December 2014

DEAN CLARENCE MOUNTAIN

Business Address: DeGroote School of Business

McMaster University Hamilton, Ontario

L8S 4M4

Telephone: 905-525-9140 Ext. 23988 E-mail: mountain@mcmaster.ca

Educational Background:

1979 Ph.D. in Economics (University of Western Ontario, London, Canada)

1976 M.A. in Economics (University of Western Ontario, London, Canada)

1975 B.A. in Economics and Mathematics (McMaster University, Hamilton, Canada)

Current Status at McMaster:

Professor of Finance and Business Economics (1991-present)

Associate Member - Department of Economics (1987-present)

Research Associate of the Program for Quantitative Studies in Economics and Population (1987-present)

Member of McMaster Institute for Energy Studies (1987-present)

Editor-in-Chief, Energy Studies Review (2006 – present)

Employment History:

McMaster University: Hamilton

Director of McMaster Institute for Energy Studies (1998-2005)

Chair of Finance and Business Economics Area (1997-2002)

Associate Professor of Finance and Business Economics (1987-1991)

Employment History (continued):

Ontario Hydro: Toronto

Superintendent - Load Research, Rates Department 1982-1987

Acting Supervisor - Rate Research, Rates Department February 1982-September 1982

Load Analyst - Rates Department 1981-1982

Economic Analyst, Load Forecasts Department 1980-1981

York University: Toronto

Course Director, Department of Economics, Atkinson College 1979-1986

Ministry of Energy: Toronto

Policy Analyst, Strategic Planning and Analysis Group 1979-1980

University of Western Ontario: London

Instructor, Department of Economics 1977-1978

Teaching Assistant, Department of Economics 1976-1977

Ontario Economic Council: Toronto

Research Assistant to the President 1977

Canadian Economic Services Ltd.: Hamilton and Ottawa

Research Consultant 1975

Employment History (continued):

Steel Company of Canada Ltd.: Hamilton

Production Planner 1971-1974

Scholarly and Professional Activities:

Referee for <u>Canadian Journal of Economics</u>, <u>American Journal of Agricultural Economics</u>, Review of Economics and Statistics, <u>Journal of Regional Science</u>, <u>European Economic Review</u>, <u>Journal of Economics</u>, <u>Journal of Public Economics</u>, <u>Energy Studies Review</u>, <u>Review of Economic Studies</u>, <u>Journal of Productivity Analysis</u>, <u>The Energy Journal</u>, <u>International Economic Review</u>, <u>Resource and Energy Economics</u>, <u>The Rand Journal of Economics</u>, <u>Canadian Public Policy</u>, <u>Econometrica</u>, <u>Journal of Business Economics and Statistics</u>, <u>Bulletin of Economic Research</u>, <u>American Economic Review</u>, <u>Southern Economic Journal</u>, <u>Canadian Journal on Aging</u>, <u>Journal of Economic Theory</u>.

Reviewer for numerous SSHRC and FQRSC grant proposals

Associated Member of Faculty of Graduate Studies, University of Guelph, 1985-1987

External Research Associate for Quantitative Studies in Economics and Population, McMaster University, 1985-1987

Member of International Association of Energy Economists

Areas of Interest:

Energy analysis, measurement of economies of scale and productivity in financial institutions, time-of-use rate analysis, empirical demand systems and aggregation, applied microeconometrics and financial econometrics.

Recent Newspaper, and Magazine Articles and Radio Pieces Regarding Research of Dean C. Mountain:

CHML radio, Canada, December 2014
Hamilton Spectator, Canada, December 2014
Washington Post, U.S., January 2008
AMC Outdoors Magazine, U.S., August 2007
Energy Design Update, U.S., August 2007
Globe and Mail, Canada, October 2006
Energywatch, U.K., April 2006

Honours:

es

Courses Taught:

Department of Economics, Atkinson College, York University (1979-1986)

Principles of Economics (AK2410 and AK2420)

Micro-Economic Theory (AK373 and AK374)

Introductory Economic Statistics (AK347 and AK348)

Intermediate Micro-Economic Theory (AK339)

Managerial Economics (AK3410)

Intermediate Macro-Economics (AK3400)

Advanced Micro-Economic Theory (ECON4010)

Faculty of Management, University of Science and Technology, Beijing (1988)

Economics

Faculty of Business, McMaster University (1987-present)

Financial Instruments and Institutions (2FA3)

Financial Theory (4FG3)

Theory of Income and Employment (E620)

Economics for Management (E602, E601)

Analysis of Business Conditions/Business & Economic Forecasting (E714)

Courses Taught (continued):

Financial Economics and Quantitative Methods (F710) Preparatory Mathematics For MBA Students (W606) Empirical Methods in Finance (F773)

Committee and Administrative Assignments at McMaster:

Dean's Advisory Committee on Computing (1987-1990)

New Building Committee (1988-1991)

Representative to Faculty of Social Sciences (1989-1992; 2006-2007)

Faculty Research Committee (1988-1993; 1995; 2011-2012)

Arts Research Board (1990-1993; 1995)

Engineering and Management Operating Committee (1990-1993, 2004-2005)

McMaster Institute for Energy Studies Steering Committee (1990-present)

Faculty Tenure and Promotion Committee (1992-1993; 1996-1999, 2005-2008)

Canadian Commercial End-Use Energy Data and Analysis Centre Committee (1994 - present)

Undergraduate Curriculum and Calendar Committee (Faculty) (1995 - 1999)

Graduate Curriculum and Calendar Committee (Faculty) (1995 – 1999, 2008-2009)

Undergraduate Council (University) (1995 - 1998)

Undergraduate Council Curriculum Committee (University) (1995 - 1998)

Faculty Council (1997 - 2002)

Ad Hoc Academic Review Committee of Accounting Area (2006)

Ad Hoc Committee on Faculty Career Progress (2007-2008)

Graduate Admission and Study Committee (2008 - 2009)

Hearings Committee (2007 – 2009)

Representative to Faculty of Science (2011 – 2014)

Member of undergraduate sustainability minor task force (2013-present)

Member of Tenure and Promotion Appeal Tribunal (2014)

Member of Operations Management Area tenure and promotions committee (2013-2014)

Seminars in Executive Skills - SEMINEX,

Faculty of Business, McMaster University:

Load Research: A Symposium for Utilities and Telecommunications (1989)

Conference Chair

Load Research Symposium, Faculty of Business and McMaster Institute for Energy Studies (1992)

Demand Response Workshop, McMaster Institute for Energy Studies (2004)

Conservation and Demand Management Workshop, McMaster Institute for Energy Studies (2005)

Sustainable Development in Communities Workshop, DeGroote School of Business (2007)

Conference Chair (continued)

Smart Metering and Advanced Metering Infrastructure Conference, DeGroote School of Business (2009)

Field Studies Results from the Residential Zoning and Zonesaver Demand Response Pilot Trials (2011)

Conservation and Demand Management in a Sustainable Future Conference, DeGroote School of Business (2012)

Supervisorships:

Master of Science, Kathleen Ho, Department of Consumer Studies, University of Guelph, 1987.

Ph.D., Dading Li, Department of Economics, McMaster University, 1991.

Ph.D., Shan Wang, Faculty of Business, McMaster University, 2004

Master of Resource Management, Jonn Axsen, School of Resource and Environment Management, Simon Fraser University, 2006

Ph.D., Wen Zhou, Tongji University, 2013

Research Funding:

1988-1989: Energy, Mines and Resources Canada

"The Interdependence of Provincial and Foreign Electricity Markets"

Amount: \$10,000

1989-1990: Energy, Mines and Resources Canada

"The Influence of Economies of Scale and Industrial Structure on

Electricity Delivery Costs"

Amount: \$11,000

1991-1994: Social Sciences and Humanities Research Council

"Dynamic Adjustment of Energy and Time-of-Day Electricity Impacts"

Amount: \$29,999

1991-1994: Social Sciences and Humanities Research Council

"Program of Research on Economic-Demographic Interactions" with

Frank T. Denton and Byron G. Spencer

Amount: \$64,000

1992-1996: Social Sciences and Humanities Research Council

"Analysis of the Canadian Banking Industry" with M.W. Luke Chan

Amount: \$32,000

Research Funding (continued):

1994-1995: McMaster Institute for Energy Studies

"Energy Data Analysis and Computer Modelling" with Frank T. Denton and Byron G. Spencer

Amount: \$64,000

1994-1999: Social Sciences and Humanities Research Council

"The Dynamics of Real-Time Pricing and Inflexible Energy Substitution"

Amount: \$40,000

1995-1998: National Health Research and Development Program

"The Independence and Financial Security of the Elderly Population: Expenditure Patterns and Inflation Effects"

with Frank T. Denton and Byron G. Spencer - a member of team

comprised of 18 co-investigators

Amount \$519,000

1996-1997: Natural Resources Canada

"Commercial Energy End-Use Analysis in the United States" with Frank T.

Denton and Byron G. Spencer

Amount: \$50,000

1997-1998 Natural Resources Canada

"Commercial Energy End-Use Analysis" with Frank T. Denton and Byron G.

Spencer

Amount: \$50,000

1998-1999 Natural Resources Canada

"Energy Prices Integration" with Frank T. Denton and Byron G. Spencer

Amount: \$25,000

1999-2000 Environment Canada

"The Impact of Weather on Commercial Demand for Energy"

with Frank T. Denton and Byron G. Spencer

Amount: \$30,000

1999-2005 Social Sciences and Humanities Research Council

"Measuring Energy Conservation at the Establishments and End-Use Level"

Amount: \$38,100

Research Funding (continued):

1999-2003 Social Sciences and Humanities Research Council, Major Collaborative Research Initiative

"Social and Economic Dimensions of an Aging Population" with Frank T. Denton and Byron G. Spencer - a member of team comprised of 28 co-investigators

Amount: \$3,200,000

2001-2002 Environment Canada

"The Impact of Weather on Commercial Demand for Energy"

with Frank T. Denton and Byron G. Spencer

Amount: \$42,000

2003-2006 Arts Research Board

"The Preparedness of Ontario Secondary Graduates for University Business

Education" with Trevor W. Chamberlain and Clarence C.Y. Kwan

Amount: \$4,198

2004-2011 Social Sciences and Humanities Research Council, Major Collaborative

Research Initiative

"Canada in the 21st Century: Moving Towards an Older Society" with Frank T. Denton and Byron G. Spencer - a member of team comprised of 48 co-investigators

Amount: \$2,498,047

2006-2012 Sustainable Development Technology Canada

"Electricity Conservation and Demand Management"

with Ken Deal, Blue Line Innovations, Tantalus Systems Corp., Chatham-Kent

Hvdro

Amount: \$9,401,751

2007-2010 Natural Resources Canada

"Advanced Residential Load Reduction Pilot Project"

Amount: \$325,051

2009-2013 Social Sciences and Humanities Research Council

"Energy Conservation, Customer Behaviour and Advanced Metering

Infrastructure" Amount: \$39.523

2009-2011 Natural Resources Canada

"Utility Control of Zone Comfort Systems to Deliver Peak Load Shifting,

Enhanced Homeowner Comfort and Energy Savings"

Amount: \$424,931

Research Funding (continued):

2010-2011 Ontario Power Authority

"Extended Utility Controlled Zone-Saver Field Trial"

Amount: \$66,397

2013-2015 Forward with Integrity Grant

"Business Sustainability Research Group" – member of team comprised of 6 co-

investigators Amount: \$7,500

2013-2016 Ontario Power Authority, Hydro One, Newmarket Hydro and Terra Power

Systems

"The Electric Heating Benefits of Thermal Energy Storage"

Amount: \$615,943

2014-2017 Ontario Ministry of Energy, Hydro One, Blue Line Innovations

"Integrating Dynamic Pricing & Customer Feedback on Electricity Usage to Stimulate Residential Conservation & Demand Response", with Ken Deal,

Frank T. Denton and Byron G. Spencer

Amount: \$2,872,931

Lifetime Publications:

Peer Reviewed Journal Articles:

Dean C. Mountain, "The Spatial Distribution of Electricity Demand: Its Impact upon Input Usage," Land Economics (February, 1981): 48-62.

Dean C. Mountain, "Imported Electricity: A Substitute for Inputs Used by the Regional Electricity Industry," <u>Journal of Regional Science</u> (Vol. 22, No. 1, 1982): 83-96.

Dean C. Mountain, "The Interdependence of Electricity Export Markets: An Econometric Examination of Quebec in a Monopolistic Setting," <u>Resources and Energy</u> (December, 1982): 329-349.

M.W. Luke Chan and Dean C. Mountain, "Economies of Scale and the Tornqvist Measure of Productivity Growth," <u>Review of Economics and Statistics</u> (November, 1983): 663-667.

M.W. Luke Chan and Dean C. Mountain, "A Regional Analysis of Canadian Agricultural Productivity Change: With Some Special References to Energy Prices," <u>Canadian Journal of Agricultural Economics</u> (November, 1983): 319-330.

Cheng Hsiao and Dean C. Mountain, "Estimating the Short-Run Income Elasticity of Demand for Electricity Using Cross-Sectional Categorized Data," <u>Journal of the American Statistical Association</u> (June, 1985): 259-265.

- Dean C. Mountain, "The Contribution of Changing Energy and Import Prices to Changing Average Labor Productivity: A Profit Formulation for Canada," <u>Quarterly Journal of Economics</u> (August, 1985): 651-675.
- Dean C. Mountain, "Regional Productivity and Energy Price Differentials," <u>Regional Science and Urban Economics</u> (Vol. 15, No. 3, 1985): 477-489.
- Dean C. Mountain and Cheng Hsiao, "Peak and Off-Peak Industrial Demand for Electricity: The Hopkinson Rate in Ontario, Canada," <u>The Energy Journal</u> (January, 1986), 149-168.
- Dean C. Mountain, "Impact of Higher Energy Prices on Wage Rates, Return to Capital, Energy Intensity and Productivity: A Regional Profit Specification," <u>Energy Economics</u> (July, 1986): 171-176.
- Dean C. Mountain, "Economies of Scale versus Technological Change: An Aggregate Production Function for Switzerland," Review of Economics and Statistics (November, 1986): 707-711.
- M.W. Luke Chan and Dean C. Mountain, "Measuring Returns to Scale and Technological Change in Co-operative Banks: A Provincial Analysis of Canadian Credit Unions and Caisses Populaires," Empirical Economics (Vol. II, 1986): 207-222.
- M.W. Luke Chan and Dean C. Mountain, "Technological Change and Economies of Scale in Canadian Financial Institutions: A Selection from Competing Hypotheses," <u>Journal of Economics and Business</u> (Vol. 39, 1987): 57-66.
- M.W. Luke Chan and Dean C. Mountain, "Measuring Contributing Factors to Inter-regional Agricultural Labour Productivity: A Joint Profit Formulation," <u>Journal of Regional Science</u> (Vol. 27, 1987): 269-281.
- Varouj A. Aivazian, Jeffrey L. Callen, M.W. Luke Chan and Dean C. Mountain, "Economies of Scale versus Technological Change in the Natural Gas Transmission Industry," <u>Review of Economics and Statistics</u> (August, 1987): 556-561.
- Cheng Hsiao, M.W. Luke Chan, Dean C. Mountain and Kai Y. Tsui, "An Integrated Monthly and Hourly Regional Electricity Model for Ontario, Canada," <u>Resources and Energy</u> (October, 1987): 275-299.
- Frank T. Denton, Kevan L. Jefferies, Dean C. Mountain, A Leslie Robb and Byron G. Spencer, "The Response of an Industrial Firm to Alternative Electricity Rate Structures: An Optimization Model for Simulation Applications," Resources and Energy (December, 1987): 327-346.
- M.W. Luke Chan and Dean C. Mountain, "The Interactive and Causal Relationships Involving Precious Metal Price Movements: An Analysis of the Gold and Silver Markets," <u>Journal of Business</u> and Economic Statistics (January, 1988): 69-77.

Dean C. Mountain, "The Rotterdam Model: An Approximation in Variable Space," <u>Econometrica</u> (March, 1988): 477-484.

Dean C. Mountain, "A Quadratic Quasi Cobb-Douglas Extension of the Multi-Input CES Formulation," <u>European Economic Review</u> (Vol. 33, 1989): 143-158.

Cheng Hsiao and Dean C. Mountain, "Some Remarks on the Identification and Estimation of Translog Models," <u>Advances in Statistical Analysis and Statistical Computing</u> (Vol. 2, 1989): 123-157.

Dean C. Mountain and Cheng Hsiao, "A Combined Structural and Flexible Functional Approach for Modeling Energy Substitution," <u>Journal of the American Statistical Association</u> (March, 1989): 76-87.

M.W. Luke Chan, Itzhak Krinsky and Dean C. Mountain, "Analysis of Productivity at the Firm Level: An Application to Life Insurers: Comment and Extension," <u>Journal of Risk and Insurance</u> (June, 1989): 336-340.

Dean C. Mountain, Bill P. Stipdonk and Cathy J. Warren, "Technological Innovation and a Changing Energy Mix - The Case of Ontario Manufacturing," <u>The Energy Journal</u> (October, 1989): 139-158.

Cheng Hsiao, Dean C. Mountain, M.W. Luke Chan, and Kai Y. Tsui, "Modeling Ontario Regional Electricity Demand using a Mixed Fixed and Random Coefficients Approach," <u>Regional Science and Urban Economics</u> (19, 1989): 565-587.

M.W. Luke Chan and Dean C. Mountain, "An Index Number Framework for Explaining Changes in Energy Efficiency," Applied Economics (June, 1990): 785-794.

Dean C. Mountain, "Simulating Time-of-Use Impacts on Industrial Load Factors," <u>Southern Economic Journal</u> (October, 1990): 497-511.

Dean C. Mountain and Evelyn L. Lawson, "A Disaggregated Non-Homothetic Modeling of Responsiveness to Residential Time-of-Use Electricity Rates," <u>International Economic Review</u> (February, 1992): 181-207.

Dean C. Mountain, "An Overall Assessment of the Responsiveness of Households to Time-of-Use Electricity Rates: The Ontario Experiment," <u>Energy Studies Review</u> (Volume 5, 1993): 190-203.

Cheng Hsiao and Dean C. Mountain, "A Framework for Regional Modeling and Impact Analysis - An Analysis of the Demand for Electricity by Large Municipalities in Ontario, Canada," <u>Journal of Regional Science</u> (August, 1994): 361-385.

Dean C. Mountain and Evelyn L. Lawson, "Some Initial Evidence of Canadian Responsiveness to Time-of-Use Electricity Rates: Detailed Daily and Monthly Analysis," <u>Resource and Energy Economics</u> (17, 1995): 189-212.

- Cheng Hsiao, Dean C. Mountain and Kathleen Ho Illman, "A Bayesian Integration of End-Use Metering and Conditional Demand Analysis," <u>Journal of Business and Economic Statistics</u> (July, 1995): 315-326.
- Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "The Response of Aggregate Production to Fertility-Induced Changes in Population Age Distribution," <u>Southern Economic Journal</u> (January, 1996): 606-619.
- