regenstrief Center for Healthcare Engineering Summit, West Lafayette, IN.
- Kovich, M., Simpson, V., Foli, K., Phillips, R. Hass, Z. (August 3-6, 2022). *Quality-of-Life for Resilient Futures: Sustainability, Equity, and Wellbeing*. (Podium, peer reviewed). International Society for Quality-of-Life Studies, Burlington, Vermont.

- Xue, W.L.⁶, Hass, Z., Liu, P.J. (September 9th, 2022). *Elder Mistreatment and Relationship Quality: Secondary Data Analysis Using Data from the NSHAP*. (Poster). Center on Aging and the Life Course - Symposium on Elder Mistreatment: Prevention, Complexities, and Future Directions, Purdue University, West Lafayette, IN.
- Forster, A.⁶, Richards, E.A., Franks, M.M., Foli, K.J., Hass, Z. (March 25, 2022). *A Walk Down the Aisle: How Wives' Positive Affect Impacts Their Physical Activity – A Multi-Level Model Analysis of Couples*. (Poster). College of Health and Human Sciences Research Day, Purdue University, West Lafayette, IN.
- Garcia, E.⁶, Hass, Z. (November 10-14, 2021). *Characterizing Pre-Discharge Interventions to Reduce LOS for Older Adults: A Scoping Review* (Podium Presentation, peer reviewed). 2021 Society of Hispanic Professional Engineers National Convention, Orlando, Florida. **Won honorable mention for top student presentation.**
- Gonzalez-Canas⁶, C., Griffin, P., Hass, Z., Toyya, P. (September 27, 2021). *Using Multilevel Logistic Regression to Identify the Relevance of Environmental Factors in the Risk of Gestational Diabetes Mellitus*. (Podium Presentation, Invited Talk). IV Simposio en Epidemiologia y bioestadistica: Analitica en Salud, Universidad CES, Medellin, Colombia, virtual.
- Hass, Z. and Arling, G. (June 24th, 2021). *Identifying Clusters of Nursing Facilities that Responded Differently Over Time to a New Value Based Reimbursement System*. (Podium presentation, peer reviewed). 5th Transforming Care Conference, Venice, Italy (Virtual).
- Hass, Z., Abrahamson, K., Xu, D., and Cooke, V. (November 4-7, 2020) *Understanding Nursing Home Responses to Minnesota's New Value Based Reimbursement System*. Poster Presentation. Gerontological Society of America Annual Scientific Meeting, Virtual.
- Liu, P.J., Hass, Z., Conrad K.M, Conrad K.J. (November 4-7, 2020). *Age Differences in Elder Abuse Harm and Effective Services Offered by Adult Protective Services*. (Podium Presentation, peer reviewed) Gerontological Society of America Annual Scientific Meeting, Virtual.
- Hass, Z., Liu, P.J., Conrad K.M, Stratton, S., Conrad K.J. (November 4-7, 2020). *Examining Differences in Allegations, Assessment, Services, and Outcomes across Racial and Language Groups using Standardized Adult Protective Services Data*. (Podium Presentation, peer reviewed) Gerontological Society of America Annual Scientific Meeting, Virtual.
- Conrad K.J., Liu, P.J., Hass, Z., Conrad K.M, (November 4-7, 2020). *Balancing Practicality and Validity of Elder Abuse Identification Measures: Using Data from Adult Protective Services Investigations*. (Podium Presentation, peer reviewed) Gerontological Society of America Annual Scientific Meeting, Virtual.
- Stratton, S., Liu, P.J., Conrad K.J. Hass, Z. (November 4-7, 2020). *Understanding Practice Through Research*. (Podium Presentation, peer reviewed) Gerontological Society of America Annual Scientific Meeting, Virtual.
- Xu, D., Arling G., & Hass Z. (July 27-31, 2020). *Care Trajectories in a Cohort of Nursing Home Long-Stay Residents with Dementia, 2011-2016*. (Poster presentation, peer reviewed). Alzheimer's Association International Conference. (Virtual)
- Chao, W. & Hass, Z. (July 16-20, 2020). *Evaluation of the Effectiveness of an Interpretive Nutrition Label Format in Improving Healthy Food Discrimination using Signal Detection Theory*. Paper Presentation. 11th AHFE International Conference 2020. San Diego, California. (Virtual)
- Chao, W. & Hass, Z. (July 19-24, 2020). *Choice-Based User Interface Design of a Smart Healthy Food Recommender System for Nudging Eating Behavior of Older Adult Patients with Newly Diagnosed Type II diabetes*. Paper Presentation. HCI International 2020. Copenhagen, Denmark. (Virtual)
- Arling, G., Xu, D., Hass, Z. (June 19-20, 2020). *Care Transitions in a Longitudinal Cohort of Nursing Home Admissions with Dementia*. Paper Presentation. 6th Nursing Home Research International Working Group Long-Term Care Research. Leiden, The Netherlands. (Virtual)

