

Dr. Joseph T. Steensma, CIH, MPH

Career Summary: Award winning teacher. A proven and tested leader in the area of environmental health and sustainability. Innovator. Problem Solver. Successful entrepreneur. Veteran of the United States Army.

EDUCATION

2010 Doctor of Education in Organizational Leadership

Indiana Wesleyan University, Marion, IN

Dissertation: Steensma, J. (2010): Transformational leadership and safety in steel mills: A quantitative study in a high-hazard environment, Indiana Wesleyan University, Indiana, United States

2008 Master of Arts in Organizational Leadership

Indiana Wesleyan University School of Business, Marion, IN

1996 Master of Public Health

Saint Louis University School of Public Health, Saint Louis, MO Concentrations: **Biostatistics** and **Environmental Health**

1994 Bachelor of Science

University of Saint Francis, Fort Wayne, IN Major: **Biology**

ACADEMIC EMPLOYMENT

Washington University in St. Louis

2013-Present Professor of Practice – Social Entrepreneurship and Public Health

- Conduct research in the area of environmental health, environmental exposures, and the intersection of policy, environment, and enterprise.
- Advise the School and University partners on strategic initiatives relative to environmental health and environmental justice.
- Work with faculty, staff, researchers and students to commercialize research initiatives.
- Work with faculty and students to take entrepreneurial approaches to tackling environmental challenges.
- Develop linkages between the VC, private equity, and investment community and the school to promote enterprise as a mechanism to solve complex social problems.
- Teach courses in entrepreneurship, environmental health, and biostatistics

Royal Academy of Engineering, London (United Kingdom)

2023-Present Visiting Professor of Innovation and Entrepreneurial Leadership

- Teach courses in environmental health, sustainability and economic development.
- Assist students and faculty in developing technologies to anticipate, measure and control environmental exposures.
- Work with the academic, commercial, governmental, and non-governmental entities in London and across the UK to develop solutions to large scale environmental social issues that could be positively impacted through innovation and engineering.

University of Wollongong, New South Wales, Australia

- 2015-Present** Professorial Fellow, Entrepreneurship and Public Health
- Work with faculty, students, and researchers to commercialize research initiatives.
 - Teach courses in leadership and public health.
 - Train faculty and students in sustainability and environmental health.
 - Mentor business owners and innovators through the start-up and early funding stages of entrepreneurship.

University of St. Francis, Fort Wayne, Indiana

- 2010-2013** Professor Business, Busse School of Business and
Professor of Environmental Science, School of Arts and Science
Program Director: EPIC and Entrepreneurship Programs

- 2011 -2013** Program Director, MBA in Sustainability 2009-2012
Program Director: Masters of Science in Environmental Science

- 1998-2009** Adjunct Professor; Biology and Environmental Science

ACADEMIC SERVICE (Outside of faculty responsibilities)

- 2024-Present** Universidad Europea de Canarias
- University-Industry Innovation Network (UIIN) Mentor for entrepreneurship programs

- 2001-2009** University of Saint Francis Board of Trustees
- Affairs Committee
 - Environmental Science Advisory Committee

SCHOLARSHIP OF INTEGRATION & OTHER BUSINESS EXPERIENCE- Past employment that involved the integration and interpretation of knowledge within the discipline of entrepreneurship, leadership, sustainability, and environmental/occupational health.

2000-2007 Industrial Solutions Group, Inc (ISG), Fort Wayne, Indiana

President and Chief Executive Officer

- Founded and majority owner a premier health services consulting firm that expanded its services from environmental and occupational health services to include process engineering, business process improvement, environmental engineering, laboratory, and public health services. We also expanded our reach, which included projects throughout the United States and dozens of countries.
- Grew the enterprise from a small operation in Fort Wayne, Indiana to an international firm servicing clients throughout the United States and around the world.
- Clients included over 350 of the Fortune 500, as well as many governmental entities.
- Employed Lean Enterprise principles and exceptional operating systems to drive down cost, reduce waste, improve productivity, improve profitability, and improve customer satisfaction.
- Grew the company from a small start-up to a well-known, internationally recognized brand.
- Named Finalist for Ernst and Young's Entrepreneur of the Year in 2002 for efforts leading to the development of ISG, Inc. and the markets it served.
- Divested of ISG and Quantus Analytical, LLC (co-founder) to Concentra (Humana),

negotiating an agreement that acknowledged the unique synergy ISG and our sister company brought to the larger enterprise of Concentra.

- At the time of the sale of the company, ISG was rated by Dunn and Bradstreet as being in the 99th percentile of companies with regard to financial strength and other metrics of financial performance.

1999 – 2000 Allied Worldwide Fort Wayne, IN/Naperville, IL

Director, Safety, Risk Management, and Loss Prevention

- Managed and motivated a professional staff, focusing on their professional development and decision making skills. In so doing, directed one of the worlds largest companies to it's best year ever with regard to environmental and safety metrics.
- Through statistical analysis and a methodical approach to loss prevention, we had a 30% reduction in injury claims.
- Year over year, preventable accidents were down 25% over all, and nearly 50% in the poorest performing division; by far and away the best performance ever.
- Using a "SixSigma" approach to injury reduction, the company realized a 36% reduction in workers compensation claims, and a 40% reduction in lost time injury claims.
- Implemented an ISO 14001 Environmental Management System, delivering tangible returns within the first six months of implementation.

1997 -1999 Ingersoll-Rand: Production Equipment Group (PEG)

Director, Environmental Affairs and Occupational Health

- Developed policies and procedures related to environmental and occupational health programs at 12 facilities throughout North America.
- By establishing a systematic approach to injury/illness prevention we realized a 33% reduction in OSHA recordable accidents/illnesses throughout the PEG.
- Facilitated a change in the fundamental philosophy of environmental safety and health throughout the Production Equipment Group from one of cost containment, to one of EH &S as value added activities.
- During my tenure there was a thirty-five percent reduction in ergonomic injuries throughout the PEG and workers compensation claims were down accordingly.

1995-1997 Weldon Springs Remedial Action Site St. Charles, MO

Environmental and Occupational Health Project Specialist

- Protected workers, the community, and the environment from being exposed to the various contaminants found at the site (radioactive and chemical)
- Oversaw environmental and occupational health at all of the hazardous materials and hazardous waste (RCRA) storage areas on the site as well as the transport of these substances (DOT).
- Dealt with environmental regulation and compliance issues on a daily basis including RCRA, CERCLA, CAA, OSHA, DOT and other standards
- Performed industrial hygiene duties such as personal air monitoring, noise surveys, and operation and upkeep of direct reading instruments

Other businesses founded, advised, and/or currently owned:

- 2017- Present** ***Applied Particle Technologies, LLC (science advisor):*** High-tech company devoted to solving public health problems (such as asthma and occupational disease) associated with particulate and chemical exposures that occur at home, work, or the ambient environment
- 2015- Present** ***Global Impact Fund (Partner, Founding investor, investment committee member):*** Private equity investment fund of the Global Good Fund (Washington, DC). Seeks to invest in early phase, high-growth, and high ‘social return on investment’ companies.
- 2014-Present** ***Health Communication Impact, LLC (Cofounder):*** Company specializing in health communication and clinical trials recruitment
- 2008-present** ***Winergy Services, LLC (Cofounder; Board of Directors):*** Environmental Services company with a wide range of services aimed at reducing the environmental footprint of operations within governmental agencies and private firms. Successful exit; private sale.
- 2002-2007** ***Quantus Analytical, LLC (Cofounder):*** Environmental microbiology and microscopy laboratory. Exit through divestment.

MILITARY EXPERIENCE

**1999-2005 United States Army Reserve (Army Medical Department-Preventive Medicine)-
Environmental Science Officer (Honorably Discharged)**

Detached from the 1307th Preventive Medicine Detachment, Gainesville FL, to the National Army Medicine Department Augmentation Detachment (NAAD), Fort McPherson, GA

- Provided industrial hygiene, safety, and environmental health services to protect troops, and communities in which they operated, from chemical, biological, and physical agents
- Developed expertise in biological, chemical, and physical exposures and trained personnel as to the hazards associated with agents and how to prevent injury and/or illness as a result of such exposures.
- Conducted training of other personnel on subjects related to respiratory protection, biological agents, and public health concerns

COMMUNITY SERVICE SCHOLARSHIP OF APPLICATION

2024- Present *Hatch! (Taronga Zoo, Sydney, Australia)*

Hatch! is an incubator and accelerator at the Taronga (Sydney) Zoo. Here I mentor dozens of companies focused on developing technologies and businesses committed to improving biodiversity around the world.

2014- Present *Better Family Life, LLC*

At Better Family Life, LLC (BFL) I teach classes and provide consultation on entrepreneurship. BFL supports low-income individuals in improving their lives and communities. In my

capacity, I have advised hundreds of nascent entrepreneurs acquire the capital (social, political, financial, intellectual) needed for their businesses.

