

# Frederick M. Zimmerman

14860 Lloyds Drive

Minnetonka, Minnesota 55345

Phone: 612--935--0678 (Home) 612-867-8368 (Cell phone)

Dr. Fred Zimmerman retired as a Professor of Engineering and Management at the University of St. Thomas in St. Paul, Minnesota in December of 2005 and currently holds the rank of Professor Emeritus. During his twenty-five year association with the University of St. Thomas, Dr. Zimmerman served as Engineering Program Director, Engineering Department Chair, Member of the Committee of Deans, and full Professor. When he retired at the end of 2005, he was awarded the University's highest academic award, the University of St. Thomas Distinguished Service Award.

For many years, Dr. Zimmerman taught both engineering and management classes, mostly at the graduate level. He has also taught at Universidad Catolica in Montevideo, Uruguay and at the Czech Management Center in Celokovice, Czech Republic, the University of Pittsburgh, and the University of Minnesota. He is a frequent source to the media on industrial issues. He is the author of numerous professional and technical articles plus the McGraw--Hill book entitled *The Turnaround Experience: Real World Lessons In Revitalizing Corporations*. His research manuscripts *Measurement of the Industrial Economy*, *The Relocation Of Industry*, and the *Status of Manufacturing in Minnesota* were published by the St. Thomas Technology Press. His book, *Manufacturing Works: The Vital Link Between Production and Prosperity* is co-authored with Dave Beal and published by Dearborn Trade Press in 2002.

Prior to returning to academia in 1985, Dr. Zimmerman had spent more than 25 years in industry, primarily with three computer companies; IBM, Control Data, and National Computer Systems. At various times, he served as an engineer, manager, vice president and president. He has served on the boards of directors of 14 corporations.

Dr. Zimmerman resides in Minnetonka, Minnesota with his wife, Joannell. The Zimmermans have five children and have housed more than ninety foster children.

## Education:

Ph.D. in Strategic Management and Organizational Studies --  
University of Minnesota Carlson School of Management (1987)

Graduate School -- University of Southern California (1968)

MBA courses -- University of Minnesota (1965 & 1966)

B.A. in Economics (Mathematical Economics and Statistics) -- University of Minnesota (1961)

## Professional Affiliations:

Member: Society of Manufacturing Engineers  
Minnesota Precision Manufacturing Association

## Books:

MANUFACTURING WORKS: THE VITAL LINK BETWEEN PRODUCTION AND PROSPERITY, with Dave Beal, published by Dearborn Trade Press, June of 2002

THE TURNAROUND EXPERIENCE: REAL WORLD LESSONS IN REVITALIZING CORPORATIONS, McGraw--Hill, New York, 1991

## Longer Manuscripts:

THE STATUS OF MANUFACTURING IN MINNESOTA - 2003, Estelle Beretta, Abigail Ong and Fred Zimmerman, Minnesota Technology Inc., 2003

THE RELOCATION OF INDUSTRY, St. Thomas Technology Press, 1998, ISBN 1-887199-00-4

MEASUREMENT OF THE INDUSTRIAL ECONOMY, St. Paul, St. Thomas Technology Press, 1995, ISBN 0--9624229--8--3 (Also available on the Internet)

THE STATUS OF MANUFACTURING IN MINNESOTA, Minnesota Technology Inc., 1998

## **Boards of Directors or Board of Advisors Assignments**

Sportech Inc. (2013 to Present)  
Top Tool (2011 to Present)  
Tower Solutions (2013 to Present)  
Winnebago Industries (1992 to 2005)  
Minnesota Wire & Cable (1987 to 2012)  
Park Industries (2000 to present)  
Energy Systems Group (1997 to 2003)  
Bermo, Inc. (1997 to 2003)  
Productivity Robotics, Inc. (1998 to 2002)  
HEI, Inc. (1995 to 1998)  
Northwestern National Life Health Network, Inc. (1989 to 1992)  
Numerex Corporation (1986 to 1989) now part of Carl Zeiss A.G. of Germany  
InterCim Corporation/Manufacturing Data Exchange Corporation (1984 to Dec. 1988)  
Productivity Inc. (1984 to 1985)  
Valley Computer Corporation (1968 to 1970)  
Natural Resources Corporation (1980 to 1981)  
Camax Systems Inc. (1981 to 1982) now part of SDRC Corporation

## **Industrial and Professional Experience:**

### **University of St. Thomas (1985 to present)**

Professor Emeritus (2006 to present)  
Professor of Engineering and Technology Management (1995 to 2005)  
Director of Graduate Programs in Manufacturing and Engineering (1985--1995)  
Department Chair — Manufacturing Systems Engineering (1985--1995)  
Executive Editor — St. Thomas Technology Press (1987--1996)

### **Zimmerman Co. / Sullivan & Associates (1983 to 1985)**

Specialist in Turnaround Operations

### **Computool/Camax Systems Inc. -- a National Computer Systems affiliate (1981--1982)**

President & Chief Executive Officer

### **National Computer Systems (1974--1981)**

Group Vice President & General Manager  
Vice President Field Engineering Division

### **Control Data (1963--1966 & 1970--1974)**

Controller. (USSR & East Europe Operations)  
Controller and Director of Planning (Education Group)  
Supervisor of Technical Services & Reliability Engineer

### **Peat, Marwick & Mitchell (1968--1970)**

Senior Consultant -- Operations Research (Los Angeles)

### **IBM (1955--1963)**

Senior Staff Assistant (New York Headquarters)  
Technical Support Engineer (Lexington, Kentucky Plant)  
Field Engineer (St. Paul, Moline & Minneapolis)

## **Personal:**

Married to Joanel Felker Zimmerman since September of 1962.  
Five children (Frederick, Carita, Christina, Brigitte and Hans).

## Publications:

- "Beware of too much communication," MINNEAPOLIS STAR TRIBUNE, December 23, 2013.
- "Goal integration' can break U.S. impasse," MINNEAPOLIS STAR TRIBUNE, October 6, 2013.
- "Examining Our Competitive Position, CIVIC CAUCUS, Minneapolis,MN, September 3, 2013
- "Business Forum: Could a Detroit-style fall happen in the Twin Cities?" MINNEAPOLIS STAR TRIBUNE, July 17, 2013.
- "The Big Blue blues," MINNEAPOLIS STAR TRIBUNE, June 24, 2013.
- "Most solutions create other problems," MINNEAPOLIS STAR TRIBUNE, May 26, 2013.
- "Education customers deserve a positive return," MINNEAPOLIS STAR TRIBUNE, February 17, 2013.
- "Election Fervor in 2012: Economic Fix lies in Math not Politics,"PRECISION MANUFACTURING, Sep/Oct 2012
- "Business forum: Fed's bet on housing cause for alarm" MINNEAPOLIS STAR TRIBUNE, September 24, 2012.
- "Business forum: Attention job applicants ...," MINNEAPOLIS STAR TRIBUNE, July 30, 2012.
- "Business Forum: Economic fix lies in math, not politics," MINNEAPOLIS STAR TRIBUNE, June 4, 2012.
- "Letter of the Day - Elected Leader," MINNEAPOLIS STAR TRIBUNE, January 27, 2012.
- "Three Keys to Success: Managing in Troubled Times" PRECISION MANUFACTURING JOURNAL, Nov/Dec 2011".
- "Channeling The Anger In Minnesota: New Thinking Can Pave the Road to Better Government," authored with John Adams, Dave Beal, Tom Hörner, Bill Rudelius, Chuck Slocum, Clarence Shallbetter, Dane Smith, and Ray Waldron, CIVICCAUCUS, October 10, 2010.
- "What employers need in a competitive world," MINNEAPOLIS STAR TRIBUNE, September 7, 2011.
- "Education, can it be better?" PRECISION MANUFACTURING JOURNAL, July/August 2011 (accepted).
- "Does healthcare cost reduce employment?" PRECISION MANUFACTURING JOURNAL, May/June 2011".
- "Boosting quality and productivity not impossible," MINNEAPOLIS STAR TRIBUNE, February 14, 2010.
- "Independence Party not to blame," MINNEAPOLIS STAR TRIBUNE, November 8, 2010.
- "Civility lost in communicating political viewpoints," CATHOLIC SPIRIT, October 13, 2010.
- "Europe's protests offer lesson to Minnesota, U.S.,"MINNEAPOLIS STAR TRIBUNE, October 10, 2010.
- "Getting a Charge out of Batteries," PRECISION MANUFACTURING JOURNAL, Jul/Aug 2010.
- "Are we really worth what we're being paid?", MINNEAPOLIS STAR TRIBUNE, July 5, 2010
- "That money is washing away: There's a growing public workforce, retiring early but living longer while drawing benefits. Do the math.," MINNEAPOLIS STAR TRIBUNE, October 25, 2009
- "Engine Technology in Development: What it Means to Manufacturers," PRECISION MANUFACTURING JOURNAL, Sep/Oct 2009.
- "In health care, one is rarely like the other: Hospitals and clinics vary. Patients too. Costs, especially. This is an issue." MINNEAPOLIS STAR TRIBUNE, August 20, 2008,
- "How Can We Tell If Our Customers Are Credit Worthy?" PRECISION MANUFACTURING JOURNAL, Jul/Aug 2009.
- "John Hoeven (Governor of North Dakota) interview with Fred Zimmerman " MANUFACTURING SUCCESS, Winter 2009.
- "Tim Pawlenty (Governor of Minnesota) interview with Fred Zimmerman " MANUFACTURING SUCCESS, Spring 2009
- "World Economies are Sputtering: What Can We Make of It," PRECISION MANUFACTURING JOURNAL, Jan/Feb 2009.
- "We have a stake in Detroit Three's woes," MINNEAPOLIS STAR TRIBUNE, December 7, 2008
- "Orphans Welding in Malawi: A Minnesota Manufacturing Project",with Brigitte A. Zimmerman, PRECISION MANUFACTURING JOURNAL, Nov/Dec 2008.
- "WOW—Advanced Automation: New Plant At Kurt Manufacturing, Inc., PRECISION MANUFACTURING JOURNAL, Nov/Dec 2008.
- "Fuel Cells for Energy: Is there a Near Term Future?" PRECISION MANUFACTURING JOURNAL, Sep/Oct 2008.
- "McCormick MNSCU President interview with Fred Zimmerman," MANUFACTURING SUCCESS, Spring 2008.
- "Beyond Fossil Fools," PRECISION MANUFACTURING JOURNAL, July/August 2008.
- "Business forum: Knowing the business from bottom to top," MINNEAPOLIS STAR TRIBUNE, June 22, 2008.
- "The Aerospace Industry in Minnesota," PRECISION MANUFACTURING JOURNAL, May/June 2008.
- "Fluidyne Aerospace Testing Laboratory," PRECISION MANUFACTURING JOURNAL, May/June 2008.
- "Instability – The Usual Condition, " SHOPTALK -- ARROWHEAD MANUFACTURERS & FABRICATORS ASSOCIATION MAGAZINE, May 2008.
- "Let's Talk Manufacturing: Norm Coleman interview with Fred Zimmerman," MANUFACTURING SUCCESS, Spring 2008.
- "Manufacturing Marvels: The City of Pittsburgh," PRECISION MANUFACTURING JOURNAL, March/April 2008.
- "Tool Management," PRECISION MANUFACTURING JOURNAL, March/April 2008.
- "Look to technology for the long-term fix," MINNEAPOLIS STAR TRIBUNE, February 11, 2008.
- "Scanning the Manufacturing Environment – Part Three, " SHOPTALK -- ARROWHEAD MANUFACTURERS & FABRICATORS ASSOCIATION MAGAZINE, February 2008.
- "Take a harder look at predatory investing," MINNEAPOLIS STAR TRIBUNE, January 14, 2008.
- "Scanning the Manufacturing Environment – Part Two, " SHOPTALK -- ARROWHEAD MANUFACTURERS & FABRICATORS ASSOCIATION MAGAZINE, January 2008.
- "The Energy Future for Manufacturers," PRECISION MANUFACTURING JOURNAL, January/February 2008.
- "Manufacturing Marvels – Starkey Laboratories," PRECISION MANUFACTURING JOURNAL, January/February 2008.

"Scanning the Manufacturing Environment – Part One," SHOPTALK -- ARROWHEAD MANUFACTURERS & FABRICATORS ASSOCIATION MAGAZINE, December 2007.

"Yes, Virginia, There is Manufacturing in St. Paul", PRECISION MANUFACTURING JOURNAL, November/December 2007.

"A Tribute to Fred Berdass", PRECISION MANUFACTURING JOURNAL, November/December 2007.

"GM-UAW pact may be just the beginning," MINNEAPOLIS STAR TRIBUNE, October 1, 2007,

"Dunwoody College of Technology; Design It, Create It, Fix It", PRECISION MANUFACTURING JOURNAL, Sep/Oct 2007.

"Predatory Investing and What it Means", PRECISION MANUFACTURING JOURNAL, September/October 2007.

"Robotics and Automation Survival Guide", PRECISION MANUFACTURING JOURNAL, July/August 2007.

"Competing: Selling on Value", PRECISION MANUFACTURING JOURNAL, May/June 2007.

"Facts Don't Lie: The U.S. Must Strengthen Manufacturing", PRECISION MANUFACTURING JOURNAL, May/June 2007.

"Steel Manufacturing: Minnesota's Role ", PRECISION MANUFACTURING JOURNAL, March/April 2007.

"How Will Manufacturing Fare in the New Congress?", PRECISION MANUFACTURING JOURNAL, January/February 2007.

"Energy Myths and the Public Debate", PRECISION MANUFACTURING JOURNAL, November/December 2006.

"Some Politicians Show Interest," PRECISION MANUFACTURING JOURNAL, September/October 2006.

"Is it, 'GM, Ford and fall on our sword?'" MINNEAPOLIS STAR TRIBUNE, September 4, 2006.

"New Products, Better Methods - Key to survival,"PRECISION MANUFACTURING JOURNAL, July/August 2006.

"What's in the figures? Gloom? Or incentives to explore new markets", PRECISION MANUFACTURING JOURNAL, May/June 2006.

"Winnebago Industries: A Leader in Practical Innovation", PRECISION MANUFACTURING JOURNAL, May/June 2006.

"Sacrifice, efficiency needed for Minnesota," MINNEAPOLIS ST. PAUL BUSINESS JOURNAL, May 1, 2006.

"Deere thrives by values others just claim," MINNEAPOLIS STAR TRIBUNE, March 6, 2006.

"History teaches what's best in a leader," MINNEAPOLIS STAR TRIBUNE, December 12, 2005.

"NWA woes will ripple through MN economy," MINNEAPOLIS - ST. PAUL BUSINESS JOURNAL print edition, September 23, 2005.

"Forum: What the wolves have wrought," MINNEAPOLIS STAR TRIBUNE, September 25, 2005, <http://www.startribune.com/stories/146/5628528.html>

"Business judgment revisited,"MINNEAPOLIS STAR TRIBUNE, August 21, 2005, <http://www.startribune.com/stories/535/5567638.html>

"Fair play in compensation game," MINNEAPOLIS STAR TRIBUNE, August 7, 2005, <http://www.startribune.com/stories/146/5545650.html>.

"Chain Reactions in Minnesota Manufacturing", PRECISION MANUFACTURING JOURNAL, July/August 2005.

"Less squabbling, more solving," MINNEAPOLIS STAR TRIBUNE, May 15, 2005.

"Let's make education a class act," MINNEAPOLIS STAR TRIBUNE, February 20, 2005, <http://www.startribune.com/stories/146/5246888-2.html>

"Cognitive dissonance," MINNEAPOLIS STAR TRIBUNE, November 21, 2004.

"Materials and Money," PRECISION MANUFACTURING JOURNAL, November/December 2004.

"Winnebago director says thanks," MASON CITY GLOBE GAZETTE, November 16, 2004.

"Business Forum: Filling the need for competitors," MINNEAPOLIS STAR TRIBUNE, August 30, 2004.

"Business forum: Management by getting out of the way," MINNEAPOLIS STAR TRIBUNE, August 1, 2004,<http://www.startribune.com/stories/535/4901794.html>

"Is your boss genuine or synthetic?," MINNEAPOLIS STAR TRIBUNE, May 17, 2004.

"Outsourcing: How Will the Face of Business Change?" MINNESOTA STATE BAR ASSOCIATION INSTITUTE FOR LEGAL EDUCATION, April 14, 2004

"Jobwise, we're all in this together," MINNEAPOLIS STAR TRIBUNE, March 7, 2004

"Business forum: Sports teams aren't worth the cost," MINNEAPOLIS STAR TRIBUNE, January 18, 2004

"Executive rationalization gets in the way of ethical conduct," MINNEAPOLIS STAR TRIBUNE, December 15, 2003

"How can Minnesota respond to the global manufacturing boom?" MINNEAPOLIS STAR TRIBUNE, November 16, 2003

"Quality and economic self-interest," MINNEAPOLIS STAR TRIBUNE, September 28, 2003

"Business forum: Some modest, and not-so-modest, exec pay comparisons," MINNEAPOLIS STAR TRIBUNE, Sunday, May 25, 2003. <http://www.startribune.com/stories/535/3895741.html>

"Serving as a Director of a Manufacturing Company: 10 Principles of Success," DIRECTORS MONTHLY - NATIONAL ASSOCIATION OF CORPORATE DIRECTORS, March 2003

"Manufacturing Deficits," MINNEAPOLIS STAR TRIBUNE, Sunday, February 2, 2003

"What do you see? Blank pages or opportunity?,"PRECISION MANUFACTURING JOURNAL, December, 2002

"Students Raise Questions the Experts Miss", ST. THOMAS MAGAZINE, Fall 2002

"Hopes are High -- Manufacturing after the Market Slide", PRECISION MANUFACTURING JOURNAL, September, 2002

"Merger mess", INDUSTRY INSIGHT, August 22, 2002, by Dave Beal and Fred Zimmerman

"What were we thinking?,"MINNEAPOLIS STAR TRIBUNE, Sunday, June 29, 2002

"How to cut college costs? Easy as Pi",MINNEAPOLIS STAR TRIBUNE, Monday, June 16, 2002

"The Committee on the Value of Pi",MINNEAPOLIS STAR TRIBUNE, Monday, June 16, 2002

"Restoring the Balance", MINNEAPOLIS STAR TRIBUNE, Monday, January 21, 2002

“Disturbing Disparities”, MINNEAPOLIS STAR TRIBUNE, Monday, July 16, 2001  
 “The Day Boeing Moved”,PRECISION MANUFACTURING JOURNAL, May-June 2001  
 “Hardly Working”, MINNEAPOLIS STAR TRIBUNE, Monday, April 9, 2001  
 “Fundamentally less monkey business”, MINNEAPOLIS STAR TRIBUNE, Sunday, December 31, 2000  
 “Pulling together or pulling apart?”, MINNEAPOLIS STAR TRIBUNE, Sunday, September 24, 2000  
 “Private schools also address state’s tech needs”, ST. PAUL PIONEER PRESS, September 22, 2000  
 “Worry but don’t organize”, MINNEAPOLIS STAR TRIBUNE, Monday, June 5, 2000  
 “Trade with China should be developed in ways that give Americans opportunity”,MINNEAPOLIS STAR TRIBUNE, Saturday, May 20, 2000  
 “Infatuation with technology stocks just the latest in a long series of fads” ST. PAUL PIONEER PRESS, May 1, 2000  
 “Whose productivity”,MINNEAPOLIS STAR TRIBUNE, Monday, February 21, 2000  
 “Popular isn’t always prudent”, MINNEAPOLIS STAR TRIBUNE, Monday, December 13,1999  
 “Manufacturing: the vital cog in state’s economy”, MINNEAPOLIS STAR TRIBUNE, Monday, September 13,1999  
 “Shareholders should look again at Honeywell buyout”, MINNEAPOLIS STAR TRIBUNE, Monday, June 14,1999  
 “Companies with real strategies experience real results”, MINNEAPOLIS STAR TRIBUNE, Monday, May 3,1999  
 “Much treasure was lost when Control Data was saved”, MINNEAPOLIS STAR TRIBUNE, Monday, February 8,1999  
 “Economy shares similarities with the side shows of old”, MINNEAPOLIS STAR TRIBUNE, Monday, December 7,1998  
 “Trade deficits endanger our future”, CITYBUSINESS, November 27, 1998  
 “The relocation of Industry: From Riches to Rags during a Time of Prosperity”, CONFERENCE ON CATHOLIC SOCIAL THOUGHT, Goa, India, January 11-15, 1999  
 “Hostile Takeovers: are we aware of the costs”, CITYBUSINESS, July 10, 1998  
 “The Relocation of Industry and its Impact of Engineering Education” JOURNAL OF APPLIED MANUFACTURING SYSTEMS, Vol. 9, No. 2, Summer 1998  
 “Prosperity: Prepare to encounter posterity”, CITYBUSINESS, March 27, 1998  
 “The Relocation of Industry and Engineering Education”, accepted for publication, AMERICAN SOCIETY FOR ENGINEERING EDUCATION, for publication in Spring 1997  
 “Any diversion of tax receipts should be equal”, CITYBUSINESS, November 14, 1997  
 “Modest overhead key to corporate success”, CITYBUSINESS, October 17, 1997  
 “Reexamining the Cost of Labor”, MINNESOTA PRECISION MANUFACTURERS JOURNAL, July-August 1997  
 “What MTI Can do to help Manufacturers”, MINNESOTA TECHNOLOGY, INC., June 1997  
 “Education system gets failing marks”, CITYBUSINESS, July 4, 1997  
 “Prosperity and Production”, STRATEGIC TECHNOLOGIES FOR GLOBAL MANUFACTURING CONFERENCE, Lehigh University, April 29, 1997  
 “Expanding the city through manufacturing”,CITYBUSINESS, March 21, 1997  
 “Manufacturing is key to welfare reform”,CITYBUSINESS, January 31, 1997  
 “Factors Influencing -- and the Economic Outlook for -- Component Suppliers”, MINNESOTA PRECISION MANUFACTURERS JOURNAL, January/February 1997  
 “Misguided policies cause stagnating wages”,CITYBUSINESS, July 26, 1996  
 “Rising Overhead is Destroying US Standard of Living” an invited column, MINNEAPOLIS STAR--TRIBUNE, Sunday, April 28, 1996  
 “Measurement: An Alternative to Industrial Policy”, JOURNAL OF APPLIED MANUFACTURING SYSTEMS, Vol. 8, No. 1, Winter 1995--96  
 “Economic Development: A New Approach”, with Frederic J. Zimmerman, JOURNAL OF APPLIED MANUFACTURING SYSTEMS, Vol. 8, No. 1, Winter 1995--96  
 “Re--engineering Could Aid Stalled Budget Process”,CITYBUSINESS, February 9, 1996  
 “Executive Compensation has Reached Unreasonable Levels”,CITYBUSINESS, November, 1995  
 “The Changing Nature of Manufacturing Costs and its Impact on Manufacturing Engineering Education”, SOCIETY OF MANUFACTURING ENGINEERS CONFERENCE ON PREPARING WORLD CLASS MANUFACTURING PROFESSIONALS, San Diego, California March 13--15, 1996 (Article Accepted for Publication)  
 “Re--engineering Engineering Education”, WORLD CONFERENCE ON ENGINEERING EDUCATION, St. Paul, Minnesota October 15, 1995 (Article Accepted for Publication)  
 “Hockey’s great, but state must examine priorities”,CITYBUSINESS, May 19, 1995  
 “Simultaneous Product Development -- The Old Way”, MANUFACTURERS ALLIANCE, Volume VI. No. 1 February/March 1995  
 “Nation has squandered the prosperity of everyone”, Guest Commentary, MINNEAPOLIS STAR TRIBUNE, February 20, 1995  
 “Short--sighted economics are leading to U.S. decline”,CITYBUSINESS, October 5, 1994  
 “Minnesota’s Manufacturing Future”, TWIN CITIES BUSINESS MONTHLY, April 1994  
 “Unnecessary mandates are a burden on society,” CITYBUSINESS, January 21, 1994  
 “Total Quality and our Industrial Economy”, JOURNAL OF APPLIED MANUFACTURING SYSTEMS, Vol. 6, No. 1, Fall 1993  
 “Turnaround Management” in THE BLACKWELL DICTIONARY OF ORGANIZATIONAL BEHAVIOR, London, Basil Blackwell Ltd., 1994

"Management by Fact -- A Case Study of the FMC Naval Systems Division," AUTOMATION FORUM, August 25--27, 1993  
 "The Turnaround Experience -- an Update," Institute of Managerial Accountants, Minneapolis, April 23, 1992  
 "We can't let a debacle like Northwest happen again," CITYBUSINESS, February 5, 1993  
 "Trade rivals will triumph unless U.S. cleans up act," CITY BUSINESS, December 4, 1992  
 "Emerging Trends in Manufacturing Engineering Education," AUTOFACT 92 CONFERENCE, Detroit Michigan, October 10--12, 1992. Published as SME Technical Paper MS92--340.  
 "Real World Lessons in Building a Stronger Industrial Economy," *Seminar on Analysis and Use of Labor Market Information for Policy Formulation in Less Developed Countries*, St. Paul, Minnesota, October 21, 1992  
 "Lower Cost through Design," AMERICAN CONTRACT MANUFACTURERS ASSOCIATION, September 17, 1992  
 "Saving American Firms from Bad Management," CITYBUSINESS, July 31, 1992  
 "Proposed Principles of Industrial Development, Recommendations for Companies, Recommendations for Directors, Recommendations for Governments," NEWSLETTER FOR CORPORATE RENEWAL, June 1992  
 "Reports show runaway government hard on business, labor," Guest editorial in ST. PAUL PIONEER PRESS, May 16, 1992  
 "Manufacturing in the Future -- Conditioning Individual Companies for Survival," INSIDE LINE, Volume 5, Number 1, February 4, 1992  
 "United States can learn from Czechoslovakia's move to market system," CITYBUSINESS, February 10, 1992  
 "U.S. Economy Hampered by a Lack of Producers," guest editorial in MINNEAPOLIS STAR TRIBUNE, January 20, 1991  
 "Summary of What is seen as Needed in Labor Management Relations," WORKING TOGETHER IN A CHANGING WORLD -- A LABOR MANAGEMENT CONFERENCE, St. Paul, Minnesota, January 17, 1992  
 "Industry Based Graduate Programs in Manufacturing," for presentation at the PACIFIC CONFERENCE IN MANUFACTURING, Sydney, Australia, December 1990.  
 "Forum," guest editorialist for CITYBUSINESS newspaper, several separate editorials (1989--1991).  
 "The Q--Base Flexible Automation Project," A Case Study for the AUTOMATION FORUM, April 1991  
 "Onan Corporation Flexible Automation Project," A Case Study for the AUTOMATION FORUM, April 1991  
 "Automation and Labor Cooperation," NORTHLAND DISPATCH Newsletter of United States Postal Service, August/September, 1991  
 "Economic Measurement and National Productivity," IE NEWS, Production and Inventory Control Division of the Institute of Industrial Engineers, Winter 1989  
 "The Individual Firm and the Common Good," 1991 PEACE AND JUSTICE CONFERENCE, October 19, 1991  
 "Product Development using Concurrent Engineering," AMERICAN PRODUCTION AND INVENTORY CONTROL SOCIETY -- Fall Seminar, November 20, 1991  
 "Trends in Profitability Analysis -- The Bottom Line," Conference proceedings of the ASSOCIATION FOR SYSTEMS MANAGEMENT -- 1976  
 "Turnaround -- A Painful Learning Process," LONG RANGE PLANNING, August 1986  
 "Statistics, Policy and the Manufacturing Economy," JOURNAL OF APPLIED MANUFACTURING SYSTEMS, Fall 1988  
 "Economic Measurement and National Productivity," CIM--POSIUM, April, 1988  
 "15 Ways to Improve our Performance as Managers," ST. THOMAS MAGAZINE, Fall 1988.  
 "An Advanced Manufacturing Center for Minnesota," CIM--POSIUM, October 1988  
 "Developing a Stronger Manufacturing Economy," MINNESOTA MANUFACTURING FORUM, September 1988  
 "Managing a Successful Turnaround," LONG RANGE PLANNING, June 1989  
 "Proposed Principles for Industrial Development," JOURNAL OF APPLIED MANUFACTURING SYSTEMS, Spring 1989  
 "Carl the Worker," TOOL BITS, The Society of Manufacturing Engineers, April 1992  
 "Carl the Worker," AUTO WORKER, United Auto Workers Local 879, Volume 15, Number 2,  
 "Carl the Worker," JOURNAL OF APPLIED MANUFACTURING SYSTEMS, Winter 1992  
 "Carl the Worker," ST. THOMAS MAGAZINE, Winter 1992

## Keynote Speeches and Conference Presentations:

- "Our Visit to Malawi," with Joanel E. Zimmerman, IMMACULATE HEART OF MARY CHURCH, November 21, 2013.
- "Examining Our Competitive Position, CIVIC CAUCUS, Minneapolis, MN, August 23, 2013 .
- "Paving The Way For A Better Economy," MINNESOTA ASPHALT PAVERS ASSOCIATION, December 7, 2012.
- "What is Holding Back US Manufacturing?" MAKIN BACON BREAKFAST CLUB, Minneapolis Minnesota, August 2, 2012
- "How to Pick a Good Manufacturing Company, AMERICAN ASSOCIATION OF INDIVIDUAL INVESTORS TWIN CITIES CHAPTER, June 7, 2012.
- "The Current State of Minnesota's Industrial Economy -- Some Thoughts to Consider", INDEPENDENCE PARTY OF MINNESOTA, Minneapolis Minnesota, February 25, 2012
- "The Status of Manufacturing in 2011," BUSINESS FORUM, Richfield, Minnesota, July 27, 2011.
- "The Status of Manufacturing in 2011," OPTIMIST CLUB, Golden Valley, Minnesota, February 23, 2011.
- "The Status of Manufacturing in the United States," GOLDEN KIWANIS CLUB, St. Louis Park, Minnesota, February 4, 2011.
- "A Visual History of the Early Automotive Industry" FOX AND HOUNDS," Minnetonka, Minnesota, March 24, 2010.
- "Some observations on the economy," FOX AND HOUNDS," Minnetonka, Minnesota, April 21, 2010.
- "Opportunities in Electronics Development and Manufacturing in 2010 and Beyond," INTERNATIONAL MICROELECTRONICS AND PACKAGING SOCIETY, Eden Prairies, Minnesota, January 26, 2010.
- "Global Sourcing in 2010," AMERICAN PRODUCTION AND INVENTORY CONTROL SOCIETY, Clear Lake, Iowa, November 10, 2010.
- "Why Government, Environmental Organizations, and Financial Institutions All Need More Scientists" 3M Technology Symposium, St. Paul October 6, 2009
- "The Current State of Manufacturing – Considering History," Larson Allen Manufacturing Roundup, Minneapolis, September 30, 2009
- "The Localization of Globalization," MANUFACTURING SUMMIT, October 24, 2008.
- "The Current Economy," OPTIMISTS CLUB, Richfield, Minnesota, September 17, 2008.
- "Corporate Governance and the Responsibilities of Directors," FRIENDSHIP VILLAGE, Bloomington, Minnesota, November 30, 2006.
- "The Status of Manufacturing, 2006", RICHFIELD SENIORS, St. Louis Park, Minnesota, November 21, 2006
- "Mining, Manufacturing, and Education" ARROWHEAD MANUFACTURERS AND FABRICATORS ASSOCIATION, Duluth, Minnesota, October 11, 2006.
- "The Status of Manufacturing, 2006" at the regional meeting of the American Society of Engineering Education at the University of Wisconsin - Stout. October 6, 2006
- "Manufacturing and Retirements," Minnesota Engineers Club, Fort Snelling, Minnesota, September 8, 2006.
- "Status of U. S. Auto Industry," FOX AND HOUNDS CLUB, Minnetonka, Minnesota, July 12, 2006.
- "Can we compete?, MINNESOTA METALCASTERS, St. Paul, Minnesota, May 17, 2006.
- "Global Sourcing," AMERICAN SOCIETY FOR QUALITY, Owatonna, Minnesota, March 9, 2006.
- "Will manufacturers just survive or thrive in Minnesota?" MANUFACTURING SUMMIT - MINNESOTA MANUFACTURERS COALITION AND MINNESOTA CHAMBER OF COMMERCE, St. Paul, Minnesota, October 25, 2005.
- "Status of Manufacturing - 2205," ELK RIVER CHAMBER OF COMMERCE, Elk River, Minnesota, October 18, 2005
- "Things that must be done to save U. S. manufacturing." RICHFIELD OPTIMIST CLUB, June 22, 2005.
- "The need for cooperation among the public and private sectors in strengthening U. S. industry," Bob Cardinal, SUBURBAN COMMUNITY CHANNELS CABLE NETWORK June 24, 2005 taped for airing in August.
- "Future of Education in the United States." MINNESOTA FUTURISTS, June 25, 2005.
- "Resources Available to Minnesota Manufacturers," MINNESOTA CHAMBER OF COMMERCE, St. Cloud, Minnesota, June 1, 2005.
- "Why college students never want to talk to their fathers on the phone and what this means to manufacturers, bankers and others," SUCCESS THROUGH INNOVATION CONFERENCE, Little Falls, Minnesota, May 3, 2005.
- "Outsourcing: Are we Aware of its Cost?" MINNESOTA BUSINESS LAW INSTITUTE , April 20, 2005, Minneapolis, Minnesota
- "The Importance of manufacturing to the Prosperity of the Country." ST. LOUIS PARK KIWANIS CLUB, February 24, 2005.
- "The Importance of Manufacturing," ROBBINSDALE KIWANIS CLUB, Minneapolis, Minnesota February 7, 2005..
- "The Status of World Manufacturing," SOCIETY OF MANUFACTURING ENGINEERS, Minneapolis, Minnesota January 5, 2005.
- "The Importance of Manufacturing to Minnesota's Economy," EAST MINNEAPOLIS EXCHANGE CLUB, Minneapolis, Minnesota December 15, 2004.
- "Outsourcing what do we do?" ISSUES OF GLOBALIZATION CLASS, Edina Community Center, October 26, 2004
- "Manufacturing's role in business growth," TECHNOLOGY MANAGEMENT FORUM, 3M Center, St. Paul, Minnesota, September 21, 2004
- "Made in USA, The Importance of Manufacturing to the United States," WOODLAKE LUTHERAN CHURCH, Richfield, Minnesota, September 14, 2004.
- "The importance of Manufacturing to the United States, EDINA KIWANIS CLUB, Edina, Minnesota, September 7, 2004
- "The Importance of Manufacturing to Minnesota," FOX AND HOUNDS CLUB, Minnetonka, Minnesota, July 14, 2004
- "The Status of Minnesota Manufacturing," GOLDEN VALLEY OPTIMIST CLUB, July 7, 2004.
- "The Status of U. S. Industry," GOLDEN VALLEY OPTIMIST CLUB, June 9, 2004.

"The Status of World Manufacturing," ROSEVILLE SENIORS, Roseville, Minnesota May 17, 2004.

"History and Decline of the Hudson Motor Car Company, HUDSON ESSEX TERRAPLANE CLUB, Arden Hills, Minnesota, April 17, 2004.

"Outsourcing: How Will the Face of Business Change?' to the 28TH ANNUAL INTERNATIONAL BUSINESS LAW INSTITUTE SPONSORED BY THE MINNESOTA STATE BAR ASSOCIATION, On April 14, 2004.

"The Turnaround Experience: Real World Lessons in Revitalizing Corporations," MINNESOTA TELECOM ASSOCIATION CONFERENCE, Minneapolis, Minnesota, March 23, 2004.

"Trends in Manufacturing," CATERPILLAR PAVING PRODUCTS, Brooklyn Park, Minnesota, February 16, 2004.

"The Status of Manufacturing in Minnesota," INSTITUTE OF FINANCIAL ECONOMICS, February 11, 2004.

"The Importance of the Manufacturing Industry to America," MINNESOTA BUSINESS FORUM, Richfield, Minnesota, January 28, 2004

"Status of Manufacturing Panel," COMMITTEE ON INTERNATIONAL RELATIONS, St. Paul, Minnesota, January 27, 2004

"Manufacturing in 2004," MINNESOTA PRECISION MANUFACTURING ASSOCIATION, Brooklyn Park, Minnesota, January 27, 2004

"The Status of Manufacturing in Minnesota," MINNESOTA DEPARTMENT OF PLANNING, January 15, 2004.

"Manufacturing in 2003," SERVICE CORPS OF RETIRED EXECUTIVES, December 17, 2003.

"The Status of Manufacturing in Minnesota in 2003," MEDTRONIC TECH FORUM, November 12, 2003.

"The Importance of Manufacturing," ENGINEERS CLUB OF MINNEAPOLIS, September 19, 2003

"Global Opportunities and Challenges for the Future of U.S. Manufacturing," Dave Beal and Fred Zimmerman, Council of Manufacturing Associations, Lake Geneva, Wisconsin, July 30-August 1, 2003.

"Prosperity and Production," SOCIETY OF MANUFACTURING ENGINEERS, Detroit, Michigan, May 28, 2003.

"Manufacturing Works: The Vital Link between production and Prosperity," MINNESOTA MANUFACTURING GETS GROWING AGAIN CONFERENCE, St. Paul, Minnesota, May 13, 2003

"Industry's Role in Society," STRATEGIC LEADERSHIP FORUM, Minneapolis, Minnesota April 22, 2003.

"The Manufacturing Situation Today," SOLAR PLASTICS MANAGERS MEETING, Minneapolis, Minnesota, April 16, 2003

"Manufacturing Works: The Vital Link between production and Prosperity," SOCIETY OF PLASTICS ENGINEERS, New Richmond, Wisconsin, February 25, 2003

"Manufacturing Works: The Vital Link between production and Prosperity," UNIVERSITY OF ST. THOMAS, St. Paul, Minnesota, January 22, 2003

"Status of US Manufacturing", Minnesota Department of Planning, Century College, November 8, 2002.

"Key Findings in Manufacturing Works" FUTURE OF MANUFACTURING SYMPOSIUM, Sponsored by the Hudson Institute and the German Marshall Fund, Indiana University, November 3-5, 2002

"Status of Manufacturing in Minnesota", LARSON-ALLEN CONFERENCE, St. Paul, Minnesota, October 29, 2002.