- Simpson, V., Diebolt, J., Byungkyu, Y., Hass, Z., Rayz, J. (February 28, 2020). *Social Media and Rural Health: Challenges in Identifying Gaps in Care*. Poster Presentation. Health and Disease: Science, Technology, Culture, and Policy Research Poster Session. West Lafayette, Indiana.
- Garcia, E., Griffin, P., Huang, P., Reagin, J., Hass, Z. (February 26-28, 2020). *Reducing Potentially Avoidable Hospital Readmissions for Long-Term Care*. Poster Presentation. Healthcare Systems Process Improvement Conference. Savannah, Georgia.
- Hass, Zachary, Valerie Cooke, Mark Woodhouse, and Greg Arling. (November 15-19, 2019). *Effects of a New Value Based Reimbursement System on Expenditures and Care Quality in Minnesota Nursing Homes*. Paper presented at the Gerontological Society of America's 71st Annual Meeting, Austin, TX.
- Liu, P., Hass, Z., Conrad, K. J., Conrad, K. M., Yeh, J., Iris, M., Stratton, S., & Butler, A. (November 15-19, 2019). *Telling the Story of Adult Protective Services: Piloting California's Identification, Services, and Outcomes Matrix*. Poster presentation. Gerontological Society of America's 71st Annual Meeting, Austin, TX.
- Forster, A., Richards, E., Franks, M., Foli, K., Hass, Z. (November 16-20, 2019). *How Affect Influences Physical Activity: An Integrative Review*. Poster presentation. Sigma Theta Tau Biennial Convention. Washington, DC, USA.
- Minnich, K., Richards, E., Jones, E., Hass, Z., Spoerner, D. (June 4-7, 2019). *Implementation and evaluation of an exercise prescription in a rural school setting*. Poster presentation. International Society of Behavioral Physical Activity & Nutrition. Prague, Czech Republic.
- Arling, Greg, and Zachary Hass. (June 24-26, 2019). *Response of For-Profit, and Government-Owned Nursing Homes to a New Value-Based Reimbursement System in Minnesota (US)*. Paper presented at the 4th Transforming Care Conference, Copenhagen, Denmark.
- Chao, Wen-Yu and Zachary Hass. (February 25, 2019). *Choice-Based User Interface Design of an MHealth App for Elderly Adults to Self-Manage Food Intake*. Poster Presentation. Health and Disease: Science, Technology, Culture and Policy Research Poster Session, Purdue University, West Lafayette, IN.
- Xu, Jiayun, Zachary Hass, Kathleen Abrahamson, Donna Xu, and Greg Arling (November 4-7, 2018). *Caregiver Health Among Family Caregivers of Discharged Nursing Home Patients*. Poster presented at Gerontological Society of America Annual Scientific Meeting, Boston, MA.
- Arling, Greg, Zachary Hass, Mark Woodhouse, and David Grabowski (September 10-12, 2018). *Minnesota's Return to Community Initiative is Effective in Reducing Nursing Home Use and Achieving Post-Discharge Outcomes*. Paper presented at International Long-Term Care Policy Network 5th International Conference on Evidence-Based Policy in Long-Term Care, Vienna, Austria.
- Hass, Zachary, Mark Woodhouse, David Grabowski, and Greg Arling (June 24-26, 2018). "Using Regression Discontinuity to Evaluate the Minnesota Return to Community Initiative's Impact on Community Discharge." Paper presented at the Academy Health Annual Research Meeting, Seattle, WA.
- Hass, Zachary, Mark Woodhouse, and Greg Arling (June 24-26, 2018). "Using a Semi-Markov Model and Simulation to Estimate the Medicaid Cost Savings Attributable to Minnesota's Return to Community Initiative." Poster presented at the Academy Health Annual Research Meeting, Seattle, WA.
- Richards, Elizabeth, Patricia Thomas, Anna Forster, and Zachary Hass. (June 2-4, 2018). *A Longitudinal Examination of the Impact of Major Life Events on Physical Activity*. The 16th International Conference on Social Stress Research. Athens, Greece.
- Potetz, Janelle, Becky Walters, and Zachary Hass (April 22-25, 2018). "Clinical hours beyond the hospital: Incorporating 25% simulation into dedicated education unit clinical models." Poster presented at ATI Nursing Summit, Salt Lake City, UT.

