

RESUME OF

EDWARD A. SILVER, Sc.D., P.Eng.

CURRENT POSITIONS

Professor Emeritus
Haskayne School of Business
The University of Calgary
2500 University Drive N.W.
Calgary, Alberta, Canada T2N 1N4
Telephone: (403) 220-6996
Email: edward.silver@haskayne.ucalgary.ca

Independent Unincorporated Consultant
Dr. Edward A. Silver Consulting Services
220 Sierra Morena Green S.W.
Calgary, Alberta T3H 3E5

EDUCATION

Institution	Major	Degree	Year
Massachusetts Institute of Technology	Operations Research	Sc.D. (Science Doctorate)	1963
McGill University	Civil Engineering	B. Eng.	1959

CONSULTING EXPERIENCE**a. Full Time Experience with Consulting Organization (1963 – 1967)**

Operations Research Group
Arthur D. Little, Inc.
35 Acorn Park
Cambridge, Massachusetts
U.S.A. 02140

Professional member of the Operations Research Group - involved in several fundamental investigations of complex inventory control and production scheduling problems. Other work included the development and implementation of practical production and/or inventory systems in such diverse organizations as a large brewery, a major North American manufacturer and distributor, a wholesale drug firm, an international welfare organization, and a textile mill. Also participated in extensive research in the application of mathematical models in the areas of marketing and advertising.

b. Other Part Time Consulting Activities

Private consultant to numerous industrial and government organizations in the general areas of Operations Management and the use of quantitative modeling to aid in managerial decision making. Clients have included Accenture, Alberta and Southern Gas Co. Ltd., Alberta Justice, American Optical, Arthur D. Little Inc., The Athlete's Foot, Bell Canada, Bombardier Regional Aircraft Division, Calgary Laboratory Services, Canada Centre for Remote Sensing, Canadian General Tower, DCF Systems, Department of National Defence, Defence Research Board, EnCana, Fletcher Challenge (New Zealand), National Energy Board, NOVA (An Alberta Corporation), PanCanadian Petroleum Ltd., Peat Marwick Livingston & Co., Petro-Canada, Standard Oil of Indiana, Tron Systems Group, Uni-royal Ltd., and the U.S. Army Inventory Research Office. In this work, particular emphasis has been placed on seeking reasonable solutions to complex practical problems in the management of operations. Areas of application include inventory management, production planning, process improvement/innovation, purchasing, supply management, logistics, maintenance management, workforce scheduling, etc. Most of the studies have included audits of existing or proposed systems, as well as supporting technical development work. Recent emphasis has been on the application of a continuous improvement philosophy.

c. Executive Development Short Courses and Seminars

Have instructed in a number of courses and seminars, including:

- i.) "Business Process Improvement", three-hour seminar, CGA Alberta Conference, October 2004.
- ii.) "Business Process Improvement", two-hour workshop offered to the Finance Leadership Team and Human Resources Representatives, Petro-Canada, January, 2004.
- iii.) "Business Process Improvement", three-hour course, Public Practitioners and Controllers Conference, CGA Alberta, June 2002.
- iv.) "Business Process Improvement", three-hour course, Professional Development Program, APEGGA Annual General Conference, April 2001, April 2002.
- v.) "Inventory Management/Control for Improved Business Performance", three-hour workshop offered to General Fasteners Ltd., March 2002.
- vi.) "Strategies for Improving Supply Chain Performance", two-day course, Business School Executive Programmes, University of Auckland, April 2000.
- vii.) "Business Process Improvement", two-day course, Business School Executive Programmes, University of Auckland, March 2000.
- viii.) "Supply Chain Management Fundamentals", two-day course offered to Canadian Freightways Ltd. through the Van Horne Institute, August 1999.
- ix.) "Process Improvement and Creative Problem Solving", part of the Agricore Management Leadership Program, July 1999.
- x.) "Inventory Management/Control for Improved Business Performance", seminar (sponsored by Merck Frosst Canada Inc.) presented to the Caremart Group of Independent Pharmacists, February 1997.
- xi.) Banff School of Advanced Management, Fall 1983, Spring 1984, Spring 1995.

- xii.) The Executive Development Program of the Faculty of Management, The University of Calgary, April to June in each of 1983-1994.
- xiii.) "Preventive Maintenance Management," part of the PanCanadian Petroleum Executive Program, November 1993.
- xiv.) "Inventory Management" seminar presented to the Annual Conference of the Certified General Accountants Association of Alberta, October 1993.
- xv.) "Some Key Issues in Project Management," part of an in-house workshop for Canadian Marine Drilling Limited, November 1990, February 1991.
- xvi.) "Quantitative Methods to Aid Managerial Decision Making," an in-house, three-day seminar for Petro-Canada Resources, December 1989.
- xvii.) "Decision Making Under Risk," a workshop presented to the Owner / Managers Alumni of the Center for New Venture Development, University of Calgary, April 1989.
- xviii.) "Risk and Decision Making," an in-house seminar for the Oil and Gas Division, BP Canada Limited, November 1987.
- xix.) "Inventory Management and Control," a two-day workshop for Novacor Chemicals Ltd., November 1986.
- xx.) A special executive development course for Bata Ltd., June 1976, September 1978, June 1979, May 1980, June 1981, and June 1982.
- xxi.) A 9-hour seminar on Inventory Planning developed for the London and District Chapter of CAPIC to help prepare members for the Inventory Management Module of the APICS Certification Examination, May 1980.
- xxii.) "Operations Research and the Management Sciences," College of Engineering, University of Michigan, August 1978, 1979 and 1980.
- xxiii.) A special two-day seminar on Inventory Management for employees of Canadian National Railways, December 1978.

- xxiv.) "Effective Inventory Management," Canadian School of Management, September 1978.
- xxv.) "Effective Inventory Control – the Modern Way," Centre for Continuing Management Education, University of Waterloo, June 1973, December 1973 and May 1974.

PREVIOUS ACADEMIC POSITIONS

- a. University of Calgary, Calgary, Alberta (1981-2002). Professor of Operations Management and holder of the Carma Chair (1991-2002).
- b. Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland (2001). Visiting Professor during sabbatical leave from The University of Calgary.
- c. University of Auckland, Auckland, New Zealand (2000). Auckland Foundation Visitor and Visiting Professor, Department of Management Science & Information Systems.
- d. University of Canterbury, Christchurch, New Zealand (1998). Visiting Erskine Fellow, Department of Management.
- e. Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland (1992-93). Visiting Professor during sabbatical leave from The University of Calgary.
- f. Institute for Advanced Studies, Vienna, Austria (1990) Visiting International Professor offering a course entitled, "Production/Operations Management - Applications of Quantitative Modelling."
- g. Ecole Polytechnique Fédérale de Lausanne, Switzerland (1990) Visiting Research Professor, Département de Mathématiques.
- h. Xi'an Jiaotong University, Xi'an, China (1987) Visiting Professor teaching a graduate course as part of a program sponsored by the Canadian International Development Agency.
- i. Stanford University (1986) Visiting Professor during the Winter Quarter as part of a sabbatical leave from The University of Calgary.
- j. University of Waterloo (1969-1981) Professor and Associate Chairman, Department of Management Sciences, Faculty of Engineering.

- k. Ecole Polytechnique Fédérale de Lausanne, Switzerland (1976-77) Visiting Professor during sabbatical leave from the University of Waterloo.
- l. Boston University (1967-69) Associate Professor, College of Business Administration.
- m. Massachusetts Institute of Technology (1963-65) Special Part-Time Industry Lecturer, Department of Electrical Engineering.

LANGUAGE SKILLS

Fluent in English and French

PUBLICATIONS

Co-author (with D. Pyke and R. Peterson) of the book, Inventory Management and Production Planning and Scheduling, John Wiley and Sons, New York, First Edition in 1979, Second Edition in 1985, Third Edition in 1998.

Co-editor (with S. Axsäter and Ch. Schneeweiss) of Multi-Stage Production Planning and Inventory Control, Lecture Notes in Economics and Mathematical Systems 266, Springer-Verlag, Berlin, 1986.

Author of close to 170 refereed articles in journals such as Engineering Costs and Production Economics, IIE Transactions, INFOR, INTERFACES, International Journal of Production Research, International Journal of Production Economics, Journal of the Operational Research Society, Journal of Operations Management, Management Science, Naval Research Logistics, OMEGA, Operations Research, Production and Inventory Management.

Author of two chapters in books and four case studies, the latest dealing with maintenance management in the oil and gas industry.

PAPERS, TALKS, SEMINARS

Have presented over 170 papers, talks and seminars at:

- i.) National and international meetings of professional organizations such as the American Production and Inventory Control Society, the Canadian Operational Research Society, the Operations Research Society of America and the Institute of Management Sciences.

- ii.) Well-known North American universities including M.I.T., University of Pennsylvania (the Wharton School), University of Montreal and Queen's University, as well as at several European educational institutions.

GRANTING AGENCY ACTIVITIES

Member (1978-1980) and Chairman (1980-81) of the Industrial Engineering Grants Selection Committee of the Natural Sciences and Engineering Research Council (NSERC) of Canada. This committee is responsible for the allocation of all grant support provided by the Council for research in the Industrial Engineering area in universities in Canada. Appointed Member (1984-86) of the NSERC Advisory Committee on Engineering (this committee dealt with policy issues for all of the academic research funding in Engineering in Canada).

PROFESSIONAL AFFILIATIONS

1. Life member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta (Examiner for Certification Examinations in Industrial Engineering).
2. Canadian Operational Research Society (1969-1971), Vice President of Kitchener-Waterloo Section; 1971-72 President of Section; 1969-1972, 1975-76, 1979-1982 National Council Member; 1971-72 Member of Special National Policy Committee; 1980-81 President of the Society; 1979-1983 Representative to the International Federation of Operational Research Societies; 1991-92 Co-Chairman of the Award of Merit Committee).
3. The Institute of Industrial Engineering (Senior Fellow)
4. The Institute for Operations Research and Management Sciences (Fellow of the Society and one of three inaugural members of the Manufacturing and Services Operations Management Society).
5. International Society for Inventory Research (Fellow; 1986-1990 Member of the Executive Committee and Section Chairman; 1990-92 Vice-President; 1992-94 President-Elect; 1994-96 President).

PROFESSIONAL RECOGNITION

Elected in 2010 as a Fellow of the Production & Operations Management Society. The citation included "...for years of dedicated leadership and valuable contributions to the profession of production and operations management."

Selected in 2007 as the recipient of the Harold Larnder Memorial Prize by the Canadian Operational Research Society. The prize honours individuals for distinguished international achievement in Operational Research.

Became an Emeritus member of the Canadian Operational Research Society, designation bestowed upon those retired CORS members who have received both the CORS Service Award and the CORS Award of Merit.

Selected in 2003 as a Fellow of the Institute for Operations Research and the Management Sciences.

Awarded a Visiting Research Fellowship by the Japan Society for the Promotion of Science for research activities at the Tokyo Institute of Technology and Kyoto University (October, 2002).

Selected in 2002 as the winner of the President's Circle Award for Research and Creative Activity Excellence, University of Calgary.

Selected in 2001 as the recipient of the Dean's Award for Outstanding Leadership in Teaching & Learning in the Faculty of Management, University of Calgary.

Awarded the Gold Prize for the Best Paper at the First Cyber Conference, Korean Institute of Industrial Engineers, November 2000, for a paper co-authored with I. Moon and S. Choi.

Elected Fellow of the International Society for Inventory Research in 2000. The citation included "...for the great contribution you have made to the development of our research field and also of ISIR".

