

# Michael D. Sherwin, Ph.D., P.E., CLSSBB

Assistant Professor of Supply Chain Management  
Palumbo-Donahue School of Business  
Duquesne University  
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## I. PROFESSIONAL PREPARATION AND EXPERIENCE

### A. EDUCATION

- Ph.D. Mississippi State University  
Industrial and Systems Engineering  
August 2018
- M.B.A. Carnegie Mellon University  
May 2008
- M.S. Penn State University  
Industrial Engineering  
December 2001
- B.S. Penn State University  
Materials Science and Engineering  
December 1999

### B. WORK HISTORY

#### 1. Academic Appointments

- 2022 – Present Assistant Professor of Supply Chain Management  
Duquesne University  
Palumbo-Donahue School of Business
- 2020 – 2022 Assistant Professor of Industrial Engineering  
University of Pittsburgh  
Swanson School of Engineering
- 2017 – 2021 Adjunct Faculty, Supply Chain Management  
Duquesne University  
Palumbo-Donahue School of Business

2016 – 2021	Adjunct Faculty, Business Chatham University
2012 – 2016	Adjunct Faculty, Engineering Robert Morris University

## 2. Non-Academic Appointments

### **Next Ridge Technologies, LLC**

2020 – Present	Principal Consultant Provide consulting and training services to organizations on supply chain, quality, and operations management. Licensed provider of ASQ training materials.
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### **Curtiss Wright**

2019	Lead, Forensic Analysis Responsible for developing and implementing methodologies to identify the problem, root causes and contributing causes, and develop corrective and preventive actions for a reactor coolant pump fault at the Sanmen 2 AP1000 reactor in China. Co-authored report that was submitted to the customer and regulatory authority for approval. Led forensic material analysis and laboratory testing to determine failure modes and ultimate causes. Member of team that presented findings to the customer, utility, and regulatory authorities. Conducted quantitative probabilistic risk assessments to ascertain probability of recurrence. Developed methodology for in-situ inspection to monitor installed plant equipment. Coordinated root cause analysis process and facilitated brainstorming, FMEA, and other sessions.
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2014 – 2019	Senior Manager, Supplier Quality Excellence Responsible for establishing the organization's transformation processes related to supplier performance based on Lean and Six Sigma methodologies. Implement APQP and PPAP methodologies with key suppliers to prevent quality and delivery issues. Establish leader standard work and visual management tools for improved resource planning. Additional responsibilities include managing the site's internal audit program.
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- 2013 – 2014      Senior Manager, Process Improvement  
Responsible for establishing the division's Continuous Improvement Organization and chartering the implementation strategy. Coach, lead, and facilitate subsequent deployment activities utilizing Lean and Six Sigma tools to drive improvements in Safety, Quality, Delivery, and Cost. Implement and serve as Chairperson for the division's Continuous Improvement Steering Committee. Align, coach, and direct the work of Lean Six Sigma Master Black Belt and Continuous Improvement Engineers. Facilitate kaizen events. Lead Root Cause Analysts, improve division's corrective action request process, and facilitate root cause analysis and problem solving sessions. Develop and conduct training focused on Six Sigma tools for the Continuous Improvement Organization as well as for the division. Facilitate the division's Hoshin planning process.
- 2012 – 2013      Manager, Quality System Excellence  
Responsible for the Root Cause Analysis and Corrective Action process team, Quality Assurance process improvements, implementing data-based decision methodologies, Quality Council, leading monthly leadership Quality Review process, Strategy Deployment, and supporting continuous improvement initiatives across the division.
- 2011 – 2012      Manager, Quality Assurance Engineering  
Responsible for Quality Assurance Engineering (Defense, Process, and Commercial Nuclear market segments), Supplier Quality Engineering, improving Quality System processes through the use of Lean and Six Sigma methodologies, leading Hoshin Planning and Strategy Deployment initiatives, and serving as an internal consultant for Lean deployment throughout the division.

### **Precision Therapeutics**

- 2010 – 2011      Director, Quality Systems and Improvement  
Reporting to the CEO, responsible for directing, establishing, and improving all corporate quality management systems (cGMP-based environment), which included Operational Excellence, Quality Control, Laboratory Training, and Regulatory Affairs. Involved in and led bioinformatics studies used to identify causal relationships between outcomes and process variables.

2009 – 2010      Operational Excellence Leader  
Responsible for coaching and mentoring members of the Operations team in problem-solving using Lean manufacturing and Six Sigma methodologies. Led, developed, and implemented Lean Six Sigma training, metrics, and continuous improvement programs. Through the use of statistical methods, led root cause analysis investigations.

**Kennametal**

2007 – 2009      Operations Manager and Site Leader  
Site Leader responsible for managing and integrating all facets of operations related to a newly acquired business, which included overseeing production, Lean manufacturing, maintenance, quality, safety, planning, inventory control, customer service, financial reporting, and purchasing functions. Implemented the Kennametal Value Business System and led cultural change based on Lean principles.

2007      Project Manager  
Responsible for managing a variety of manufacturing and process improvement projects as assigned. Utilized Lean principles in designing and establishing a production system to produce Defense products, which included transferring material science and production technology knowledge from an international manufacturing facility to the United States. As part of this project, directed an international cross-functional project team that included more than 30 team members. Additional projects focused on continuous improvement, new product development, Six Sigma, and capital purchases.

2005 – 2007      Manager, Quality and Manufacturing Engineering  
Responsible for designing and implementing standardized quality systems throughout the facility. Analyzed key manufacturing data and recommended continuous improvement and optimization projects. Developed systems and procedures and conducted training to prepare the facility for ISO9001:2000 certification. Directed and oversaw the day-to-day activities of the material analysis lab.