- Hornsby, Claire, Azza Ahmed, Zachary Hass (April 13-15, 2018). "Interactive web-based breastfeeding monitoring improves achieving intention to exclusively breastfeed at three months among mothers of full-term infants." Poster presented at Midwest Nursing Research Society Annual Research Conference, Cleveland, OH.
- Hass, Zachary and B.A. Craig (July, 2017). "Division of Credit Modeling for Team Sports with an Emphasis on NCAA Volleyball." Paper presented at the Great Lakes Analytics in Sports Conference, Stevens Point, WI.
- Arling, Greg, Kathleen Abrahamson, Zachary Hass, Marwa Noureldin, Yun Cai, and Ayu Sudyanti (November 16-20, 2016) "Return to Community Initiative Consumer Characteristics and Outcomes." Paper presented at the Gerontological Society of America Annual Research Meeting, New Orleans, LA.
- Noureldin, Marwa. Greg Arling, Kathleen Abrahamson, Zachary Hass, Yun Cai, and Ayu Sudyanti (November 16-20, 2016). "Living Arrangements and Outcomes at 30 Days After Nursing Home Discharge among Minnesota Return to Community Initiative Residents." Paper presented at the Gerontological Society of America Annual Research Meeting, New Orleans, LA.
- Hass, Zachary and Bruce Craig (July 30-August 4, 2016). "Determining a +/- metric for NCAA Women's Volleyball using incomplete court presence information." Poster presented at the Joint Statistical Meeting, Chicago.
- Arling, Greg, Kathleen Abrahamson, Zachary Hass, Marwa Noureldin, Yun Cai, and Ayu Sudyanti (July 4th, 2016). "Shall I Stay or Shall I Go? Factors Contributing to a Permanent Nursing Home Stay." Paper presented at the International Nursing Home Research Workgroup Meeting, Barcelona, Spain.
- Hass, Zachary, Mark Woodhouse, Robert Kane, and Greg Arling (June 26-28, 2016). "Modeling Community Discharge of Medicaid Nursing Home Residents: Implications for Money Follows the Person." Poster presented at the Academy Health Annual Meeting, Boston.
- Hass, Zachary, Mark Woodhouse, and Greg Arling (June 26-28, 2016). "Building a Care Utilization Model for Minnesota's Return to Community Initiative." Poster presented at the Academy Health Annual Meeting, Boston.
- Hass, Zachary, Mark Woodhouse, Robert Kane, and Greg Arling (June 25, 2016). "Modeling Community Discharge of Medicaid Nursing Home Residents: Implications for Money Follows the Person." Paper presented at the Academy Health Long Term Services and Supports Interest Group Meeting, Boston.
- Hass, Zachary, Bruce A Craig, Allan Schinckel (April, 2016). Developing Prediction Equations for Fat Free Lean in the Presence of Proportional Measurement Error: Replacing Prior Knowledge with Technical Replicates. Poster presented at the Conference on Applied Statistics in Agriculture, Kansas State University.
- Abrahamson, Kathleen, Zachary Hass, and Laura Sands (November 18-22, 2015). "Factors that Influence the Likelihood of Met versus Unmet Expectations of Informal Caregiving." Paper presented at the Gerontological Society of America Annual Research Meeting, Orlando, FL.
- Abrahamson, Kathleen, Zachary Hass, Kris Morgan, and Brad Fulton (September 23, 2015). "The Influence of Safety Culture on Hospital Patient Perception of Pain Management." Paper presented at Sigma Theta Tau International Nursing Research Congress, San Juan, PR.
- Abrahamson, Kathleen, Greg Arling, Zachary Hass, and Mark Woodhouse (June 12-16, 2015). "Preliminary Outcome Assessment of Community Transitioned Nursing Home Residents." Poster presented at Academy Health Annual Research Meeting, Minneapolis, MN.
- Abrahamson, Kathleen, Zachary Hass, Kris Morgan, Brad Fulton, R. Ramanujam (June 12-16, 2015). "Is Safe Care Satisfying?" Poster presented at Academy Health Annual Research Meeting, Minneapolis, MN.
- Hass, Zachary, Sean D McCabe, and Bruce A Craig (August 2-7, 2014). "NFL Overtime Rule Change: Kick the field goal or go for it?" Poster presented at the Joint Statistical Meeting, Boston.