"Comments on corporate integrity", CHARACTER MATTERS CONFERENCE, Minneapolis, Minnesota, October 28, 2002

"Manufacturing Works: The Vital Link between production and Prosperity," MINNESOTA TECHNOLOGY, INC., Minneapolis, Minnesota, September 26, 2002

"Manufacturing Works: The Vital Link between production and Prosperity," MINNESOTA TECHNOLOGY, INC., Minneapolis, Minnesota, September 19, 2002

"Manufacturing's Role in the US Economy", ROTARY CLUB OF WESTERN WISCONSIN, Hudson, Wisconsin, September 12, 2002

"Manufacturing Works: The Vital Link between production and Prosperity," MINNESOTA ELECTRONIC DISTRIBUTORS ASSOCIATION, Minneapolis, Minnesota, August 23, 2002

"The Steel Industry and the 201 Tariffs," STEEL USERS CONFERENCE, North Oaks, Minnesota, August 21, 2002

"Reassessing Merger Mania", ROTARY CLUB OF MINNEAPOLIS, Minneapolis, Minnesota; July 12, 2002

"Manufacturing Works: The Vital Link between production and Prosperity," Pokagon Industrial Conference, Fort Wayne, Indiana, June 11, 2002

"Manufacturing Works: The Vital Link between production and Prosperity," Minnesota Taxpayers Association Annual Meeting, June 13, 2002

Description of the book, Manufacturing Works, MINNESOTA PRECISION MANUFACTURERS ASSOCIATION, Minneapolis, Minnesota, April 24, 2002

"Manufacturing: The Vital Link between Production and Prosperity", SERRA CLUB, Minneapolis, Minnesota, February 8, 2002

"Wood, coal, oil, wind and water: The history of American Energy Usage", 2002 THINK ST. PAUL LECTURE SERIES, Science Museum of Minnesota, January 30, 2002

"The economy after September 11", ST. LOUIS PARK ROTARY CLUB, October 15, 2001

"Manufacturing: America's Forgotten Fortress", TRIMIN SYSTEMS USER CONFERENCE, October 15, 2001

"Meeting the Customers Request", ROSEMOUNT GLOBAL OPERATIONS TEAM, Minneapolis, October 2, 2001

"Fair Play and Efficient Production", OAKDALE BUSINESS AND PROFESSIONAL ASSOCIATION, Oakdale, Minnesota, October 4, 2001

"The Status of Industry in a Slowing Economy", SENIOR INVESTORS FORUM, Roseville, Minnesota, September 10, 2001

"Trends in the Industrial Economy", AMERICAN PRODUCTION AND INVENTORY CONTROL SOCIETY, Minneapolis, June 12, 2001

"The Changing Nature of the Computer Industry", MINNETONKA COMMUNITY CENTER, Minnetonka, Minnesota, June 8, 2001

"The Status of the Industrial Economy", MINNESOTA PRECISION MANUFACTURERS ASSOCIATION, Owatonna, Minnesota, May 9, 2001



- “The Industrial Economy Looking Forward”, MINNESOTA CAREER DEVELOPMENT ASSOCIATION, St. Paul River Center Conference Center, April 19, 2001
- “Trend in the Industrial Economy”, CENTRAL MINNESOTA MANUFACTURERS ASSOCIATION, Aitkin, Minnesota, March 7, 2001 (25 people)
- “Minnesota Manufacturing and Technology”, MINNESOTA TECHNOLOGY CONFERENCE, Alexandria, Minnesota, September 28, 2000
- “The Strategic Importance of Manufacturing in the Global Economy”, Seminar on Analysis and Use of Labor Market Information for Policy Formulation, US DEPARTMENT OF LABOR, August 30, 2000
- “Minnesota’s Competitive Position”, Land of Lakes Rotary Club, Minneapolis, Minnesota, July 26, 2000
- “Trends in manufacturing”, KURT MANUFACTURING MANAGEMENT SYMPOSIUM, April 12, 2000
- “What’s ahead in manufacturing”, MINNESOTA PRECISION MANUFACTURERS ASSOCIATION, Brooklyn Park, Minnesota, March 22, 2000
- “The Economy, Productivity and Real Work”, NOREX CORPORATION KEY LEADER PROGRAM, Bloomington, Minnesota, February 3, 2000
- “The Industrial Economy OF the Early 21st Century”, NATIONAL ASSOCIATION OF PURCHASING MANAGEMENT, January 20, 2000
- “The Industrial Economy Looking Ahead”, ROTARY CLUB OF WESTERN WISCONSIN, January 5, 2000
- “The Strategic Importance of Manufacturing in the Global Economy”, Seminar on Analysis and Use of Labor Market Information for Policy Formulation, US DEPARTMENT OF LABOR, November 3, 1999.
- “Business Strategy or Lack Thereof”, ROTARY CLUB OF WESTERN WISCONSIN, June 24, 1999
- “The Relocation of Industry”, MINNESOTA DEPARTMENT OF PLANNING, May 20, 1999
- “The Status of US Manufacturing”, ST. PAUL MIDWAY ROTARY CLUB, April 29, 1999
- “The Relocation of Industries”, Seminar on Analysis and Use of Labor Market Information for Policy Formulation, US DEPARTMENT OF LABOR, October 21, 1998.
- “Manufacturing Technology Panel”, GOVERNOR’S ECONOMIC SUMMIT, September 18, 1998
- “The Relocation of Industry”, ASSOCIATION FOR MANUFACTURING EXCELLENCE -- TOUR AMERICA -- 1998, September 17, 1998
- “The Migration of Industry”, MINNESOTA PRECISION MANUFACTURING ASSOCIATION, November 19, 1997
- “Alternative Measures of Industrial Progress”, Seminar on Analysis and Use of Labor Market Information for Policy Formulation, US DEPARTMENT OF LABOR, October 14, 1997.
- “Measuring Industrial Relocation -- and What it Means”, SOCIETY OF MANUFACTURING ENGINEERS, Minneapolis, Minnesota, April 16, 1997
- “Competing in the Years Ahead”, SOCIETY OF MANUFACTURING ENGINEERS, Clear Lake, Iowa, April 2, 1997
- “Looking Ahead for Manufacturing”, MINNESOTA TECHNOLOGY STRATEGIC VISIONING CONFERENCE, St. Cloud, Minnesota, March 26, 1997
- “The role of Engineering in Society Faced with World Competition”, STARKEY LABORATORIES ENGINEERS WEEK, Minnetonka, Minnesota, February 26, 1997
- “Competing in a Hostile Environment”, STRATEGIC LEADERSHIP FORUM, Minneapolis, Minnesota, January 16, 1997
- “Factors Influencing the Future of Intermediate Stage Manufacturers”, MINNESOTA PRECISION MANUFACTURERS ASSOCIATION, October 15, 1996
- “The Use of Labor Market Data in Assessing Competitiveness” U.S. DEPARTMENT OF LABOR Seminar On the Use of Labor Market Statistical Information for Policy Making in Less Developed Countries, St. Paul, October 9, 1996
- “What the Data on Manufacturing Suggests about Global Competition”, Labor Market Data User’s Conference, MINNESOTA DEPARTMENT OF EMPLOYMENT SECURITY, September 17, 1996.
- “The Emerging Nature of Manufacturing Competition”, HARTZELL MANUFACTURING, INC. Fall Conference, September 9, 1996
- “Changing Employment Patterns in Industry”, CAREER PLANNING AND ADULT DEVELOPMENT NETWORK, Minneapolis, November 3, 1995
- “Our Manufacturing Future”, AMERICAN SOCIETY OF MECHANICAL ENGINEERS, Minneapolis, February 13, 1996
- “Key Factors in Competitiveness”, NOREX CORPORATION KEY LEADER PROGRAM, Bloomington, Minnesota, February 8, 1996
- “Measurement of the Industrial Economy”, EXECUTIVE GROUP ROUNDTABLE OF NOREX Inc., Bloomington, Minnesota, February 8, 1996
- “Our Manufacturing Future”, AMERICAN SOCIETY OF MECHANICAL ENGINEERS, Minneapolis, February 13, 1996
- “Key Factors in Competitiveness”, NOREX Inc. KEY LEADER PROGRAM, Bloomington, Minnesota, February 8, 1996
- “Job Opportunities in a Changing Economy”, Dunwoody Technical Institute, November 3, 1995
- “Minnesota’s Competitive Position”, MINNESOTA INDUSTRIAL DISTRIBUTORS ASSOCIATION, Minneapolis, September 26, 1995
- “The Competitive Position of the United States” U.S. DEPARTMENT OF LABOR Seminar On the Use of Labor Market Statistical Information for Policy Making in Less Developed Countries, St. Paul, September 27, 1995
- “Defense Conversion and Programmatic Supplementary Production”, MINNESOTA CONSORTIUM FOR DEFENSE CONVERSION, April 25, 1995
- “Manufacturing Productivity in Minnesota”, MINNESOTA ASSOCIATION OF METAL FINISHERS, 13, 1995
- “An Appraisal of U.S. Education With Respect to its Role in International Competition”, MINNESOTA COMPETITIVENESS TASK FORCE, April 11, 1995

"The Role of High Value--Added Production in Industrial Development," U.S. DEPARTMENT OF LABOR Seminar On the Use of Labor Market Statistical Information for Policy Making in Less Developed Countries, St. Paul, September 29, 1994  
 "Emphasizing the Higher--valued in Economic Development", presentation to a visiting delegation of fourteen officials involved in industrial development in Norway, St. Paul, September 28, 1994  
 "Minnesota Manufacturing's Role in Economic Development", CITIZEN'S LEAGUE, Minneapolis, September 13, 1994  
 "Technology's Role in Economic Development", EDISON ELECTRIC INSTITUTE CONFERENCE ON ECONOMIC DEVELOPMENT, Minneapolis, September 15, 1994  
 "Minnesota's Manufacturing Future", Annual Business Seminar, LIBERTY STATE BANK, May 12, 1994  
 "Micro and Macro Views of the Industrial Economy," U.S. DEPARTMENT OF LABOR SEMINAR ON THE USE OF LABOR MARKET STATISTICAL INFORMATION FOR POLICY MAKING IN LESS DEVELOPED COUNTRIES, St. Paul, October 19, 1993  
 "The Industrial Economy Revisited," Minneapolis Rotary Club, September 24, 1993  
 "Continuous Improvement," MINNESOTA TECHNOLOGY INC. and FAIRMONT INDUSTRIAL DEVELOPMENT COMMISSION, June 10, 1993  
 "Excellence in Education -- What We Might Do," 3M TECHNICAL FORUM, St. Paul, June 9, 1993  
 "Managing a Successful Turnaround," NATIONAL ASSOCIATION OF CORPORATE DIRECTORS, Minneapolis, March 30, 1993  
 "The Influence of Rapid Prototyping on Manufacturing," PROTOTYPING FOR MANUFACTURING CONFERENCE, Minneapolis, Minnesota, February 10, 1993  
 "Restructuring America's Manufacturing Wealth," QUEST ENGINEERING MANAGERS MEETING, October 29, 1992  
 "Building a Stronger Industrial Economy," ASSOCIATION FOR MANUFACTURING EXCELLENCE -- TOUR AMERICA -- 1992, September 14, 1992  
 "Growth or Failure from Adversity," PENTAIR CORPORATION WORLD--WIDE MANAGERS MEETING, July 22, 1992  
 "Manufacturing Strategy in a Turnaround Setting," ANDERSEN CORPORATION PRODUCT DEVELOPMENT AND ENGINEERING MANAGERS MEETING, April 24 & June 10, 1992  
 "Job Loss in Minnesota: What's Happening to Manufacturing Jobs in the State," Working Group on Economic Dislocation Early Warning Conference, June 15, 1992  
 Commencement Address, Dunwoody Technical Institute, May 29, 1992  
 "The Turnaround Experience; Real World Lessons in Revitalizing Corporations," NATIONAL ASSOCIATION OF ACCOUNTANTS -- Northstar Chapter, May 14, 1992  
 "Restructuring America's Manufacturing Wealth," QUEST ENGINEERING MANAGERS MEETING, October 29, 1992  
 "Building a Stronger Industrial Economy," ASSOCIATION FOR MANUFACTURING EXCELLENCE -- TOUR AMERICA -- 1992, September 14, 1992  
 "Growth or Failure from Adversity," PENTAIR CORPORATION WORLD--WIDE MANAGERS MEETING, July 22, 1992  
 "Manufacturing Strategy in a Turnaround Setting," ANDERSEN CORPORATION PRODUCT DEVELOPMENT AND ENGINEERING MANAGERS MEETING, April 24 & June 10, 1992  
 "Job Loss in Minnesota: What's Happening to Manufacturing Jobs in the State," WORKING GROUP ON ECONOMIC DISLOCATION EARLY WARNING CONFERENCE, June 15, 1992  
 Commencement Address, DUNWOODY TECHNICAL INSTITUTE, May 29, 1992  
 "The Turnaround Experience; Real World Lessons in Revitalizing Corporations," NATIONAL ASSOCIATION OF ACCOUNTANTS -- Northstar Chapter, May 14, 1992  
 "Advanced Programs in Manufacturing Engineering," SOCIETY OF MANUFACTURING ENGINEERS -- Northwest Wisconsin Chapter, March 10, 1992  
 "Industrial Engineering and Modern Manufacturing," INDUSTRIAL ENGINEERS CLUB, U. of Minnesota, March 2, 1992  
 "Survival and Automation," SOCIETY OF MANUFACTURING ENGINEERS -- Minneapolis Chapter, January 8, 1992  
 "Manufacturing for Survival," SOCIETY OF MANUFACTURING ENGINEERS -- Rochester Chapter, December 12, 1991  
 "Managing Product Development for Future Trends," 3M TECHNICAL FORUM, October 16, 1991  
 "Survival and Automation," AMERICAN PRODUCTION AND INVENTORY CONTROL SOCIETY -- Twin Cities Chapter, June 11, 1991  
 "Time, Your Competitive Market Advantage," Profiting During Recessionary Times Conference sponsored by the AUTOMATION FORUM, April 25, 1991  
 "The Importance of Manufacturing Expertise in Company Turnarounds," Society of Manufacturing Engineers -- several dates and locations  
 "Automation and Labor Cooperation," UNITED STATES POST OFFICE Family Day, June 2, 1991  
 "The Role of Manufacturing in Company Turnarounds," AMERICAN SOCIETY FOR QUALITY CONTROL -- Section 1214, Owatonna, Minnesota, April 17, 1990  
 "8 Companies Succeeded, 7 Didn't," TENNANT QUALITY CONFERENCE, September 15, 1989  
 "The Minnesota Economy," SOCIETY OF MANUFACTURING ENGINEERS -- Minneapolis Chapter, October 5, 1988  
 "Turnaround is Fair Play and Efficient Production," SOCIETY OF MANUFACTURING ENGINEERS -- Central Minnesota Chapter, October 5, 1988