### **Crucible Compaction Metals (now ATI)**

2004 – 2005      Materials and Process Engineer  
Responsible for metal powder gas atomization process engineering, product engineering for the Aerospace and Process industries. Using designed experiments, developed new powder metal alloys for use in Aerospace and Defense applications.

### **AMTellelect, Inc.**

2002 – 2004      Marketing Engineer  
Part of a start-up team that established a materials research center with a core mission of decreasing product incubation periods by assisting customers in design for manufacturability. Worked with customers to develop cost-effective design for manufacturability solutions using metal injection molding. Responsible for data-driven market research to assess new business development opportunities and alignment with strategy.

### **Westinghouse Electric Company**

2001 – 2002      Industrial Engineer  
Responsible for capital improvement projects, supporting maintenance operations, and process improvements.

## **C. PROFESSIONAL CERTIFICATIONS**

2023	ASCM Supply Chain Planning Certificate
2021 – Present	ASQConnEx Licensed Training Partner
2016 – Present	Registered Professional Engineer (PA, PE084940)
2010 – Present	ASQ Certified Lean Six Sigma Black Belt
2009 – Present	ASQ Certified Lean Six Sigma Green Belt
2017	Curtiss Wright Way Level I Practitioner
2014 – 2011	ASME NQA-1 Qualified Lead Auditor
2008	Graduate, Dale Carnegie Leadership
2007	Kennametal, Six Sigma Green Belt
2007	Graduate, Center for Creative Leadership
2005	QFD Institute, Quality Function Deployment Green Belt
2005	Kennametal, Failure Mode and Effects Analysis Green Belt
2005	Kennametal, Quality Function Deployment Green Belt

## **D. MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS**

2025 – Present	Council of Supply Chain Management Professionals
2017 – Present	Institute of Industrial and Systems Engineering
2013 – Present	Institute for Operations Research and Management Science
2011 – Present	American Society for Quality
2020 – 2022	American Society for Engineering Education
2014 – 2017	Nuclear Industry Assessment Committee

## **II. TEACHING**

### **A. GRADUATE COURSES TAUGHT**

#### **1. Duquesne University**

##### **SCMG 527: Supply Chain/Operations Management**

Fall 2025  
Fall 2024  
Fall 2023  
Fall 2022  
Summer 2019  
Summer 2018  
Summer 2017

##### **SCMG 616: Supply Chain Process Improvement (LSSGB)**

Spring 2025  
Spring 2024  
Spring 2023

##### **SCMG 620: Forecasting and Demand Management**

Summer 2025  
Summer 2024  
Summer 2023  
Summer 2021

##### **SCMG 639: Supply Chain Management Strategic Capstone**

Spring 2025

##### **SCMG 727: Supply Chain / Operations Management**

Fall 2025  
Fall 2024  
Fall 2023  
Fall 2022

**2. University of Pittsburgh**

**IE 2025: Facility Layout and Material Handling**

Fall 2021

Fall 2020

**IE 2203: Warehouse Operations**

Spring 2022

Spring 2021

**3. Chatham University**

**BUS 513: Logistics and Operations**

Fall 2016

**BUS 698: Strategy and Entrepreneurship**

Spring 2017

**4. Jack Welch Management Institute**

**JWI 550: Operations Management**

Fall 2019

**B. UNDERGRADUATE COURSES TAUGHT**

**1. Duquesne University**

**SCMG 267: Supply Chain Operations Management**

Fall 2024

**SCMG 375: Supply Chain Process Improvement (LSSYB)**

Fall 2025

Spring 2025

**SCMG 480: Forecasting, Production, and Inventory Management**

Fall 2025

Fall 2024

Spring 2024

Fall 2023

Spring 2023

Fall 2022

**2. University of Pittsburgh**

**ENGR 0038: Plus3 Global Experience**

Summer 2022

**IE 1080: Supply Chain Analysis**

Spring 2022

Spring 2021

Spring 2020

**IE 1090: Senior Design Capstone Course**

Spring 2022

Fall 2021

Spring 2021

Fall 2020

Summer 2020

**IE 1055: Facility Layout and Material Handling**

Fall 2021

Fall 2020

**IE 1072: Design of Experiments**

Fall 2021

Fall 2020

Spring 2020

Fall 2019

**IE 1203: Warehouse Operations**

Spring 2022

Spring 2021

**3. Chatham University**

**BUS 301: Continuous Improvement Methods**

Spring 2021

Fall 2020

Spring 2020

Spring 2018

Spring 2017

**BUS 413: Logistics and Operations**

Fall 2020

Fall 2019

Fall 2018

Fall 2017

Fall 2016

**BUS 423: Continuous Improvement Project Course**

Spring 2020



#### **4. Robert Morris University**

##### **ENGR 3680: Introduction to Quality Engineering**

Spring 2016

Fall 2015

Spring 2015

Spring 2014

Spring 2013

Spring 2012

##### **ENGR 3800: Optimization Techniques**

Fall 2013

### **C. ACADEMIC ADVISEMENT OR SUPERVISION**

#### **1. Thesis Committees as a Member**

##### **University of Pittsburgh**

2022

Robert Lois

MS, Mechanical Engineering

University of Pittsburgh

Thesis: "Supply Chain Risk Assessment through Data-Driven Bayesian Networks"

#### **2. Graduate Advisees/Supervisees**

##### **Duquesne University**

2025 – Present

Maximilian Hradecny

MBA/MS in Analytics and Information Management

School of Business Administration Graduate Assistant

Research Projects: Supplier Obsolescence Prediction,

Current Perceptions of Operational Excellence in Small-to

Medium-Sized Enterprises, Predicting Supplier

Performance

2023 – 2024

Jacob Hanzlik

MBA

School of Business Administration Graduate Fellow

Research Project: Multi-Stage Food Manufacturing

Scheduling Optimization

### **The University of Texas at San Antonio**

2024 – Present     Dai Nam Nguyen  
PhD Candidate  
Dept of Mechanical, Aerospace, and Industrial Engineering  
Research Project: Multi-Stage Food Manufacturing  
Scheduling Optimization