- Hass, Zachary and Bruce A Craig (April, 2014). "Developing prediction equations for carcass lean mass in the presence of proportional measurement error." Paper presented at the Conference on Applied Statistics in Agriculture, Kansas State University.

Awards/Grants

- Sigma Delta Omicron Friend of Nursing Award, 2025.
- Purdue AgSEED; Co-I; \$50,000; 2025-2026.
- NCSBN Center for Regulatory Excellence; Subaward PI; \$93,000; 2024-2025
- Indiana Family and Social Services Administration; Subaward PI; \$24,000; 2024
- American Heart Association; Co-I; \$300,000; 2023-2026
- Indiana Family and Social Services Administration; Co-PI; \$148,107; 2023
- Minnesota Department of Human Services; Co-PI; \$289,000; 2021-2024
- Indiana Nurse Foundation Research Grant; Co-I; \$2,500; 2023
- 2022 Outstanding Faculty Mentor Award, 2022
- James H. Greene Outstanding Graduate Educator Award, 2021
- Health Resources and Service Administration; Co-PI; \$1,000,000; 2021-2024
- Agency of Community Living; Co-PI; \$988,080; 2021-2023
- National Science Foundation Graduate Research Fellowship-Emily Garcia; Co-PI; \$46,0000; 2020-2021
- Indiana Organization of Nurse Leaders; Co-I; \$10,000; 2021
- IUPUI – Indiana CTSI; Co-PI; \$17,792; 2020-2022
- State of Montana; Co-PI; \$53,483; 2020
- The Seed for Success Award - Purdue University EVRP, 2019
- Public Health Nursing (Journal) Best Paper 2019
- U.S. Department of HHS, Administration for Community Living; Co-investigator; \$992,500; 2017-2020
- Indiana Family and Social Services Administration; Co-PI; \$3,997,000; 2018-2020
- American Nurses Foundation; Co-investigator; \$5,000; 2018-2019
- Minnesota Department of Human Services; Co-Investigator; \$481,803; 2018-2022
- Student Paper Award – Academy Health Long Term Services and Support Interest Group, 2016
- Teaching Assistant Award – Purdue University Statistics Department, 2013

OTHER ACTIVITIES

- Nursing Representative to the College of Health and Human Sciences Research Committee (2024-Present)
- Indiana's Multi-Sector Plan on Aging Research and Data Workgroup Member (2024)
- Indiana Dementia Strategic Plan Research Working Group Chair (2024-Present)
- Statistical Advisor, Journal of Applied Gerontology (2022-Present)
- Editorial Board Member, Journal of Social Policy and Aging (2022-Present)
- School of Nursing Health Equities Cluster Hire Search Committee (2021-22)
- School of Nursing Awards Committee, Chair (2020-2022)
- School of Industrial Engineering Seminar Committee (2020-Present)
- School of Industrial Engineering Safety Committee (2019-2020)
- College of Health and Human Sciences Research Strategic Planning Committee (2019-20)
- Gerontological Society of America Member (2019-Present)
- School of Nursing Research Committee (2018-20, 23-24), co-chair (2019-2020), Chair (2022-2023)
- School of Nursing Tenure Track Search Committee (2018-2020)
- National League for Nursing member (2018-Present)
- Academy Health member (2015-Present)
- President of Purdue Graduate Statistics Organization (2015-16 academic year)
- Lafayette Transitional Housing volunteer (2015-2019)
- American Statistical Association member (2013-Present)
- Usher coordinator (Faith West Church, West Lafayette 2013-Present)
- 4 Years Varsity Football (Case Western Reserve University 2007-2010)