Appointed as a 2000 University of Auckland Foundation Visitor in the Department of Management Science & Information Systems, University of Auckland, New Zealand (February-May 2000).

Selected in 2000 as one of the three inaugural Fellows of the Manufacturing and Services Operations Management Society. The citation included "In recognition of his outstanding research and leadership in the field of Operations Management".

Selected in 2000 as the recipient of the Dean's Award for Outstanding Research Leadership in the Faculty of Management, University of Calgary.

Selected in 1999 as the recipient of the Dean's Award for Outstanding Research Achievement (during the previous 5-year period) in the Faculty of Management, University of Calgary.

Selected in 1999 as the recipient of the Dean's Award for Research Excellence (performance in previous year) in the Faculty of Management, University of Calgary.

Selected in 1998 to receive the Service Award of the International Society for Inventory Research. The citation included "This award is to recognize the outstanding service to the International Society for Inventory Research and its members provided by Edward A. Silver."

Selected as the 1998 Lecturer of the Operational Research Society of New Zealand. This involved presenting a seminar to the sections of the Society in each of Auckland, Christchurch, and Wellington.

Awarded a Visiting Erskine Fellowship in the Department of Management, University of Canterbury, Christchurch, New Zealand (March-April 1998).

Selected in 1997 as the co-recipient (with T.R. Rohleder) of the Management Advisory Committee's Award for Managerial Relevance, Faculty of Management, University of Calgary, as a result of the publication of the article "A Tutorial on Business Process Improvement".

Professionally recognized by the holding of the Edward A. Silver Mini-Conference in Banff, Alberta in August 1997.

Selected as a recipient of the Fellow Award of the Institute of Industrial Engineers in 1995.

Selected in 1994 as the recipient of the Dean's Award for Outstanding Research Achievement (during the previous 5-year period) in the Faculty of Management, University of Calgary.

Appointed in 1991 (and renewed in 1996 for a second 5-year term) to the Carma Chair in Operations Management at The University of Calgary.

Selected as the recipient of the 1990 Award of Merit of the Canadian Operational Research Society. The citation included, "Co-author of the book, Decision Systems for Inventory Management and Production Planning, which had a major impact through its organization and clarification of the state-of-the-art in the field. An outstanding teacher of the theory and applications of Operational Research at The University of Waterloo and The University of Calgary. Made major research contributions in the area of Inventory and Production, in particular through the development of reasonable and implementable solutions to difficult practical problems (e.g., the Silver-Meal heuristic), thus contributing to improved practice in many organizations."

Selected as the recipient of the 1986 Operations Research Division Award from the Institute of Industrial Engineers. The citation included "This award recognizes your long history of research contributions to the operations research and industrial engineering professions

Received a Service Award of the Canadian Operational Research Society in 1986. The citation included "... to recognize individuals who have given distinguished service to the Canadian Operational Research Society over a period of several years."

Awarded a Sabbatical Leave Fellowship by the Social Sciences and Humanities Research Council of Canada (1985-86) for a research project entitled, "Procurement and Logistics Decision Making in Large Scale Projects in the Oil and Gas Industry."

Awarded Killam Resident Fellowship at The University of Calgary (September-December 1983) to complete the second edition of the text, Decision Systems for Inventory Management and Production Planning.

Selected for inclusion in:

1. 2000 Outstanding Scholars of the 21st Century
2. American Men and Women of Science
3. Canadian Who's Who
4. Dictionary of International Biography
5. Five Hundred Leaders of Influence
6. International Directory of Business and Management Scholars and Research
7. International Directory of Distinguished Leadership
8. International Who's Who in Education
9. International Who's Who in Engineering
10. Marquis Who's Who Biographies of Living Notables
11. Who's Who in Alberta
12. Who's Who in Canadian Business
13. Who's Who in Canadian Engineering
14. Who's Who in Engineering
15. Who's Who in the West