2016-Present *Board of Directors Student Enterprise Program, Skandalaris Center, Washington University*

Support and oversee student entrepreneurs who start, operate and divest of businesses during their time at Washington University.

2019- 2023 *Bioscience Core Skills Institute, Inc*
Board Member, Treasurer

A not-for-profit corporation focused on helping the biotechnology sector develop the labor force needed to meet the demands of biotech companies around the United States. I served as treasurer of the organization for both of my two year terms on the Board of Directors.

December 2004- September 2013 *Allen County (Indiana) Board of Health,*

Vice President January, 2005- January 2006; President January 2008- September 2013

As a member of the Board of Health, and later as President of the Board, I led the effort to make the community a healthier place to live and work. I worked with various individuals and entities to achieve significant improvements in public health within our community. I was widely regarded by members from both political parties as being 'level-headed' and technically capable. I was elected unanimously to be the President of the Board despite being in a distinct minority (with regard to political affiliation).

September 2011- January 2014 *Board Member; Unity Performing Arts Foundation.*

UPAF and its affiliate organization, Voices of Unity, are organizations with a focus on empowering and developing young people in the areas of character, artistry, and leadership.

2001-2009 *University of Saint Francis Board of Directors*
Academic Affairs Committee

2006-2008 *City of Fort Wayne – Green Ribbon Commission*

Appointed by the Mayor of Fort Wayne to serve on the “Green Ribbon Commission”, which is a committee that was charged with improving environmental decision-making in Fort Wayne

2000- 2004 *Advance Community Development of Board of Directors*

1995-1998 *Grace Hill Americorps Project, Environmental Impact Advisor*

HONORS

- 2024: Outstanding Faculty Award (undergraduate); Washington University in St Louis
- 2024: Keynote Speaker: Royal Academy of Engineering VP Annual Conference, Birmingham, England, UK. “Integrating Entrepreneurship in Engineering Education”
- 2023-26: Royal Academy of Engineering Visiting Professor of Innovation and Entrepreneurship, London
- 2023: *Excellence in Mentoring*: Skandalaris Center for Interdisciplinary Innovation and Entrepreneurship; Washington University in St. Louis
- 2022: *Excellence in Entrepreneurship Education*- University-Industry Innovation Network Conference (University of Amsterdam)
- 2020-21: *Teacher Excellence Award* -Washington University, George W Brown School of Social Work
- 2019: *Delta Omega Society*; The honor society for public health faculty inductee.
- 2016-2017: *Teaching Excellence Award*- Washington University, Brown School of Social Work
- 2013-2014: *Teaching Excellence Award*-Washington University, Brown School of Social Work
- September 2013: *Distinguished Service Award*-City of Fort Wayne
- June 2002: *Ernst and Young Entrepreneur of the Year Award Finalist*
- May 1996: 3M Industrial Hygiene Scholar

RESEARCH INTERESTS

ORGANIZATIONAL LEADERSHIP: The role leadership plays in helping organizations achieve improved operations and impact; of particular interest is the effect of transformational leadership to impact environmental and occupational health.

SUSTAINABILITY: The role of entrepreneurship and enterprise in solving complex and interconnected problems that have economic, ecologic, and cultural considerations.

PUBLIC HEALTH: General interest in health disparities and how to eliminate them.

COMMERCIAL DISSEMINATION: Leveraging commercialization to advance research and discovery to improve the human condition through.