## Recent Media Appearances

- "Leadership Insights- Masters of Change- Technology and Innovation," B. Kyle, PRECISION MANUFACTURING, November/December 2013.
- "Rural manufacturing leads Minnesota rebound after years of contraction, Neal St. Anthony, MINNEAPOLIS STAR TRIBUNE, September 9, 2013.
- "Bill Kuban: Legend and Legacy," B. Kyle, PRECISION MANUFACTURING, Sep/Oct 2012.
- "Avoiding razor burn on your wallet," Jeff DeMars, NBC KARE 11 NEWS, October 1, 2012.
- "Economic impact of Apple I Phone," KSTP Channel 5 News, September 12, 2012.
- "Euro debt and G-20 Conference," Dave Lee Morning Show, 830WCCO RADIO, June 21, 2012.
- "Forging a steel deal in St. Paul," Neal St. Anthony, MINNEAPOLIS STAR TRIBUNE, June 4, 2012.
- "Proto Labs learns a long-term lesson," Neal St. Anthony, MINNEAPOLIS STAR TRIBUNE, May 13, 2012.
- "Early learning supporter: What team are they on?" Neal St. Anthony, MINNEAPOLIS STAR TRIBUNE, March 31, 2012.
- "Minnesota seniors facing a spike in long-term care cost," Warren Wolfe, MINNEAPOLIS STAR TRIBUNE, March 19, 2012.
- "What's Your International Gam Plan?" PRECISION MANUFACTURING, November/December 2011.
- "Inside Track: Precision's hard work pays off locally, Neal St. Anthony, MINNEAPOLIS STAR TRIBUNE, September 24, 2011.
- "Manufacturers keep the cash, Susan Feyder, MINNEAPOLIS STAR TRIBUNE, August 14, 2011
- "Cargill quietly continues to grow, Tom Webb, PIONEER PRESS, August 11, 2011.
- "Making something out of manufacturing, Eric Wieffering, MINNEAPOLIS STAR TRIBUNE, April 1, 2011
- "Auto industry dominates Super Bowl commercials," Rena Sarigianopoulos, NBC KARE 11 NEWS, February 7, 2011.
- "Was DEED asleep on Lockheed?", Scott Carlson and Brian Johnson, FINANCE & COMMERCE, November 19, 2010.
- "Closing of Lockheed another hit to market," Scott Carlson and Bill Clements, FINANCE & COMMERCE, November 18, 2010.
- "Lockheed Martin to close Eagan plant, shed 1,000 jobs," Karla Hult, NBC KARE 11 NEWS, November 18, 2010.
- "Premium: 3M: Knocking off its own goods," Susan Feyder, MINNEAPOLIS STAR TRIBUNE, October 2, 2010.
- "Politicians' plea for Ford plant was a nonstarter, Neal St. Anthony, MINNEAPOLIS STAR TRIBUNE, August 28, 2010.
- "Goodrich Corp. breaks ground on major Burnsville expansion, Scott Carlson, FINANCE & COMMERCE, August 9, 2010.
- By Scott Carlson "In a shift, more companies deciding to make, not buy: Many manufacturers are reversing the decades-old outsourcing trend, preferring to build more parts in-house." Susan Feyder, MINNEAPOLIS STAR TRIBUNE, August 8, 2010.
- "Close to home crisis hits close to home," Dee DePass, MINNEAPOLIS STAR TRIBUNE, May 28, 2010.
- "Minnesota: Slow progress on jobs front," Dee DePass, MINNEAPOLIS STAR TRIBUNE, May 21, 2010.
- "3M takes friendly rival DuPont to court over licensing fees," Susan Feyder, MINNEAPOLIS STAR TRIBUNE, April 23, 2010.
- "Anniversary of Lehman Brothers bankruptcy," Mondale & Jones, 830WCCO Radio, September 14, 2009
- "Turning Around Schools in Need," Victor Rivero, DISTRICT ADMINISTRATION, September 2009.
- "Cargill profits in perilous economy," ST. PAUL PIONEER PRESS, Tom Webb, August 18, 2009.
- "A hard-hit manufacturing industry looks forward in Minnesota," Liz Fedor, MINNEAPOLIS STAR TRIBUNE, June 14, 2009
- "Dealers to bear brunt of GM cuts in Minnesota," Dee DePass and Liz Fedor, MINNEAPOLIS STAR TRIBUNE, June 2, 2009
- "Chrysler Bankruptcy, KARE11 TV, April 30, 2009.
- "3M: Manufacturing giant becomes technology-driven powerhouse," Scott Carlson, FINANCE & COMMERCE, March 17, 2009.
- "AIG bonuses," Dave Lee Morning News, WCCO Radio, March 16, 2009
- "Small manufacturers work to limit utilities' ownership of unrelated businesses," Liz Fedor, MINNEAPOLIS STAR TRIBUNE, March 10, 2009
- "Leaders gather to search for budget solutions," Bill Hudson, WCCO TV, January 5, 2009
- "Minnesota blue chips find deals in the downturn: Troubled economy is offering best growth opportunities in years," Tom Webb, ST. PAUL PIONEER PRESS, December 23, 2008
- "Auto Bailout," Jim Souhan's show, KSTP RADIO, December 12, 2008
- "For Twin Cities auto dealers, 'a quiet crisis,' H.J. Cummins, MINNEAPOLIS STAR TRIBUNE, December 11, 2008
- "Big Auto bailout: A lot at stake for Minnesota -- but is it a good idea?," Sharon Schmickle, MINN POST, Dec. 11, 2008.
- "The Auto Bailout," Jim Souhan, KSTP Radio, December 10, 2008.
- "Manufacturing an economic recovery," MINNESOTA PUBLIC RADIO, Broadcast: Midday, November 21, 2008.
- "Global ride gets bumpy for 3M," Dee DePass, MINNEAPOLIS STAR TRIBUNE, October 14, 2008
- "Comment on frequency of business fraud," WCCO RADIO, October 8, 2008
- "Manufacturers bide time, bite their nails," Dee DePass, MINNEAPOLIS STAR TRIBUNE, September 24, 2008
- "Congrats to 'Manufacturing Success, Upper Midwest,'" SHOP FLOOR MAGAZINE, Wednesday, July 23, 2008
- "For St. Paul's Ford plant, hopes and caution," Dee DePass, MINNEAPOLIS STAR TRIBUNE, June 27, 2008
- "Ex-CEO sounds energy policy alarm," Neal St. Anthony, MINNEAPOLIS STAR TRIBUNE, May 30, 2008
- "3M to limit its pension benefits for new hires," Dee DePass, MINNEAPOLIS STAR TRIBUNE, April 1, 2008
- "Downsizing's human toll," Dee DePass, MINNEAPOLIS STAR TRIBUNE, March 30, 2008
- "Rebate might be boost now, but we'll pay for it later," Neal St. Anthony, MINNEAPOLIS STAR TRIBUNE, Feb 12, 2008
- "UnitedHealth CEO returns money from backdated stock options", WCCO RADIO Minneapolis, Minnesota, December 7, 2007

"UnitedHealth CEO reaches settlement with SEC", WCCO RADIO Minneapolis, Minnesota, December 6, 2007

"Exporters have gained from the weaker dollar", Neal St. Anthony, MINNEAPOLIS STAR TRIBUNE, October 6, 2007.

"SPIRAL UP," Jane C. Linder, AMACON, 2007

"Equity Firm Buys Machinist Remmele", ST. PAUL PIONEER PRESS, April 3, 2007.

"Minnesota Manufacturing: Competing with the World," Gene Rebeck, TWIN CITIES BUSINESS MONTHLY, April 2007.

"Pressure in the Boardroom," MINNEAPOLIS STAR TRIBUNE, October 21, 2006.

"Remembering Bill Norris," MINNESOTA PUBLIC RADIO, August 21, 2006.

"A crosstown tip of the cap for a job well done: Pioneer Press business columnist Dave Beal calls it a career after 2,300 columns since 1981 — most of them on the mark," Neal St. Anthony, MINNEAPOLIS STAR TRIBUNE, July 17, 2006

"Fred Zimmerman on Engineering," ENGINEERING MINNESOTA, July 2006, Vol 42. No.5

"Up Close with Fred Zimmerman", Melissa DeBilzan, PRECISION MANUFACTURING JOURNAL, May/June 2006.

"UnitedHealth pay for senior management raising eyebrows," Allen Costantini, KARE 11 TV, April 20, 2006.

"UnitedHealth extended its stock-options bounty to directors: The 10 outsiders now on the insurer's board have cashed in \$159 million in stock options," David Phelps and Patrick Kennedy, MINNEAPOLIS STAR TRIBUNE, April 19, 2006

"Ford closes a chapter of St. Paul history," Mike Mulcahy, MINNESOTA PUBLIC RADIO, April 14, 2006.

"The end of the line: Ford officials said the St. Paul plant and a truck plant in Virginia will be closing in 2008," Dee DePass, MINNEAPOLIS STAR TRIBUNE, April 14, 2006

"Minnesota's China strategy: Exports from Minnesota to China are soaring, but the figures reveal a tangled, circuitous trade relationship," Mike Meyers, MINNEAPOLIS STAR TRIBUNE, April 08, 2006.

"Survey shows optimism among manufacturers," Sam Black, THE BUSINESS JOURNAL, Minneapolis/St. Paul, January 27, 2006

"Ford to stay in St. Paul for now," Dee DePass, MINNEAPOLIS STAR TRIBUNE, January 24, 2006.

"Mass job loss: Is it a calamity or a blip?," Mike Meyers, MINNEAPOLIS STAR TRIBUNE, January 5, 2006.

"Late bid to save St. Paul Ford plant," Laura McCallum, MINNESOTA PUBLIC RADIO, January 4, 2006.

"How do big companies select top executives?" H.J. Cummins, MINNEAPOLIS STAR TRIBUNE, December 28, 2005.

"Glue maker seeks advice on handling higher prices," Ellen P. Gabler, THE BUSINESS JOURNAL, Minneapolis/St. Paul, December 2, 2005.

"Minnesota's biggest factories: Will they stay here?," John Welbes, ST. PAUL PIONEER PRESS, December 11, 2005.

"Workers, good little pickup let down by Ford in St. Paul," Doug Grow, MINNEAPOLIS STAR TRIBUNE, December 9, 2005, <http://www.startribune.com/stories/465/5774377.html>

"Factory job market tough," Julie Forster, ST. PAUL PIONEER PRESS, December 11, 2005.

"Pawlenty's Ford talks may focus on fuel," Mike Meyers, MINNEAPOLIS STAR TRIBUNE, December 5, 2005.

"3M names new CEO", Toni Randolph, MINNESOTA PUBLIC RADIO, December 7, 2005.

"If Ford plant closes, workers may need new training," KARE 11 TV, December 7, 2005.

"Pawlenty's Ford talks may focus on fuel," Mike Meyers, MINNEAPOLIS STAR TRIBUNE, December 6, 2005.

"Report of plant closing lights a fire under Ford talks," Dee DePass, MINNEAPOLIS STAR TRIBUNE, December 3, 2005.

"Governor hopes to meet with Ford officials," KARE 11 TV, December 6, 2005, [http://www.kare11.com/news/news\\_article.aspx?storyid=113046](http://www.kare11.com/news/news_article.aspx?storyid=113046)

"Ford plant's strengths may not save it," Mike Meyers, MINNEAPOLIS STAR TRIBUNE, December 2, 2005, <http://www.startribune.com/stories/535/5760918.html>

"Ford plant among those likely to close in 2006," KARE 11 TV, December 2, 2005, [http://www.kare11.com/news/news\\_article.aspx?storyid=112793](http://www.kare11.com/news/news_article.aspx?storyid=112793)

"GM cuts point to shift in industry," Mike Meyers, MINNEAPOLIS STAR TRIBUNE, November 21, 2005, <http://www.startribune.com/stories/535/5740699.html>

"High-tech hinge maker's CEO takes on big challenges, small pay," Neal St. Anthony, MINNEAPOLIS STAR TRIBUNE, November 11, 2005, <http://www.startribune.com/stories/1069/5722662.html>

"Don't call this buyout a 'hostile takeover,'" Al Checchi, MINNEAPOLIS STAR TRIBUNE, October 24, 2005

"Future of St. Paul's Ford plant on the line," William Wilcoxon, MINNESOTA PUBLIC RADIO, October 19, 2005

"U.S. Commerce Secretary, Minnesota Governor To Address Manufacturing Summit," PR NEWSWIRE US, October 18, 2005

"Business Forum: Disney case still a landmark," Phil Garon, MINNEAPOLIS STAR TRIBUNE, August 15, 2005.

"Is there any future in manufacturing?" Gary Eichten, MINNESOTA PUBLIC RADIO, August 11, 2005.

"Mechanics seek solidarity for strike," KARE11 TV, Minneapolis, Minnesota, August 11, 2005.

"Work & Life: Executives insulated from NWA pension fears," H.J. Cummins, MINNEAPOLIS STAR TRIBUNE, August 11, 2005, <http://www.startribune.com/stories/535/5554119.html>

"China raises value of yuan a bit; Few visible effects on U.S. prices, trade expected," Mike Meyers, MINNEAPOLIS STAR TRIBUNE, December 5, 2005, <http://web.lexis-nexis.com/universe/>

"Small Business: The art of multiple strategies," Larry Werner, MINNEAPOLIS STAR TRIBUNE, July 18, 2005.

"Boeing Pay Is a Match For Chief," Alexei Barrionuevo, THE NEW YORK TIMES, July 7, 2005.

"Secret society or a smarter solution?" H.J. Cummins, MINNEAPOLIS STAR TRIBUNE, July 4, 2005.

"James McNerney largely lived up to his advance billing at 3M Co." ST. PAUL PIONEER PRESS, July 1, 2005.

"McNerney gets kudos from investors, but critics decry focus on short term," Mike Meyers, Star Tribune National Economics Correspondent, MINNEAPOLIS STAR TRIBUNE, July 1, 2005, <http://www.startribune.com/stories/535/5485378.html>

"NWA Mechanics Get Layoff Notices," Rick Fuentes, WCCO CHANNEL 5 TELEVISION, Jun 16, 2005.

"Fighting it out on the other battlefield," Ronald M. Bosrock, MINNEAPOLIS STAR TRIBUNE, May 30, 2005.

"Peter Platzter, entrepreneur and machine tool dealer," Janet Moore, MINNEAPOLIS STAR TRIBUNE, May 29, 2005.

"8 is Enough: A look at the most common mistakes manufacturers make and how to fix them." William Gurstelle, MINNESOTA TECHNOLOGY, Spring 2005, [http://www.minnesotatechnology.org/publications/magazine/Spring 2005/8 is Enough.asp](http://www.minnesotatechnology.org/publications/magazine/Spring%2005/8%20is%20Enough.asp)

"Cold hard success," Larry Werner, MINNEAPOLIS STAR TRIBUNE, May 9, 2005, <http://www.startribune.com/stories/535/5390405.html>

"Spotlight Letters," ST. PAUL PIONEER PRESS, May 2, 2005

"Manufacturing still matters, and should matter, to Pittsburgh," Steve Massey, PITTSBURGH POST - GAZETTE, February 27, 2005, Sunday, <http://www.post-gazette.com/pg/05058/463172.stm>

"Welcome to the Big Time: What does it take to sell to large companies? Skill, persistence, and a drive to improve." Mary Lahr Schier, MINNESOTA TECHNOLOGY MAGAZINE, Winter 2005.

"Minnesota Technology program could be cut again by Bush's budget," Mark Reilly, Senior Reporter, THE BUSINESS JOURNAL, Minneapolis/St. Paul, February 14, 2005, <http://twincities.bizjournals.com/twincities/stories/2005/02/14/story8.html>

"Small Business: Selling service saves the day," Larry Werner, MINNEAPOLIS STAR TRIBUNE, February 7, 2005, <http://http://www.startribune.com/stories/535/5224054.html>

"U.S. added 2.2 million jobs in '04," Mike Meyers, Star Tribune National Economics Correspondent, MINNEAPOLIS STAR TRIBUNE, January 8, 2005, <http://www.startribune.com/stories/535/5175543.html>

"Painting the future: Workshop panel debates whether JIT Powder Coating should expand," Ellen P. Gabler, THE BUSINESS JOURNAL, Minneapolis/St. Paul, January 7, 2005

"Keeping Ford," Jennifer Bjorhus, ST. PAUL PIONEER PRESS, October 7, 2004.

"In search of a pickup," Dee Depass, MINNEAPOLIS STAR TRIBUNE, October 4, 2004.

"U.S. commerce chief gets earful from Minnesota manufacturers," Dee Depass, MINNEAPOLIS STAR TRIBUNE, September 11, 2004.

"Factory jobs starting to make a comeback," Dee Depass, MINNEAPOLIS STAR TRIBUNE, August 25, 2004.

"Manufacturing employment shows signs of a rebound," THE ASSOCIATED PRESS STATE & LOCAL WIRE, August 25, 2004.

"Scotch tape judgment sticks," Dee Depass, MINNEAPOLIS STAR TRIBUNE, July 1, 2004

"Minnesota job data: Mostly rose, some thorn," Mike Meyers and H.J. Cummins, MINNEAPOLIS STAR TRIBUNE, June 11, 2004.

"Manufacturing Tomorrow Summit," Liz Kuntz, PRECISION MANUFACTURING, May-June, 2004.

"High fuel costs spilling over," Dee De Pass, MINNEAPOLIS STAR TRIBUNE, May 27, 2004.

"Business beat: Washed offshore," Dave Beal, Pioneer Press Columnist, SAINT PAUL PIONEER PRESS, Wed, Apr. 07, 2004.

"Taxpayers League *Live!*", AM 1280, March 6, 2004.

"Caught in the big squeeze," Mike Meyers, Star Tribune National Economics Correspondent, MINNEAPOLIS STAR TRIBUNE, February 29, 2004 <http://www.startribune.com/stories/535/4634081.html>

"As competition heats up, companies turn to automation," Dee DePass, MINNEAPOLIS STAR TRIBUNE, February 15, 2004.

"Afloat in choppy waters," Larry Werner, MINNEAPOLIS STAR TRIBUNE, February 9, 2004.

"BOOMTOWN USA: THE 7-1/2 KEYS TO BIG SUCCESS IN SMALL TOWNS," Jack Schultz, National Association of Industrial and Office Properties, February 1, 2004.

"Intermediate Suppliers in Minnesota Manufacturing," Bill Catlin, MINNESOTA PUBLIC RADIO, January 15, 2004

"OUTSOURCING FOR RADICAL CHANGE," Jane C. Linder, AMACON, 2004.

"Manufacturing limps as markets walk tall ; Factory production inches up," Mike Meyers; Staff Writer, MINNEAPOLIS STAR TRIBUNE, 17 January 2004

"Minnesota's Manufacturing Industry," Gary Eichten, MINNESOTA PUBLIC RADIO, December 9, 2003.

"Factory jobs unlikely to return to 1990s levels," Bill Catlin, MINNESOTA PUBLIC RADIO, December 8, 2003.

"Manufacturing rebounds but bounce gets smaller," Sam Black, Staff reporter, THE BUSINESS JOURNAL, December 5, 2003.

"A third upbeat month for jobs," David Phelps and Larry Werner, MINNEAPOLIS STAR TRIBUNE, 8 November 2003

"Global Competitions," Mary Lahr Schier, MINNESOTA TECHNOLOGY® MAGAZINE, Special Tech Issue, 2003

"The Ripple Effect: Everyone wins when manufacturers get lean," Kim Rock, TECH TRENDS E-NEWSLETTER, October 2002

"Cheap labor and a budding manufacturing sector have made China a tough competitor for Minnesota companies," Mary Lahr Schier, MINNESOTA TECHNOLOGY® MAGAZINE, Winter 2003

"Factory shutdowns are sending shivers through communities across the country.," Dave Beal, SAINT PAUL PIONEER PRESS, Knight Ridder/Tribune Business News, 12 October 2003

"St. Thomas Professor Fred Zimmerman on A Service vs. A Manufacturing economy," Jim Mensey, ENGINEERING MINNESOTA, , Vol. 39 Number 9, October 2003,

"Ford plant safe through '07 ; Cutbacks won't affect 2,100 St. Paul jobs," John Reinan; Staff Writer, MINNEAPOLIS STAR TRIBUNE, 3 October 2003

"Traditional Industry Sectors Supplant Minnesota's Manufacturing Losses," Jennifer Bjorhus, SAINT PAUL PIONEER PRESS, Knight Ridder/Tribune Business News 1,554 words 7 September 2003

"Minnesota tech execs ask government's help," Susan E. Peterson; Staff Writer, MINNEAPOLIS STAR TRIBUNE, 15 July 2003

"Medical Device Firm Boston Scientific Plans Minnesota-Area Plant," Jim McCartney, SAINT PAUL PIONEER PRESS, Minn. Knight Ridder/Tribune Business News 3 July 2003

"Industry indicator inches higher," Dee DePass; Staff Writer, MINNEAPOLIS STAR TRIBUNE, 568 words 2 July 2003

"Redesigned Ford Ranger Faces Stiff Competition," Jennifer Bjorhus, SAINT PAUL PIONEER PRESS, Minn. Knight Ridder/Tribune Business News 14 June 2003

- "Struggling BMC restructures in Europe, will explore 'strategic alternatives'", Dee DePass, MINNEAPOLIS STAR TRIBUNE, June 28, 2003
- "Ford adds snazzy new features, but the local plant's future hinges on a total redesign," ST. PAUL PIONEER PRESS, Jennifer Bjorhus, June 15, 2003.
- "Manufacturing Works: The Vital Link Between Production and Prosperity," QUALITY PRESS NEWS, American Society for Quality, June 2003.
- "St. Thomas business school to follow two tracks," Neal St. Anthony, MINNEAPOLIS STAR TRIBUNE, May 28, 2003
- "Business Basics," KCCO RADIO, Minneapolis, Minnesota, May 21, 2003 (Scheduled)
- "Business Basics," KCCO RADIO, Minneapolis, Minnesota, May 14, 2003
- "Business Basics," KCCO RADIO, Minneapolis, Minnesota, May 7, 2003
- "Interstate Highways Are Secret Of Some Rural Areas' Success," by Carlos Tejada, Staff Reporter, THE WALL STREET JOURNAL, Page A-2, May 2, 2003
- "Business Basics," KCCO RADIO, Minneapolis, Minnesota, April 30, 2003
- "Business Basics," KCCO RADIO, Minneapolis, Minnesota, April 23, 2003
- ECONOMIC DEVELOPMENT MARKETING LETTER, A Blane, Canada Ltd. Publication, March 2003, Volume: 6, Issue: e/3, ISBN 1527-5175
- "Manufacturing Matters!", Tom Dossenbach, *WOOD AND WOOD PRODUCTS*, March 2003.
- "The impact of the Iraq war on manufacturing," WCCO CHANNEL 4 TV, March 26, 2003.
- "Manufacturing firm selling off 4 industrial buildings," Sam Black and Scott Smith, THE BUSINESS JOURNAL, February 24, 2003
- "St. Paul, Minn., Watches More Manufacturing Jobs Drain away." by Jennifer Bjorhus ST. PAUL PIONEER PRESS, Jan. 29, 2003.
- "Doing Reel good –company's patience pays off," Neal St. Anthony, STAR TRIBUNE, N Jan. 24, 2003.
- "Market for small manufacturers dries up," ST. PAUL PIONEER PRESS, Jan. 15, 2003.
- "Small factory deal dry spell Buyouts are harder to come by for small companies that were already hit hard by downturn in economy," ST. PAUL PIONEER PRESS, Jennifer Bjorhus, Jan. 10, 2003.
- "Corporate corner: Business people: Fred Zimmerman, a professor at the St. Paul-based University of St. Thomas, received a lifetime membership award from the Minnesota Precision Manufacturing Association." ST. PAUL PIONEER PRESS, Jan. 10, 2003.
- "Manufacturing situation in Minnesota", MINNESOTA PUBLIC RADIO, Dan Olson, St. Paul, January 9, 2003
- "The Other Bubble" , Dot-coms had a higher profile crash, but the manufacturing sector has gone through its own boom and bust in the last 12 years., STAR TRIBUNE, Susan E. Peterson; Staff Writer , January 4, 2003.
- "La necesidad de construir una industria manufacturera fuerte," MANAGEMENT HERALD, Buenos Aires, Argentina, January 2003.
- "Thinking outside the country ; Minnesota manufacturing exports have had a rough year, but state and company officials see opportunities for growth in 2003," MINNEAPOLIS STAR TRIBUNE, Dee DePass; Staff Writer, December 28, 2002.
- "Quarterly output surges," MINNEAPOLIS STAR TRIBUNE, December 5, 2002.
- "Manufacturing downturn hits entire state", MINNESOTA PUBLIC RADIO, Bill Catlin, St. Paul, December 2, 2002
- "Biblio-file 2002," IIE SOLUTIONS, Jane Gaboury, 1 December 2002.
- "CURSED: A move to new headquarters often foretells a company's stock decline," MINNEAPOLIS STAR TRIBUNE, Eric Wieffering; Staff Writer, 17 November 2002.
- "As BMC foundered, CEO was lining in Paris," MINNEAPOLIS STAR TRIBUNE, October 14, 2002
- "Due diligence, was in Richfield, CEO was in Paris," MINNEAPOLIS STAR TRIBUNE, October 13, 2002
- "Charlotte, N.C.-Area Manufacturers Say They Feel Overshadowed by Big Banks," THE CHARLOTTE OBSERVER, N.C. , Tony Mecia, 9 September 2002.
- "Attacks hurt business but scandals did, too." THE BUSINESS JOURNAL, September 5, 2002.
- "The importance of manufacturing. (Shop Talk).(Manufacturing Works: The Vital Link Between Production and Prosperity) (book review)," MODERN MACHINE SHOP, Katherine A. Kelley, 1 August 2002
- "Manufacturing is key to economic stability. (Assembly Lines)," ASSEMBLY MAGAZINE, 1 August 2002, ISSN: 1050-8171; Volume 45; Issue 9.
- "Book of the Month. *Manufacturing Works: The Vital Link between production and Prosperity*," IIE SOLUTIONS, August 2002.
- "3M Results and problems on Wall Street", MINNESOTA PUBLIC RADIO, July 23, 2002.
- "Manufacturing data shows both sides of same coin," CENTRAL NEW YORK BUSINESS JOURNAL, July 19, 2002.
- "Not my problem, MINNEAPOLIS STAR TRIBUNE, Jackie Mah; Staff Writer, 19 July 2002.
- "Importance of US manufacturing economy", WBIX BOSTON, July 17, 2002.
- "Manufacturing STILL MATTERS," US INDUSTRY TODAY, Volume 5, Issue 5, 2002.
- "*Manufacturing Works: The Vital Link between production and Prosperity*," interview for FORT WAYNE JOURNAL, Fort Wayne, Indiana, July 3, 2002.
- "*Manufacturing Works: The Vital Link between production and Prosperity*," interview for CUTTING TOOL TECHNOLOGIES MAGAZINE, July 3, 2002.
- "*Manufacturing Works: The Vital Link between production and Prosperity*," interview for MACOMB DAILY NEWSPAPER, Macomb, Michigan, July 3, 2002.
- "Manufacturing matters: How much?," material handling magazine, George Weimer , 1 July 2002, Volume 57, Issue 7; ISSN: 1529-4897.
- "Manufacturing's vitality touted in new publication," THE BUSINESS JOURNAL, Fresno, June 28, 2002.

"Minneapolis-Based Utility Firm Reunites with Spin-Off," SAINT PAUL PIONEER PRESS, David Hanners, 18 June 2002.  
 "California Crisis, Enron Debacle Dim Minneapolis-Based Energy Firm's Plans," SAINT PAUL PIONEER PRESS, David Hanners, 16 June 2002.  
 "Canterbury looks like good bet to win," MINNEAPOLIS STAR TRIBUNE, Neal St. Anthony; Staff Writer, 18 June 2002.  
 "In current economy, factory isn't a dirty word" Neal St. Anthony, MINNEAPOLIS STAR TRIBUNE, June 14, 2002.  
 "Currency dips are slow to hit home," MINNEAPOLIS STAR TRIBUNE, Mike Meyers; Staff Writer, 30 May 2002.  
 "Economy heating up in a hurry ; Minnesota jobs outlook brightening," MINNEAPOLIS STAR TRIBUNE, Mike Meyers; Staff Writer, 27 April 2002.  
 "Manufacturing Matters," ASIAN ENTERPRISE, June 2002.  
 "The Economics of Modern Manufacturing," Nancy Syverson, INDUSTRIAL MAINTENANCE AND PLANT OPERATIONS, Mar 01 '02  
 "Closing of Cream of Wheat Factory", MINNESOTA PUBLIC RADIO, February 14, 2002.  
 "Economic Outlook ; Manufacturing;" MINNEAPOLIS STAR TRIBUNE, Mike Meyers; Staff Writer, 21 January 2002.  
 "Cutbacks at 3M", MINNESOTA PUBLIC RADIO, January 18, 2002.  
 "Long-term viability of Twin Cities Ford plant", MINNESOTA PUBLIC RADIO, January 11, 2002.  
 "Characteristics of Twin Cities Ford plant", KSTP TV Channel 5 Television, January 10, 2002.  
 "Fair Play and Efficient Production", CHANNEL 16 , Oakdale, Minnesota, October 4, 2001.  
 "Management changes at Honeywell, International", MINNESOTA PUBLIC RADIO, July 3, 2001.  
 "European turndown of Honeywell/GE merger", TWIN CITIES PUBLIC TELEVISION - CHANNEL 2, July 3, 2001  
 "A marriage made in hell," Bill Catlin, MINNESOTA PUBLIC RADIO July 3, 2001  
 "Cutbacks at 3M", MINNESOTA PUBLIC RADIO, April 23, 2001  
 "Cutbacks at 3M, KARE11 Television, April 23, 2001  
 "Potential layoffs at Honeywell/General Electric", MINNESOTA PUBLIC RADIO, February 2, 2001  
 "Mergers and acquisitions", MARKETPLACE - NATIONAL PUBLIC RADIO, January 10, 2001  
 "Mergers and acquisitions", MINNESOTA PUBLIC RADIO, December 27, 2000  
 "New CEO at 3M", MINNESOTA PUBLIC RADIO, December 5, 2000  
 "Acquisition of Honeywell by General Electric", MINNESOTA PUBLIC RADIO, October 23, 2000  
 "Economic Summit - 2000", KTCA Channel 2, September 20, 2000  
 "Boat construction using VEC technology", KSTP TV Channel 5 Television, September 1, 2000  
 "BANKRUPTCY AND INSOLVENCY ACCOUNTING," Grant W. Newton, Wiley, 2000.  
 "Corporate headquarters and the local economy", KARE11 Television, June 15, 2000  
 "Underrating of 3M stock", MINNESOTA PUBLIC RADIO, January 26, 2000  
 "Impact of Control Data on Minnesota technology", ALL THINGS CONSIDERED, MINNESOTA PUBLIC RADIO, June 30, 1999  
 "Impact of the Honeywell buyout", CHANNEL 5 EVENING NEWS, June 9, 1999  
 "Comments on the potential failure of NordicTrack", CHANNEL 5 EVENING NEWS, October 27, 1998  
 "Priorities in Economic Development", NEWS NIGHT, KTCA Channel 2, May 23, 1995  
 "US Productivity Improvement," Interview by Gary Eichten, MINNESOTA PUBLIC RADIO, February 6, 1995  
 "The Importance of Minnesota's Manufacturing", Guest Editorial, MINNESOTA PUBLIC RADIO, March 30, 1994  
 "The Jobs Summit," BIZWEEK, KTCA Channel 2, March 18, 1994  
 "Worker Retraining Initiatives", Interview by Gary Eichten, MINNESOTA PUBLIC RADIO, March 14, 1994  
 "Interstate Job Pirating", CHANNEL 5 KSTP NEWS, January 11, 1994  
 "The Keewatin Taconite Plant Closing," BIZWEEK, KTCA Channel 2, October 22, 1993  
 "Minnesota's Industrial Economy," an interview with Dan Olson, MINNESOTA PUBLIC RADIO, October 18, 1993  
 "Preparations Necessary for the North American Free Trade Agreement," Interview by Gary Eichten, MINNESOTA PUBLIC RADIO, October 7, 1992  
 "North American Free Trade Agreement," Interview by Gary Eichten, MINNESOTA PUBLIC RADIO, August 12--13, 1992  
 "Competitive Position of U.S. Automobile Companies," Interview by Gary Eichten, MINNESOTA PUBLIC RADIO, January 7--8, 1992  
 Discussion of the book, *The Turnaround Experience*, JIM ROGERS SHOW, WCCO/CBS Radio, January 16, 1992  
 "Work Ethic and Education of U.S. Workers," Interview by Gary Eichten, MN PUBLIC RADIO, January 20, 1992  
 Description of the book, *The Turnaround Experience*, NORTHERN LIGHTS AND INSIGHTS, Metro Cable Network, February 26, 1992  
 "Status of Manufacturing in the United States," OUTLINE, Cable Channel 6, February 12, 1991  
 "Growth of Low--Paying Industrial Jobs, MINNESOTA PUBLIC RADIO, May 11, 1992  
 "Reasons for Profit Problems in Major U.S. Companies," CHANNEL 4 TV EVENING NEWS, December 14, 1992

## Testimonials before Governmental Bodies

- Testimony on the comparative quality of Minnesota education, Senate Committee on Education, MINNESOTA STATE SENATE, February 23, 2011.
- Invited testimony before Senate Committee on Business, MINNESOTA STATE SENATE, March 17, 2009
- Invited participation in Minnesota Governor's Summit on Governmental Reform, MINNESOTA GOVERNOR, January 5, 2009
- Invited participation in round table on Minnesota's manufacturing, MINNESOTA DEPARTMENT OF EMPLOYMENT AND ECONOMIC DEVELOPMENT, December 16, 2003.
- Manufacturers' Round Table on Medical Product Manufacturers, U. S. DEPARTMENT OF COMMERCE, July 14, 2003, Minneapolis.
- Requested input on manufacturing provided to the Science Committee, US HOUSE OF REPRESENTATIVES, May 15, 2003
- Invited testimony on the status of telecommunications technology in manufacturing, MINNESOTA STATE SENATE COMMITTEE ON COMMUNICATIONS AND TECHNOLOGY, September 26, 1995
- Invited testimony on the status of the recession in Minnesota, MINNESOTA STATE LEGISLATURE HOUSE SELECT COMMITTEE ON THE RECESSION, February 12, 1992
- Invited testimony on the impact of proposed product liability legislation on the industrial economy of Minnesota, MINNESOTA STATE LEGISLATURE HOUSE COMMITTEE ON THE JUDICIARY, January 15, 1992
- Invited testimony on dislocated worker programs, MINNESOTA STATE LEGISLATURE COMMITTEE ON LABOR--MANAGEMENT RELATIONS, October 30, 1991
- Invited testimony relating to the proposal for an Advanced Manufacturing Center in Minnesota, Minnesota State Legislature House Committee on Technology, March, 1989

## Seminars Conducted

- Welding Principles*, CCAP Mission, Eckwendeni, Malawi, Africa 2013
- Manufacturing and the Need for Change*, Power Team Division of SPX, Owatonna, Minnesota, March 10, 1999.
- Manufacturing Strategy and World Competition*, The Management Center, 1986 to present, two to three times annually
- Seminario Ejercicio Profesional* (Seminar on Professional Exercises) Universidad Catolica del Uruguay -- Montevideo, Uruguay (1995)
- Strategies for Defense Contractors, Minnesota Technologies, March 21, 1994
- Business Success in Difficult Times*, Institute of Managerial Accountants, March 10, 1992
- The Turnaround Experience -- Revitalizing Industrial Corporations*, CZECHOSLOVAK MANAGEMENT CENTER, Celakovice, Czechoslovakia, October 1992
- Manufacturing Strategy*, The Management Center, 1986 to present, twice annually
- Business Management*, Czechoslovak Management Center, October 1992
- Survival and Manufacturing Expertise*, The Management Center, 1991
- The Competitive Position of Industry*, IBM Corporation, Rochester, Minnesota 1992
- Financial Management*, Institute for Advanced Technology, Rome, Italy, 1971
- Simultaneous Engineering*, Advance Machine Company, Plymouth, Minnesota, August 1992
- Continuous Improvement*, Institute of Managerial Accountants, Minneapolis, March 10, 1993

## Other Activities

- Attended "Lessons from the Financial Crisis," Victoria Bridges, Carnegie-Mellon University Symposium, October 21, 2009
- Participated in the FORTUNE BOARDROOM FORUM, an invitation event for corporate directors sponsored by Fortune Magazine, in Chicago, June 22 and 23, 2006.
- Recipient -- University of St Thomas Distinguished Service Award, December 16, 2005, <http://www.stthomas.edu/bulletin/speeches.cfm>
- Participated in the DEFENSE ALLIANCE OF MINNESOTA CONFERENCE, October 17, 2005.
- Participated in the FORTUNE BOARDROOM FORUM, an invitation event for corporate directors sponsored by Fortune Magazine, in Chicago, June 27 and 28, 2005.
- Research Project Award from Minnesota Technology, Inc. STATUS OF MINNESOTA MANUFACTURING - 2003
- Recipient of Laboratory Grant, HAAS FOUNDATION/ KENNAMETAL/J & L, Oxnard, California, October 22-23, 2002.
- Invited guest, HAAS AUTOMATION PLANT TOUR, Oxnard, California, October 22-23, 2002.
- Recipient - Lifetime Membership Award, MINNESOTA PRECISION MANUFACTURING ASSOCIATION, October 16, 2002
- Recipient - Research Award from Bauervic Foundation in Michigan to Fred Zimmerman and Dave Beal to produce a book on the status of US manufacturing. Date of grant, April of 2000
- Member - Regional Advisory Board, Minnesota technology, Inc., 1997 through 2000
- Book review for publisher; MANAGING INTERNATIONAL BUSINESS by Rajib Sanyal, for Addison Wesley Longman, February 1999
- Book review for publisher; PRODUCTION AND OPERATIONS MANAGEMENT - Ninth Edition by Chase, Aguilano and Jacobs, for Irwin-McGraw-Hill, December 1998
- Recipient - Manufacturers Alliance Recognition Award for Contributions to the Manufacturing Community - 1998
- Member Society of Manufacturing Engineers Education Foundation Faculty Development Award Committee - 1998&1999



Recipient of Research Project Award from Minnesota Technology, Inc. to prepare a report on the status of Minnesota manufacturing - 1997  
Finalist -Educator of the Year - 1997, ROTARY CLUB OF ST. PAUL  
Recipient of Research Project Award from the McKnight Foundation to study industrial relocation - 1996  
Guest Panelist on Lifelong Learning, AMERICAN SOCIETY OF MECHANICAL ENGINEERS AND SOCIETY OF AUTOMOTIVE AND AEROSPACE ENGINEERS, October 1, 1996  
Finalist -Educator of the Year - 1996, ROTARY CLUB OF ST. PAUL  
Minnesota Competitiveness Task Force (Chartered by the State Legislature) -- Advisory Member 1995-1996  
Recipient of Research Project Award from the McKnight Foundation to develop new industrial performance measures - 1994  
Member -- Education Committee of the SOCIETY OF MANUFACTURING ENGINEERS  
AMERICAN SOCIETY OF ENGINEERING EDUCATION AWARD for CREATIVE INNOVATION<sup>3</sup>, June 21, 1993  
LOGIC OF LINKAGE CONFERENCE, Rochester, Minnesota, January 27--28, 1993, Resource Panel Member  
*Recipient of Research Project Award from Minnesota Technology, Inc. to develop alternative approaches to defense conversion*  
The Working Group for Economic Dislocation -- Member of the Board of Directors (1991--1993)  
*Diametrics Medical Corporation* -- Member of the Manufacturing Advisory Board (1992)  
*Data Sciences Corporation* -- Member of the Manufacturing Advisory Board (1996 to 2001)  
*Manufacturing Data Exchange* One of the founders in 1983

## Teaching Experience

### University of St. Thomas graduate level courses

MBMG 990 Capstone Course in Business Strategy and Policy, 1983 to 2003  
MMSE 899 Engineering Capstone Course, 1987 to present  
MB736 Management of the Firm in Trouble, 1988 to 1995  
MBMG 708 Management for Profit, 1996 to present  
MMSE 805 Manufacturing for Profit, 1996 to present  
MBOP650 Operations Strategy and Management 1996 to 2003  
INOP 700 International Operations Management, 1992 to 1998  
INID 900 International Strategic Management, 1993 to present  
MMSE 731 Automation Systems, 1986 to 1987  
Managerial Economics, 1980 to 1983

### University of St. Thomas undergraduate programs

ENGR 371 Manufacturing Processes, 1996 to present  
ENGR 460 Engineering Economics and Project Management, 2003 to present  
IDSC 475 Student Externship Program, 1997 to 2002  
MGMT 342 Operations Management, 1990  
MGMT 342 Management II, 1996-1997

### University of Pittsburgh Katz Graduate School of Business – Pittsburgh, Pennsylvania

BQOM 2023 Manufacturing and Service Strategy, Summer 2007  
BORG 2011 Organizational Development, Winter 2010

### University of Minnesota, Hubert H. Humphrey Institute of Public Affairs

Visiting Professor, Fall of 1995

### Universidad Catolica del Uruguay -- Montevideo, Uruguay

Organizational Strategy, 1998  
International Capstone Course, 1993  
Undergraduate Capstone Course, 1995

### Czechoslovak Management Center -- Celokovice, Czech Republic

Management Principles, 1992

### University of Minnesota Carlson School of Management

Business Strategy and Policy, 1994, 1996  
Managerial Principles and Practice, 1983  
Undergraduate Capstone Class in Strategy and Policy, 1987

### IBM, Xerox and other company internal programs:

Statistics, 1969  
Reliability Engineering, 1966  
Economics, 1962  
Financial Management, 1973

### St. Cloud State University – Herberger School of Management

MBA 605 -- Logistics and the Achievement of Profit, Winter 2009  
MGMT 497 Strategic Management, 2012

## Manufacturing Systems Engineering Theses Titles

Since the inception of the Manufacturing Systems Engineering Program, I have been privileged to serve as the principal advisor or as a member of the evaluating committee for many of the master's level dissertations required for graduation with the MMSE degree. Among the dissertations completed or nearly completed are following:

<b>Author</b>	<b>Thesis Title</b>
Alowonle, Rilwan	Gravimetric Blending of a Ratio Mixture of Polypropylene Pellets and Nordel Rubber
Anctil, Dennis Michael	Applying Computer Controls to Correct Rotor Imbalance on Computer Disk Drives
Ames, Mark D.	Waste in Industry in the Minneapolis/St. Paul Geographical Area
Barrett, Thomas H. (May, 2000)	PVC Coating Alternatives for the Playground Industry
Bachinski, Thomas J.	High Performance Teflon Laminated Media Without Chemical Binders
Blaskowski, Matthew L. (July 2004).	Web-based Machine Control as an Alternative to Traditional Human/Machine Interfaces
Brown, Larry S.	Development of Methods to Automate the Measurement of Reflective Sheeting Appearance Properties which are Modified During the Weathering Process
Chandler, Mark (November, 1999)	A Critical Dimension Scanning Electron Microscope Cost of Ownership Model for a Specialty Wafer Fab.
Cooper, Scott	The Application of Advanced Manufacturing Technologies in a Machine Shop
Cotner, Richard C.	Optimization Strategy for Dynamic, Stochastic Processes with Multiple Input Variables and Multiple Performance Objectives; with Application to Photographic Film Research and Development
Coyle, Todd (December, 1999)	Combined Cycle Power Plant as an Efficient, Economical and Reliable Power Source for the Generation of Peaking, Intermediate and Base Load Electricity.
Dirkx, Jeff	The Application of Ultrafine Carbide and the Future of nanophase Carbide in the Stamping Industry
Dockendorf, James L.	Effects of Deposition Parameters and Surface Conditions on the Adhesion of High Purity Thermally Evaporated Aluminum Thin Films on Silicate Glass Substrates
Erickson, Pamela E.	Enhanced Device Level Screening Outperforms Established Combined Temperature & Vibration Methods of Environmental Stress Screening in Select Military Flight Hardware
Fick, Michael J.	Implementation of Paperless Shop Floor Control in an Electronic Module Assembly Environment
Flolid, Stuart J.	Optimizing the Performance of a 2.15 GHz Oscillator using SQC Tools
Hanson, Scott (June,2000)	A Confidential Thesis on Stent Manufacturing
Hoelt, Timothy J.	Maximizing Total Cost Efficiency Through System Flexibility in Processing Drawn, Three Dimensional Sheet Metal Components: Replacing Traditional Press and Die Operations with Multi--Axis Laser Cutting
Hollen, Michael K.	Rethinking Equipment Layout for Efficient Operation
Johnson, Karl	Electrical Discharge Wire Cutting: An Inquiry into the Selection of Wire Electrodes for Rough Cutting Nickel Iron Cobalt Alloy for an Aerospace Application
Keller, Jeffrey J.	Improving the Odds by Corporate Level Funding of Interdivisional Electronic Database Formats and Protocols
Kinney, Jeanne E.	Use of Static Dissipative Floor as an Alternative to Wrist Straps in the Assembly of Military and High Reliability Commercial Circuit Boards
Koehler, Raymond	An investigation of the Influences of Wire Geometry in the Cross Wire Welding of Austenitic Stainless Steels
Krob, William A. (June 2003)	Managing Product Life Cycle in a Supply Chain Context A prescription for Improved New Product Development
Kvalheim, Jeffrey A. (July 2002)	The Development of a High Accuracy Chemical Bonding Module for Tetra-methyl Ammonium Hydroxide Based Developers in the Semiconductor Industry
Liberko, Anthony (June, 2005)	Hydrodynamic Changes of Mechanical Attributes in a Laminated Disk Drive Suspension

Liebl, Michael (May, 2000)	The Effects of Contact Resistance during Wafer Production Probing
Lemke, Scott	Machine Effectiveness Measurements and the Performance of Production Equipment
Lindsley, Christine A. (December, 1999)	Automating the Capital Evaluation Process for Intel Corporation
Lundsgaard, Mette A. (In progress)	Exploring Contract Manufacturing
Major, Ron	The Application of Thermal Analysis on a Disk Array
Meade, David J. (June, 2001)	The Importance of Manufacturing Execution Systems in the Implementation of Computer Integrated Manufacturing
Mohammed, Zachery (June, 2005)	Heat Transfer in Heaters in Integrated Circuit Manufacturing
Monson, Robert J.	A Technique for the Automated Analysis and Grinding of Curvilinear Supports
Murray, Neil	Aqueous Cleaning of High Reliability Commercial Electronic Assemblies as an Efficient Alternative to CFC Solvents
Nicholson, Kevin M.	An Analysis of Leadership Techniques for Improving Productivity within the Context of a Supervisor--led Natural Work Team Employee Involvement System
Nottestad, Daniel (August 2002)	Capacity Planning, Scheduling and Equipment Selection Using Discrete Event Manufacturing Simulation
Olson, Robert	Some Limitations of Existing Theory for Modeling Stresses in Wound Roles of Bi-directional Profiled Webs
Osborne, Paul (January, 1999)	An Experimental Program in Improving Welding Design in the Defense Industry
Peterson, Brad	An Assessment of the Impact of Downsizing on the Knowledge Base of Companies
Peterson, Michael J.	Improvement and Technology Assessment in Solder Paste Application for Surface Mount Devices Using the Application Method of Stenciling with Vapor Phase In--line Reflow Soldering
Phrommathed, Promma (June, 2003)	New Product Development Success -- Impacts of Innovation Strategy, Organizational Learning, and Market Conditions
Pietruszewski, John E.	An Inquiry into the Suitability of Abrasive Belt Machining of Composite Materials in an Aero-ballistic Application
Radke, Kathleen M.	Diagnostic Expert System Technologies Applied to Maintenance and Repair of Integrated Circuit Processing Equipment
Ramunno, Anthony J.	The Effect of Signal Transmission Cable Electrical Noise Propagation, in an Operating Nuclear Power Plant Environment, on Spurious Activation of Equipment by Radiation Monitoring Instrumentation
Rogers, Michael (July, 2004)	Rubber Shock Bumpers: A Research of Factors in Design and Manufacture that Affect Performance and Life of Nail Gun Bumpers
Roddy, Patrick J.	Optimization of the Core Bead Manufacturing Process for a Multi-particulate, Controlled Release, Oral Dosage Form Utilizing a Factorial Experimental Design
Rottier, Eric M. (Summer, 2000)	Steady State Manufacturing
Schuelke, David S.	Optimization of the Product Design to Production Process of Injection Molded Products by the Custom Molder through the Integration of Technology and Systems
Steele, Carolyn	Programmatic Supplementary Production in the Defense Industry
Steinacker, Gregory (April, 2001)	The Implementing of Roller coating of Liquid Photo-resist as an Alternative Process to Dip Coating for Manufacturing Photochemically Milled Precision Computer Components
Terpstra, David (May, 2003)	Lessons Learned from a Post Mortem of a New Product Development Project for a Small, Chemical, Electro-Mechanical, Programmable Device.
Thome, Michael E. (December, 1999)	The Benefits of Implementing an Integrated Pictorial-based Manufacturing Process and Assembly Instruction System in a Custom Manufacturing Environment
Tyner, Richard D	Employment of Machine Vision in the Reduction of Machine Tool Setup Time
Waibel, Teresa D.	Cost of Safety: Integrating Safety Principles from Design Concept through to a Production Ready Work Center will Reduce the Cost of Safety Features
Webb, Terence J.	The Applications and Limitations of Electrochemical Grinding in the Production of Cobalt Bonded Titanium Carbide Parts

Jeff Weiss (December 2005)	Designing and Manufacturing an Appropriate Technology Shredder in a Developing Country
Williams, Jimmy D.	Logic Analyzer Technology Applied to the Test and Measurement of Complex Electro--mechanical Systems
Winter, Robert (1999)	An Expert System Approach to the Design of Precision Molds
Wygonik, Mark (1998)	The impact of the Clean Air Act on the Manufacturing Strategies of Flexible Packaging Converting Firms Employing Flexographic Printing Processes.
Yilek, Todd (May, 2000)	The Feasibility of Automating Custom Hearing Aid Manufacturing at Starkey Laboratories
Zander, Matthew (June, 2004)	A Study of Total Cost of Ownership and Activity-Based Management in the Outsourcing Paradigm Shift