

Michael F. Gorman, Ph. D.

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Award-winning International Business Intelligence & Analytics Expert specializing in Rail Transportation

- **Value-driven ethic.** Created millions of dollars of value for employers and clients
 - **Innovation and Change focus.** A history of relentless pursuit of significant improved performance
 - **Respected by Industry Peers.** Elected for various positions of Chair, Vice Chair and President for INFORMS Analytics, INFORMS Rail Applications over the last ten years. Started the Analytics Section of INFORMS
 - **Evaluates leading edge technology** regularly through INFORMS, Analytics World and POMS conferences in relation to Business Intelligence & Analytics
 - **Award-winning** transformative work on data-based decision making
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CAREER

MFG Consulting, Inc., President

2002 - Present

BNSF Railway, Kansas City Southern Railway, Hub Group, Schneider, Standard Register, City of Trotwood, Little Caesars Enterprises, NewPage Corp, Vectren Energy, Pacer, MITRE Corporation, Chemstation, Runzheimer, Devon Canada

- Developed an optimization-based decision support system to improve service, increase car utilization and reduce empty miles resulting in \$15-30 M in annual car mile savings and nearly \$1B in capital avoidance from reduced fleet size requirements at CSX / BNSF in 9 months
- Developed an intuitive, user-friendly method of inventory optimization to provide increased service levels at a lower cost for GE in 4 months resulting in \$3.2M annual savings from reduced revisit costs and a soft benefit of 25% improvement in customer service
- In 3 months, developed optimization model for Standard Register which triggered a change in operations and supply chain strategy to follow Performance Based Routing to better allocate customer orders and minimize total landed costs while maintaining high customer service levels; resulting in \$10M in savings
- Expert witness in a multi-million dollar case involving breach of contract and damages calculation in a dispute between a rail carrier and a perishable commodities logistics company
- Designed and developed Decision Support System technology roadmap at Hub Group
- Applied artificial intelligence approach to solving a large-scale combinatorial optimization problem (2 refereed publications)
- Led the design and implementation of overall analytics and business intelligence strategy at Pacer and Hub Group
- Developed SAS software for the determination of statistical distributions
- Directed multi-million-dollar modeling and software development projects for the automation of real-time railcar distribution, locomotive assignment (2 publications), and crew balancing and scheduling (1 refereed publication).
- Fourteen years of consulting practice focused improved decision making via technology and increased availability of analytical systems to support – particularly with Hub Group where we included statistics, optimization, simulation, presentations, and integration
- Conducted Assessment of Romanian Railroad/Port of Costantza operating interface
- Majority of consulting work is conducted remotely with client teams from a cross section of the organization

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- Regularly collect requirements for software, decision support, and analytical consulting projects in every role
- Developed and delivered 3 corporate risk management training courses focused on decision making and statistical analysis with progressively more technical requirements and trained over 130 people in a 5-month period for Devon Canada resulting in reducing significant (\$50M+ CDN) risk exposure to the organization
- Built a model to optimize pricing models for shared equipment capacity within a portfolio of rail products with complementary and completing components resulting in reducing empty miles to 10% while holding trip miles constant and 5% increase in equipment utilization at BSNF
- Developed optimization model to assist in the selection and dispatch of customer orders to address issues of scarce capacity in geographic regions and develop the potential to improve future capacities, while maximizing yields on the assets with an annual cost savings of \$11M and increased container velocity in 6 months for Pacer International and Hub Group

University of Dayton, Professor

2002 - Present

Summary of classes taught: Business Improvement, Inferential Statistics, Business Process Analysis and Design (Corporations), Operations Management, Senior Project Planning, Analytic Approaches to Business Decision Making (Corporations), International Business Experience, Business Integrative Experience

- Conducted logistical process analysis and recommendations with leading customers such as Proctor and Gamble, Coors, Maverick Tube, San Joaquin Refineries, The Home Depot
- Both in my consulting career and in my career as a professor, I have built and trained expert statistical modeling teams, and have managed over 50 different student projects, ensuring timely delivery and client satisfaction. More students are hired from my program than most other departments, and largely due to the Capstone course that I teach which integrates all aspects of their academic career into a client project
- Coordinated numerous inter-departmental teams to complete projects on-time and under budget in both academic and consulting
- Recipient of **numerous awards**: most recently the POMS Wickham Skinner Award for teaching

Burlington Northern Santa Fe Railway,

1992 - 2002

Director, Supply Chain Solutions	2000-2002
Director, e-Strategy	1999-2000
Director, Operations Research and Decision Support	1996-1998
Manager, Operations Research	1994-1995
Manager, Intermodal Applications	1993-1994
Research Project Manager	1992-1993

- Initiated and led the e-strategy and supply chain strategy at BNSF and established strategy for rail response to challenges and opportunities presented by the Internet: channels, service offerings and e-Marketplace
- **RailMarketplace.com**: Created a rail industry supply chain collaboration and procurement marketplace. Acted as Chief Financial Officer during its incubation period and worked with industry-wide representation, developed business plan, selected technology, negotiated terms of agreement for formulation of the company. Lead and managed high-performing virtual teams

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- **RailPrices.com:** Designed, developed and delivered new marketing channel creation and ease of doing business for small customers; presenting rail prices in graphical, map-based user-friendly format for new rail users, encouraged price simplicity and transparency for the rail industry and opened doors for door-to-door pricing to nontraditional rail customers
- Developed Operations Research Strategy at BNSF
- Successfully expanded planning horizons, increased decision effectiveness and reduced staffing requirements
- Completed innovative Public/Private partnerships research in rail infrastructure investment and Railyard benchmarking study
- Managed a staff of operations research analysts for six years and consistently worked with IT on assessment and recommendation of appropriate technology selection for data analytics, business intelligent tools and modelling software

Advanced Sciences, Inc., Statistical Programming Consultant **1991-1992**
Center for Econometric Modeling Research, Indiana University, Research Assistant **1987-1988**

EDUCATION

Business and Economics (Ph.D.) – Indiana University,(Bloomington, IN) 1994
Masters of Economics (M.A.) – Indiana University, (Bloomington, IN) 1990
Bachelor of Science (B.Sc.) – Computer Science and Economics, Xavier University (Cincinnati, OH) 1987

PROFESSIONAL MEMBERSHIPS

Include and not limited to: NURail Technical Advisory Committee, Institute for Operations Research and the Management Sciences (INFORMS), INFORMS Rail Application as a Special Interest Group, Production and Operations Management Society (POMS) and Transportation Research Forum

REFERENCE MATERIAL

- **Publications:** <http://www.mfgconsultinginc.com/publications.html>
- **Awards:** <http://www.mfgconsultinginc.com/awards.html>
- **Testimonials:** <http://www.mfgconsultinginc.com/other-testimonials.html>
- Editorial & Reviewer positions at 8 major journals 24 international academic journals respectively including Management Insights, Interfaces Special Issue in Transportation and Logistics and International Journal of Business Intelligence Research
- Over 80 international presentations & covered in over 30 online, print, radio and televised interviews
- Have participated in the Decision Sciences Institute Dissertation Awards, INFORMS Diversity Council and acted as the Chair for INFORMS SAS Ambassador for Analytics
- Have advised in media on expertise in:
 - Analytics
 - Rail and Intermodal Asset Optimization
 - Transportation Delivery and Service Design
 - Transportation, Logistics and Supply Chain Best Practices
 - Pricing and Revenue Management Optimization

References Available Upon Request