SELECTED PUBLICATIONS

1. Fogarty, A. E., Wilson, A., Godambe, M., Shinde, N., Gou, C., Decker, G., & **Steensma, J.** (2023). The Carbon Footprint of Epidural Steroid Injections: A Pilot Study. *PM&R*. <https://doi.org/10.1002/pmrj.13111>
2. Lawrence TK, **Steensma JT**, Oyebola OO, Akuwa EI, Rhea CL, Subasinghe RP, Nukpezah J, and Siriwardena SN, 2023. Lean management in aquaculture: A practical guide for smallholder fish farmers. Penang, Malaysia: WorldFish. Manual: 2023-18. · Jun 23, 2023
3. Subasinghe R, Siriwardena SN, Byrd K, Chan CY, Dizyee K, Shikuku K, Tran N, Adegoke A, Adeleke M, Anastasiou K, Beveridge M, Bogard J, Chu L, Fregene BT, Ene-Obong H, Cheong KC, Nukpezah J, Olagunju O, Powell A, **Steensma J**, Williams G, Shelley C and Phillips M. 2021. Nigeria fish futures - Aquaculture in Nigeria: Increasing Income, Diversifying Diets and Empowering Women. Report of the scoping study. Penang, Malaysia: WorldFish. Program Report: 2021-16.
4. Garg, R., **Steensma, J. T.**, Luke, A. A., Huang, K., Golla, B., Greer, R., & Maddox, K. E. J. (2021). Helpline Calls Associated With Preventable Emergency Department Utilization. *American Journal of Preventive Medicine*, 61(5), 729-732.
5. Verdecias N, Garg R, **Steensma J**, McQueen A, Greer R, Kreuter MW (2020). Expressed and unexpressed social needs in low-income adults in the U.S. Health Soc Care Community. 2020 Dec 30. doi: 10.1111/hsc.13265. Epub ahead of print. PMID: 33378603.
6. **Steensma, J**, Nukipezah, J, Tran N, Shikuku K. Reducing Post-Harvest Loss in the Nigerian Aquaculture Sector Contributes to Economic Development. The Chicago Council on Global Affairs. <https://www.thechicagocouncil.org/commentary-and-analysis/blogs/reducing-post-harvest-losses-nigerias-aquaculture-sector-contributes>
7. Wang, X, **Steensma, J**, Bailey, M, Feng, Q, Padda, H & Johnson, K (2018): Characteristics of The Cancer Genome Atlas cases relative to U.S. general population cancer cases. *Brit Journal of Cancer*
8. **Steensma, J (2018)**. If Necessity is the Mother of Invention, then Profit is Certainly the Father. Social Change Central, Sydney Australia <https://www.socialchangecentral.com/necessity-mother-invention-profit-certainly-father/>
9. Rivera-Núñez, Z., Pan, Z., Dulience, B., Becker, H., **Steensma, J.**, Hobson, A., & Iannotti, L. L. (2018). Water metal contaminants in a potentially mineral-deficient population of Haiti. *International journal of environmental health research*, 28(6), 626-634.
10. **Steensma, J.**, Kreuter, M. and Casey, C. (2018). Enhancing Dissemination Through Marketing and Distribution Systems: A Vision for Public Health. In: R. Brownson, G. Colditz and E. Proctor, ed., *DISSEMINATION AND IMPLEMENTATION RESEARCH IN HEALTH*, 2nd ed. New York: Oxford University Press.
11. **Steensma, J.** (2010): Transformational leadership and safety in steel mills: A quantitative study in a high-hazard environment, Indiana Wesleyan University, Indiana, United States
12. Smits, W., **Steensma, J.T.**, Westfall, M., & Schlie, A.R. (2005). Hypersensitivity pneumonitis resulting from exposure to metalworking fluid with triazine. *Annals of Allergy, Asthma & Immunology*, 62, 116-117.

13. Letz, K. L., Smits, W. L., Willison, H. C. G., Jeannie, K., & **Steensma, J. T.** (2002). Efficacy and safety of compounded budesonide combination aerosol in adult asthmatics. *Chest*, 122(4), 187S-187S.

SELECTED GUEST LECTURES AND PRESENTATIONS

1. **Steensma, J:** Leveraging capitalism and capital markets to address the UN Sustainable Development Goals, The Engineering and Design Institute (TEDI), London, December 8, 2023
2. **Steensma, J:** Biodiversity and Human Health in a rapidly changing climate, California Lutheran University, Thousand Oaks California, April 13, 2019
3. **Steensma, J:** From Pearl of the Antilles to Peril in the Antilles: Haiti as a case study in public health, University of Wollongong, Wollongong, NSW, Australia, August 18, 2020
4. **Steensma, J:** Operational Excellence in Early Stage Ventures, University of Wollongong (iAccelerate), Wollongong, NSW, Australia, August 11, 2017
5. **Steensma, J:** From Climate Change to Clamydia: Can capitalism save the day? iAccelerate Impact Conference, University of Wollongong, Wollongong, NSW, Australia, August 11, 2016
6. **Steensma, J:** Birds, Biology, and Business: One Man's Journey from the Backwoods to the Board Room...and How Birds Led Him There. TEDx Gateway Arch, Feb 21, 2015
7. **Steensma, J:** The Impact Factor: What is the true measure of social enterprise?, Washington University School of Medicine, Bio-entrepreneurship Core, October 8, 2014
8. **Steensma, J:** Creating a culture of "Intra-preneurship", Washington University Library System, October 31, 2013
9. **Steensma, J:** Sustainability and Business: The roles of environmental policy and private enterprise in achieving sustainability. Washington University Constitutional Law Society, October 21, 2013
10. **Steensma, J:** From Idea to Enterprise: Entrepreneurial thinking for engineers, Marquette University College of Engineering, November 2, 2012
11. **Steensma, J:** Industrial hygiene's ten most unrecognized hazards. American Society of Safety Engineers, February 11, 2011
12. **Steensma, J:** Grassroots public health legislation: Implementing a smoking ban in Fort Wayne, Indiana. Northeast Indiana Symposium of Alcohol, Tobacco, and Other Drugs, November 2010
13. **Steensma, J.,** Berthold, D.: Managing risk by influencing behaviors. Midwest Environmental Health and Safety Conference, Cincinnati, OH, March 2005
14. **Steensma, J:** Indoor Air Quality: Toxicology, Pathology, and Allergy. Midwest Environmental Health and Safety Conference Fort Wayne, IN, April 2005
15. Smits WL, **Steensma J**, Westfall M, Schlie AR. Hypersensitivity Pneumonitis Resulting from Exposure to Metalworking Fluid with Triazine. Presented at the 2004 Annual Meeting of the American College of Allergy, Asthma, & Immunology; Monday, November 15, 2004; Boston.

Research Support

P50 CA95815

Kreuter (PI) 9/1/2008 — 8/31/2015

NCI

Communication Based Strategies to Reduce Cancer Disparities

This center seeks to enhance the effectiveness of cancer communication among African Americans. This research will identify strategies for integrating cancer communications within the cultural norm, values, and beliefs of various groups of African Americans, evaluate the effects these strategies, and explain the mechanisms through which they influence cancer-related beliefs and practices.

Role: Investigator

US48-DP-001903 SIP066

Kreuter (PI) 9/30/2004 — 9/29/2014

CDC

Health Promotion and Disease Prevention

Research Center

Using small media to increase breast and cervical cancer population-based prevention activities.

Role: Investigator

P50 CA95815

Kreuter (PI) 9/1/2008 — 8/31/2015

NCI

Communication Based Strategies to Reduce Cancer Disparities

This center seeks to enhance the effectiveness of cancer communication among African Americans. This research will identify strategies for integrating cancer communications within the cultural norm, values, and beliefs of various groups of African Americans, evaluate the effects these strategies, and explain the mechanisms through which they influence cancer-related beliefs and practices.

Internal Funding

Steensma (PI)

7/01/17 – 12/31/17

Global Programs Office, Washington University in St. Louis

“Protecting fisheries in Haiti: a pilot market study of cost trends and fish maturity in coastal communities”.

Recruiting underserved populations into clinical trials with customizable media.

1R44CA192442 (SBIR)

National Institutes of Health /National Cancer Institute

PI: Charlene A Caburnay (Health Communication Impact, LLC).

Funding period: September 1, 2015 –August 30, 2018.

Total costs: \$995,210.

Role: *Consultant for Health Communication Impact*

Pilot Grant Williams (PI) 7/1/2017-12/31/2018
International Center for Energy, Environment and Sustainability
Investigating the Air Quality of Haiti and Possible Linkages Between Nutrition, Air Pollutant Exposure, and Anemia in Haitian School-Aged Children
Role: Co-Investigator

7200AA18CA00030 Nukipezah/Steensma (PI) 12/21/2018-12/20/2019
USAID
From Harvest to Plate: An Analysis of the Aquaculture Coldchain in Nigeria
An investigation of post-harvest loss in Nigerian aquaculture sector
Role: Principal Investigator

G000003821 Nukipezah/Steensma 07/01/2020 -06/30/2023
USAID
Improving Efficiency in the Nigerian Aquaculture Sector by Employing Lean Production Systems
Role: Co-Principal Investigator

OVERSEAS ENGAGEMENTS

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|----------------------|---|
| 2022-Present | Royal Academy of Engineering Visiting Professor, London, UK |
| 2022-Present | Mentor, Macquarie University Incubator, Sydney, Australia |
| 2018-Present | Researcher, Nigeria |
| 2015- Present | Professorial Fellow, University of Wollongong, Australia |
| 2010-Present | Field Biology and Instruction, Costa Rica |
| 1994-Present | Wintering neotropical migrant bird assessments, Andros Island, Bahamas and Costa Rica |
| 2008-Present | United States Air Force – Annual trips to Andersen Air Force base, Guam |