### **Duquesne University – Lean Six Sigma Green Belt Candidates**

2025 – Present     Leila Leskuski  
MS, Supply Chain Management  
Project Sponsor: Highmark Health  
Project: Improve Procurement Workflow  
Certification: In Process (started Fall 2024)

2025 – Present     Malco Diletia  
MS, Supply Chain Management  
Project Sponsor: Heidelberg Materials  
Project: Minimize Freight Deadheading  
Certification: In Process (started Spring 2025)

2025 – Present     Marty Elliott  
MS, Supply Chain Management  
Project Sponsor: Curtiss Wright  
Project: TBD  
Certification: In Process (started Spring 2025)

2025 – Present     Monique Gomes  
MS, Supply Chain Management  
Project Sponsor: Heidelberg Materials  
Project: Fleet Decision Tool  
Certification: 2025

2025 – Present     Michael Kamphandira Jere  
MS, Supply Chain Management  
Project Sponsor: Heidelberg Materials  
Project: Bulk Material Inventory Optimization  
Certification: In Process (started Spring 2025)

2025 – Present     Sydney Stone  
MS, Supply Chain Management  
Project Sponsor: Stover & Company  
Project: Adobe Shipstation Integration  
Certification: In Process (started Spring 2025)

2025 – Present	<p>Ferwa Zahid</p> <p>MS, Supply Chain Management</p> <p>Project Sponsor: Heidelberg Materials</p> <p>Project: Improve Yard Layout and Flow</p> <p>Certification: In Process (started Spring 2025)</p>
2025 – Present	<p>Olufunmilayo Taiwo</p> <p>MS, Supply Chain Management</p> <p>Project Sponsor: Harrmonee, LLC</p> <p>Project: Standardization of Delegation Rules</p> <p>Certification: In Process (started Spring 2025)</p>
2024	<p>Likith Pamuru</p> <p>MS, Supply Chain Management</p> <p>Project Sponsor: Prominent</p> <p>Project: Capacity Expansion via Efficiency Improvements</p> <p>Certification: 2024</p>
2024	<p>Lakshmi Puchhakayala</p> <p>MS, Supply Chain Management</p> <p>Project Sponsor: Prominent</p> <p>Project: Capacity Expansion via Efficiency Improvements</p> <p>Certification: 2024</p>
2024 – Present	<p>Geert Bijl</p> <p>MS, Supply Chain Management</p> <p>Project Sponsor: Duquesne University SBDC</p> <p>Project: Client-Consultant Matching Process Improvement</p> <p>Certification: In Process</p>
2024 – Present	<p>Andrei Savrasov</p> <p>MS, Supply Chain Management</p> <p>Project Sponsor: Duquesne Men's Basketball Team</p> <p>Project: Availability of Drinking Water Inventory</p> <p>Certification: In Process</p>
2024	<p>Surabhi Loya</p> <p>MS, Supply Chain Management</p> <p>Project Sponsor: Kobold</p> <p>Project: Warehouse Layout Optimization</p> <p>Certification: 2024</p>

2024 – Present	<p>Bailey Miller</p> <p>MS, Supply Chain Management</p> <p>Project Sponsor: Axe &amp; Sledge Supplements</p> <p>Project: TBD</p> <p>Certification: In Process</p>
2024	<p>Mary Nyamvumba</p> <p>MS, Supply Chain Management</p> <p>Project Sponsor: Kobold</p> <p>Project: Warehouse Layout Optimization</p> <p>Certification: 2024</p>
2024	<p>Cristy Sevem</p> <p>MS, Supply Chain Management</p> <p>Project Sponsor: Duquesne University, Palumbo-Donahue School of Business, Center for Student Success</p> <p>Project: Transfer Student Process Improvement</p> <p>Certification: 2024</p>
2023 – 2024	<p>Blesson Yohannan</p> <p>MS, Supply Chain Management</p> <p>Project Sponsor: MSA</p> <p>Project: Streamlined Carton Management</p> <p>Certification: 2024</p>
2023	<p>Charles Bookheimer</p> <p>MS, Supply Chain Management</p> <p>Project Sponsor: PPG</p> <p>Project: Laboratory Pilot Batch Process Improvement</p> <p>Certification: 2023</p>
2023	<p>Benjamin Korpiel</p> <p>MS, Supply Chain Management</p> <p>Project Sponsor: Leonards Express</p> <p>Project: Reducing Deadheading and Increasing Margins</p> <p>Certification: 2023</p>
2023	<p>Axelle Sterkendries</p> <p>MS, Supply Chain Management</p> <p>Project Sponsor: GlobalPittsburgh</p> <p>Project: Streamlining the Data Management Process</p> <p>Certification: 2023</p>

2023	Emmanuella Nnodim MS, Supply Chain Management Project Sponsor: Freshens Project: Reducing Food Waste Certification: 2023
2023	Jonathan Kallon MS, Supply Chain Management Project Sponsor: Freshens Project: Reducing Food Waste Certification: 2023

### 3. Undergraduate Advisees/Supervisees

#### **Duquesne University – Sponsor for BUAD 401 Interns**

2025	Brennen Tarrant BS, Supply Chain Management Internship at Bechtel Plant Machinery, Inc. (BPMI)
2025	Zachary Singer BS, Supply Chain Management Internship at Bechtel Plant Machinery, Inc. (BPMI)
2025	Marissa Panzetta BS, Supply Chain Management Internship at Kobold
2025	Sarah Martin BS, Supply Chain Management Internship at Kobold
2024	Jazlyn Yanssens BS, Supply Chain Management Internship at Bechtel Plant Machinery, Inc. (BPMI)
2024	Noah Baumann BS, Supply Chain Management Internship at Eos Energy Storage
2024	Jazlyn Yanssens BS, Supply Chain Management Internship at Eos Energy Storage

### **Duquesne University – Undergraduate Research Assistants**

2023 – 2024	Benjamin Sadler BS, Computer Science Naval Engineering Education Consortium Researcher Research Project: "Obsolescence Prediction Toolkit in Critical Supply Chain Management"
2023 – 2024	Sarah Martin BS, Supply Chain Management Naval Engineering Education Consortium Researcher Research Project: "Obsolescence Prediction Toolkit in Critical Supply Chain Management"
2022 – 2024	Olivia Greene BS, Supply Chain Management Naval Engineering Education Consortium Researcher Research Project: "Obsolescence Prediction Toolkit in Critical Supply Chain Management"

### **University of Pittsburgh – Undergraduate Research Assistants**

2021 – 2022	Alison Linares Mendoza BS, Industrial Engineering Research Project: "Success Factors in a Project-Based Industrial Engineering Senior Design Capstone Course"
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### **Mississippi State University – Undergraduate Research Assistants**

2015 – 2018	Kennedy Brown BS, Industrial Engineering Research Project: "Identifying and Mitigating Supply Chain Risks Using Fault Tree Optimization"
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### **University of Pittsburgh – Undergraduate Student Academic Advisees**

2021 – 2022	Katrina Vongrej BS, Industrial Engineering
2021 – 2022	Yi Wei BS, Industrial Engineering
2021 – 2022	Sean Zubey BS, Industrial Engineering Student

#### **4. High School Advisees/Supervisees**

##### **Researchers**

2022 – 2024      Puraav Karnavaat  
High School Student  
Lambert High School  
Research Project: "Effect of Political Disruptions on  
Supply Chain Risk: The Cobalt Supply Chain"

#### **D. PUBLICATIONS PERTAINING TO TEACHING ACTIVITIES**

Sherwin, Michael, Alison Linares Mendoza, Renee M. Clark. "Success Factors in a Project-Based Industrial Engineering Senior Design Capstone Course." 2022 ASEE Annual Conference Proceedings. Minneapolis, Minnesota, USA. 2022.

Sherwin, Michael Daniel and Bopaya Bidanda. "Effects of Pedagogical Changes to an Engineering Capstone Course During the COVID-19 Pandemic." 2021 ASEE Annual Conference Proceedings. Virtual. 2021.

#### **E. PRESENTATIONS PERTAINING TO TEACHING**

Sherwin, Michael, "Success Factors in a Project-Based Industrial Engineering Senior Design Capstone Course", ASEE 2022 (Minneapolis, MN), July 2022.

Sherwin, Michael, "Effects of Pedagogical Changes to an Engineering Capstone Design Course During the COVID-19 Pandemic", ASEE 2021 (Long Beach, CA), July 2021.

Schmidt, David, Ahmed Dallal, and Michael Sherwin, "Jam Sessions: Design Courses & Capstones", University of Pittsburgh Swanson School of Engineering Fall 2020 Preparation Sessions, July 2020.

#### **F. HONORS AND AWARDS RECEIVED FOR TEACHING ACTIVITIES**

2025	Nominee, IISE Operational Excellence Division Teaching Award
2024	Finalist, SOBA Outstanding Teaching Award
2022	Mentor, First Place in IE Division, Engineering Design EXPO
2021	Mentor, First Place in IE Division, Engineering Design EXPO
2021	Gold Award Winner, IISE Pittsburgh Student Chapter
2020	Outstanding Regional Faculty Advisor, Northeast Region IISE

### **III. SCHOLARSHIP**

#### **A. SCHOLARLY PUBLICATIONS**

##### **1. Scholarly Journals**

Sherwin, Michael, Hugh Medal, Cameron MacKenzie, and Maximilian Hradecny. "A machine learning approach for engineer-to-order firms to predict supplier performance in critical supply chains." *International Journal of Management Science and Engineering Management* (2025): 1-19.

Zhou, Rui, Tanveer Hossain Bhuiyan, Hugh Medal, Michael Sherwin, and Dong Yang. "A Stochastic Programming Model with Endogenous Uncertainty for Selecting Supplier Development Programs to Proactively Mitigate Supplier Risk", *Omega*, ISSN 0305-0483 (2021).

Sherwin, Michael D., Hugh R. Medal, Cameron A. MacKenzie, and Kennedy J. Brown. "Identifying and mitigating supply chain risks using fault tree optimization", *IIE Transactions* 52:2 (2020): 236-254.

Sherwin, Michael D., Hugh Medal, and Steven A. Lapp. "Proactive cost-effective identification and mitigation of supply delay risks in a low volume high value supply chain using fault-tree analysis." *International Journal of Production Economics* 175 (2016): 153-163.

##### **2. Conference Proceedings**

Hurtado, Carlos, M. Amin Rahimian, Michael Sherwin. "Adaptive robust stochastic optimization of product-supply chain codesign subject to shocks." 2022 IIE Annual Conference Proceedings. Seattle, Washington, USA. 2022.

Sherwin, Michael, Alison Linares Mendoza, Renee M. Clark. "Success Factors in a Project-Based Industrial Engineering Senior Design Capstone Course." 2022 ASEE Annual Conference Proceedings. Minneapolis, Minnesota, USA. 2022.

Sherwin, Michael Daniel and Bopaya Bidanda. "Effects of Pedagogical Changes to an Engineering Capstone Course During the COVID-19 Pandemic." 2021 ASEE Annual Conference Proceedings. Virtual. 2021.



## **B. PUBLICATIONS BY MAJOR ACADEMIC PUBLISHING COMPANIES**

### **1. Book Chapters**

Drake, Matthew and Michael Sherwin. Chapter 19: Information Systems and Supply Chain Digital Transformation. In: Research Handbook on Information Systems and Society. Edward Elgar Publishing, 2024.

Sherwin, Michael D. Chapter 49: Quality Control. In: Maynard's Industrial Engineering Handbook, Sixth Edition. McGraw-Hill Standard Handbooks, 2023. Note: Authorship attributed to the University of Pittsburgh.

Sherwin, Michael D. Chapter 52: Quality Management. In: Maynard's Industrial Engineering Handbook, Sixth Edition. McGraw-Hill Standard Handbooks, 2023. Note: Authorship attributed to the University of Pittsburgh.

### **2. Professional Manuals**

Sherwin, Michael D. "COVID-19: A Wake-Up Call for Supply Chain Professionals". In: The Future of Global Supply Chains Post-Pandemic, Global Manufacturing & Industrialization Summit Knowledge Hub. August 2020.

## **C. GRANTS AWARDED**

### **1. Funded**

Agency: Office of Naval Research (NavalX)  
Title: "A Conversational AI Agent for Automating and Improving System-Level Part Obsolescence Management at the Enterprise Scale"  
Dates: May 2025 – April 2026  
Role: Co-Principal Investigator  
Funds Received: \$50,000

Agency: Duquesne University School of Business Administration  
Title: "Multi-Objective Scheduling Optimization in Perishable Multi-Stage Food Manufacturing to Minimize Waste and Maximize Service Level"  
Dates: May 2025 – August 2025  
Role: Principal Investigator  
Funds Received: \$8,000

Agency: Office of Naval Research, Naval Sea Systems Command (NAVSEA) Naval Engineering Education Consortium (NEEC)  
 Title: "Artificial Intelligence Models for Predicting Supply Chain Failures and Their Impacts"  
 Dates: August 2022 – July 2024  
 Role: Co-Principal Investigator  
 Funds Received: \$77,055

## 2. Unfunded

Agency: America Makes  
 Title: "Impact of Recycled Commercially Pure Grade 2 Titanium Feedstock on the Environmental Sustainability and Material Performance of Additive Manufacturing Operations"  
 Dates: November 2023 – October 2025  
 Role: Senior Personnel / Collaborator  
 Funds Requested: \$20,000

Agency: Department of Homeland Security Center for Accelerating Operational Efficiency at Arizona State University  
 Title: "Checkpoint and Fleet Optimized Surveillance for Border Protection"  
 Dates: July 2024 – June 2027  
 Role: Principal Investigator  
 Funds Requested: \$522,181 (Duquesne share = \$227,567)

## D. SCHOLARLY PRESENTATIONS (Presenter listed first)

Sherwin, Michael and Dai Nam Nguyen. "Multi-Objective Scheduling Optimization in Perishable Multi-Stage Food Manufacturing to Minimize Waste and Maximize Service Level", IISE Annual Conference (Atlanta, GA), May 2025.

Sherwin, Michael. "Supplier Auditing and Scorecards", Unimarket Spark 2025 eProcurement Conference (Pittsburgh, PA), May 2025.

Sherwin, Michael, "Sustainable Supply Chains" [Invited Panelist], Pittsburgh Technology Council Sustainability Conference (Pittsburgh, PA), November 2024.

Sherwin, Michael, "Maintaining Readiness Through Supply Chain Risk Management" [Invited Panelist], 2024 AAAA Cribbins Readiness Conference (Huntsville, AL), November 2024.

Sherwin, Michael, "Supply Chain Risk Management: A Framework" [Keynote Address], 2024 Department of Defense Supply Chain Risk Management Summit (Tysons, VA), June 2024.

Sherwin, Michael and Sarah Martin. "Understanding the Key Factors and Predicting Product Obsolescence in Electronic Components used in Critical Supply Chains", IISE Annual Conference (Montreal, Quebec), May 2024.

Sherwin, Michael and Olivia Greene. "Understanding the Key Factors Associated with Obsolescence Risk in Critical Supply Chains", INFORMS Annual Meeting (Phoenix, AZ), October 2023.

Sherwin, Michael, "Adapting to the Changing Landscapes in Supply Chain Management" [Invited Presentation], Future of Obsolescence Management Conference (Boston, MA), September 2023.

Sherwin, Michael, "Navigating the Complexities of Supply Chain Risks" [Invited Presentation], Zoll Medical Global Operations Summit (Chelmsford, MA), October 2022.

Sherwin, Michael, "Success Factors in a Project-Based Industrial Engineering Senior Design Capstone Course", ASEE Annual Conference (Minneapolis, MN), July 2022.

Sherwin, Michael, "Continuous Quality Improvement", Chatham University, HCI504 Project Management Guest Lecture, May 2022.

Sherwin, Michael, "Working in Industry", University of Pittsburgh Swanson School of Engineering Preparation for a STEM Academic Career Graduate Student Seminar, February 2022.

Sherwin, Michael, Bangalore Chamber of Industry and Commerce (BCIC), "Digital Supply Chains", September 2021.

Sherwin, Michael, "Effects of Pedagogical Changes to an Engineering Capstone Design Course During the COVID-19 Pandemic", ASEE Annual Conference (Long Beach, CA), July 2021.

Sherwin, Michael, Delivered Inaugural Address and served as Chief Guest for the RV College of Engineering Faculty Development Program on "Achieving Operational Excellence by Digital Supply Chain", June 2021.

Sherwin, Michael, Supply Chain Expert Discussion Leader, Global Experience Program: Virtually Exploring Global Supply Chains, University of Pittsburgh Global Experience Office, June 2021.

Sherwin, Michael, "Identifying and mitigating supply chain risks using fault tree optimization", IISE Transactions Best Papers Special Session, IISE Annual Conference (Virtual), May 2021.

Sherwin, Michael, "A Probabilistic Assessment of Supply Chain Reliability Using Monte Carlo Simulation and Fault Tree Analysis", IISE Annual Conference (Virtual), May 2021.

Sherwin, Michael, "The Future of Supply Chain Management and How IEs Play a Vital Role", IISE Northeast Student Chapter Regional Conference (Virtual), March 2021.

Sherwin, Michael, "Supply Chain Risk, Reliability, Resiliency, and Lessons Learned in 2020", Penn State University Virtual Speaker Series, March 2021.

Bursic, Karen, Michael Sherwin, and Taylor Mungin, "So you want to be an Engineer?", University of Pittsburgh Swanson School of Engineering Recruiting Series, March 2021.

Sherwin, Michael, "Working in Industry: My (Not So Straightforward) Journey from Industry to Academia", University of Pittsburgh Swanson School of Engineering Preparation for a STEM Academic Career Graduate Student Seminar, February 2021.

Sherwin, Michael, "It's Halftime: Lessons Learned from the First Half of My Career", University of Pittsburgh IISE Student Chapter Meeting, February 2020.

Sherwin, Michael, "Supply Chain Management in the Time of COVID-19", University of Pittsburgh Industrial Engineering Undergraduate Student Seminar, October 2020.

Sherwin, Michael, "It's All about the Sauce: The Secrets to Successful Process Improvement", American Society for Quality (ASQ) Human Interaction: The Other Aspect of Process Improvement Conference, September 2020.

Sherwin, Michael, "Navigating the Complexities of Supply Chain Management", Catalyst Connection Webinar, September 2020.

Sherwin, Michael and Jon Carmona, "Risk Management and Resilience Engineering in Supply Chains", IISE Columbus, OH Chapter (Chapter #1) Webinar Series, July 2020.

Schmidt, David, Ahmed Dallal, and Michael Sherwin, "Jam Sessions: Design Courses & Capstones", University of Pittsburgh Swanson School of Engineering Fall 2020 Preparation Sessions, July 2020.

Sherwin, Michael, "My (Not So Straightforward) Journey from Industry to Academia", University of Pittsburgh Swanson School of Engineering Preparation for a STEM Academic Career Graduate Student Seminar, February 2020.

Sherwin, Michael, "Identification and Mitigation of Supply Chain Risks", APICS Pittsburgh Chapter Meeting, November 2018.

Sherwin, Michael, Hugh Medal, and Cameron MacKenzie, "An Optimized Resource Allocation Approach to Identify and Mitigate Supply Chain Risks Using Fault Tree Analysis and Predicting Supplier Reliability in a Low Volume High Value Supply Chain", INFORMS (Phoenix, AZ), November 2018.

Sherwin, Michael, Hugh Medal, Cameron MacKenzie, and Kennedy Brown, "An Optimized Resource Allocation Approach to Identify and Mitigate Supply Chain Risks Using Fault Tree Analysis", INFORMS (Houston, TX), October 2018.

Sherwin, Michael, Hugh Medal, Cameron MacKenzie, and Kennedy Brown, "An Optimized Resource Allocation Approach to Identify and Mitigate Supply Chain Risks Using Fault Tree Analysis", IISE Annual Conference (Pittsburgh, PA), May 2017.

Sherwin, Michael, Hugh Medal, and Steven Lapp, "Application of Fault Tree Analysis to Supply Chain Risk Management and Mitigation", INFORMS (Philadelphia, PA), November 2015.

Sherwin, Michael, Hugh Medal, and Steven Lapp, "Risk Mitigation in a Supply Chain Infrastructure Using Fault Tree Analysis", IIE Annual Conference (Nashville, TN), May 2015.

Sherwin, Michael, Hugh Medal, and Steven Lapp, "Risk Mitigation in a Supply Chain Infrastructure Using Fault Tree Optimization", INFORMS (San Francisco, CA), November 2014.

Sherwin, Michael, "Supply Chain Risk Identification and Mitigation", Chatham University (Pittsburgh, PA), December 2015.

Sherwin, Michael, "Supplier Quality Risk Mitigation Tools: Control Plans, Risk-Based Oversight (Supplier Risk Assessment, Component/Service Risk Assessment, Gate Reviews) and Audit Process Standardization Checklist", COLIBE (Pittsburgh, PA), October 2014.

Sherwin, Michael, "Failure Modes and Effects Analysis", American Society for Quality (Pittsburgh, PA), March 2011.

Sherwin, Michael, "Identifying Process Inefficiencies", American Society for Quality (Pittsburgh, PA), February 2010.

## E. SCHOLARSHIP HONORS AND AWARDS

2024	Contributing Author to IISE Book-of-the-Year Award
2021	Outstanding Paper by New IE Educator, ASEE
2020	Honorable Mention Best Paper, IISE Transactions
2018	Inducted into The Order of the Engineer
2017	J. Ron Walsh Outstanding Industrial Engineering Graduate Student
2017	MSU Bagley College of Engineering Travel Award
2014	MSU Bagley College of Engineering Travel Award

## F. WORKS IN PROGRESS

### 1. Under Review

Sherwin, Michael, Dallas Rosson, Ben Sadler, and Sarah Martin. "The Role of Binning and Censoring on Statistical Obsolescence Forecasting Accuracy in the Absence of Covariate Predictors." Under the 2nd round of review with the *Journal of Engineering Design*.

Atkins, Ryan, Matthew Drake, and Michael Sherwin. "Supply Chain Decision Making Across Risk Domains." Under the 1<sup>st</sup> round of review with *Operations and Supply Chain Forum: an International Journal*.

Uhles, Chad, Hugh Medal, Michael Sherwin, Dallas Rosson, Jessica Bean, Kristi Stageberg, and Seth Shuchat. "Optimizing Design Refresh Decisions for Long Life Systems Production." Under revision with *Computers and Industrial Engineering*.

Sherwin, Michael. "A Conceptual Supply Chain Risk Management Framework for Engineer-to-Order Environments." Under review with the *International Journal of Physical Distribution & Logistics Management*.

### 2. In Work

Sherwin, Michael. "A Case Study in Supply Chain Analytics: Medical Device Manufacturing." Preparing for submission.

Sherwin, Michael, Olivia Greene, Sarah Martin, and Benjamin Sadler. "Predicting Supplier Obsolescence Risk for Electronic Component Manufacturers in Critical Supply Chains." Preparing for submission.

Sherwin, Michael, Dai Nam Nguyen, and Tanveer Bhuyian. "Multi-Objective Scheduling Optimization in Perishable Multi-Stage Food Manufacturing to Minimize Waste and Maximize Service Level." Preparing for submission.

Sherwin, Michael and Mark Kachmar. "The Current State of Operational Excellence Programs in Small-to-Medium Manufacturing Enterprises." Preparing for submission.

Sherwin, Michael and Kate Sheridan. "Integrating NACE Career Readiness Competencies in the Classroom." Preparing for submission.

Sherwin, Michael, John Barnes, and Eric Rhodes. "Life Cycle Assessment of Powder Metallurgy Processes in Additive Manufacturing." Preparing for submission.

## **IV. SERVICE**

### **A. UNIVERSITY, SCHOOL, OR DEPARTMENT SERVICE**

#### **1. Committees**

##### **Duquesne University**

2025 – Present	Office of the Provost Creative Teaching Award Palumbo-Donahue School of Business Representative Award Committee Member
2024 – Present	Faculty Senate Palumbo-Donahue School of Business Assembly Representative
2022 – Present	Palumbo-Donahue School of Business Undergraduate Curriculum Committee Committee Member
2024 – Present	Palumbo-Donahue School of Business Real Estate and Construction Management Task Force Committee Member
2024	Graduate Assistant Policy Standardization Task Force Office of the Vice Provost for Academics Committee Member
2023	Committee to develop Engineering curriculum Committee Member – Designed curriculum flow chart after benchmarking Systems Engineering programs at peer Universities

### **University of Pittsburgh**

2021 – 2022	Industrial Engineering Department Undergraduate Curriculum Committee Committee Member
2021 – 2022	Industrial Engineering Department Appointment Stream Search Committee Committee Member
2021 – 2022	Katz School of Business Race to the Case Competition Planning Committee Committee Member

## **2. Activities**

### **Duquesne University**

2025 – Present	Mentor to Mary Nyamvumba, MS SCM Student
2025	Panelist, CTE NACE Career Competency Panel
2025	Speaker and Faculty Representative, Admitted Student Day
2025	Teaching for Student Success Certificate Program
2025	Presenter, High School Day for Supply Chain Management
2024	Speaker and Faculty Representative, Admitted Student Day
2024	Faculty Working Group – NACE Competencies
2024	Supply Chain Management Representative, Duq Days
2023 – Present	Mentor to Blesson Yohannan, MS SCM Student
2023	Supply Chain Management Representative, Duq Days
2023	Speaker, Five Scary Business Stories
2023	Client Project Presentation Judge, MGMT 499
2023	Interviewer, Prospective Fellow and Graduate Assistants
2023	Faculty Representative, MS SCM Orientation
2022	Judge, DECA High School Business Plan Competition

### **University of Pittsburgh**

2022	Mentor, Senior Design Capstone Project (1 project)
2021 – 2022	Assistant Graduate Program Director, Part-Time MSIE
2021 – 2022	Lead, Supply Chain Global Experience (Cyprus)
2020 – 2022	Coordinator, IE Supply Chain Management Certificate
2021	Mentor, Senior Design Capstone Projects (4 projects)
2020	Member, COVID-19 Senior Check-In Program
2020	Mentor, Senior Design Capstone Projects (3 projects)

## **B. OTHER PUBLICATIONS NOT INCLUDED UNDER SCHOLARSHIP**



Sherwin, Michael “Covid pandemic exposed vulnerabilities but brought lessons in preparedness.” Interviewed by Tawnya Panizzi. Tribune-Review. 13 April 2025. Available at: <https://triblive.com/local/regional/covid-pandemic-exposed-vulnerabilities-but-brought-lessons-in-preparedness/>. (Accessed: 26 June 2025).

Sherwin, Michael. “AI and Supply Chains.” The KDKA Morning Show, hosted by Larry Richert, Audacy, 27 January 2025.

Sherwin, Michael (2025) ‘Covid-19 changed the supply chain. Pittsburgh AI companies are changing it again’. Interviewed by Jake Dabkowski. *The Pittsburgh Business Times*. 24 January 2025. Available at: <https://www.bizjournals.com/pittsburgh/news/2025/01/24/ai-companies-change-supply-chain.html>. (Accessed: 29 January 2025).

Sherwin, Michael (2024) ‘Supply Chain Headaches Begin after Key Bridge Collapse’. Interviewed by Paul Gough. *The Baltimore Business Journal*. 26 March. Available at: <https://www.bizjournals.com/baltimore/news/2024/03/26/key-bridge-collapse-supplychain-headaches.html>. (Accessed: 27 March 2024).

## C. COMMUNITY SERVICE

### **Ozanam Summer Basketball League, City of Pittsburgh**

2024 – 2025      Head Coach, 14u Boys

### **Mars Area School District Gifted Education Advisory Board**

2021 – 2023      Board Member  
2021 – 2023      Member Advocacy Subcommittee

### **Mars Area Youth Boys' Basketball Association**

2023      Assistant Coach, 6<sup>th</sup> Grade Travel Basketball Team  
2022      Assistant Coach, 5<sup>th</sup> Grade Travel Basketball Team

### **Mars Baseball and Fastpitch Association**

2023      Assistant Coach, 12U Travel Baseball Team  
2023      Assistant Coach, 12U In-House Baseball Team  
2022      Assistant Coach, 11U Travel Baseball Team  
2022      Head Coach, 12U In-House Baseball Team  
2021      Assistant Coach, 10U Travel Baseball Team  
2021      Head Coach, 10U In-House Baseball Team  
2020      Assistant Coach, 9U Travel Baseball Team  
2020      Head Coach, 9U In-House Baseball Team  
2019      Assistant Coach, 8U Travel Baseball Team

2019 Head Coach, 8U In-House Baseball Team  
2016 – 2018 Assistant Coach, 8U In-House Baseball Team

**i9 Boys Flag Football**

2022 Head Coach, 12U Football Team  
2021 Head Coach, 11U Football Team

**Mars Area Youth Girls' Basketball Association**

2021 – 2022 Coach, Basketball Development Program

**D. PROFESSIONAL SERVICE**

**1. Membership on Committees**

**Institute of Industrial and Systems Engineers (IISE)**

2024 – Present Past-President Logistics & Supply Chain Division  
2022 – Present Chair, Micro-Credential Development Committee  
2023 – 2024 President, Logistics & Supply Chain Division  
2022 – 2023 President-Elect, Logistics & Supply Chain Division  
2022 – Present Board Member, Logistics & Supply Chain Division  
2022 Academic Affairs Chair, Pittsburgh Chapter

**Institute for Supply Management (ISM)**

2016 – 2018 Academic Advisory Council, Pittsburgh Chapter

**American Society for Quality (ASQ)**

2011 – 2012 Youth Outreach Chair, Pittsburgh Section  
2010 Healthcare Conference Finance Chair

**Penn State Industrial and Manufacturing Engineering Society (PSIMES)**

2009 – 2010 Chair, Mentoring Committee  
2006 – 2008 President, Board of Directors  
2006 – 2013 Director, Board of Directors

**2. Other Professional Service**

**Military Operations Research Journal**

2024 – Present Manuscript Reviewer (ad hoc)

### **International Journal of Production Economics**

2023 – Present     Manuscript Reviewer (ad hoc)

### **INFORMS Journal on Applied Analytics**

2022 – Present     Manuscript Reviewer (ad hoc)

### **IISE Transactions**

2022 – Present     Manuscript Reviewer (ad hoc)

### **European Journal of Production Economics**

2015 – Present     Manuscript Reviewer (ad hoc)

### **International Journal of Operational Research**

2018 – Present     Manuscript Reviewer (ad hoc)

### **Institute of Industrial and Systems Engineers (IISE)**

2025	Manuscript & Abstract Reviewer, IISE Annual Conference
2023 – 2024	Track Chair, IISE Annual Conference
2023 – 2024	Member, IISE Annual Conference Program Committee
2024	Session Chair, IISE Annual Conference
2024	Manuscript & Abstract Reviewer, IISE Annual Conference
2024	Session Chair, "Humanitarian Supply Chains"
2024	Session Chair, "Professional Skills for Students"
2021 – 2022	Track Co-Chair, IISE Annual Conference
2021 – 2022	University Connect Community Ambassador
2020 – 2022	Faculty Advisor, University of Pittsburgh Student Chapter
2022	Manuscript & Abstract Reviewer, IISE Annual Conference
2021	Judge, Logistics & Supply Chain Student Case Competition
2021	Judge, Logistics & Supply Chain Student Best Paper
2021	Manuscript & Abstract, IISE Annual Conference
2020	Panelist, IISE Pittsburgh Chapter Career Industry Panel
2019 – 2020	Manuscript & Abstract, IISE Annual Conference
2020	Track Chair, IISE Annual Conference
2020	Session Chair, IISE Annual Conference
2019	Session Chair, Industrial and Systems Research Conference
2017	Manuscript & Abstract, IISE Annual Conference

### **American Society for Quality (ASQ)**

2022 – Present     Assessor, ASQConnEx Program Candidates

2021 – Present      Certified Instructor, ASQConnEx  
2020 – Present      Subject Matter Expert, Six Sigma Body of Knowledge

**American Society for Engineering Education (ASEE)**

2022                  Paper Reviewer, ASEE Annual Conference  
2021                  Paper Reviewer, ASEE Annual Conference  
2020                  Session Moderator, ASEE Annual Conference

**Penn State University**

2022 – Present      Mentor, Engineering Leadership Development Program

**Off the Floor Pittsburgh**

2020 – 2021          Non-Profit Consulting and Collaboration

**Urban League of Greater Pittsburgh**

2020                  COVID-19 Housing Assistance Program Volunteer

**Institute for Operations Research and Management Science (INFORMS)**

2018                  Session Chair, INFORMS Annual Meeting  
2017                  Session Chair, INFORMS Annual Meeting

**Chatham University**

2015                  Panel Judge, MBA Program Capstone Project

**Curtiss Wright Corporation**

2011 – 2019          Mentor, Career Development (2 employees)  
2013 – 2019          Advisor, Lean Six Sigma Certification (2 employees)  
2011 – 2019          Mentor, Co-Op Students (8 students)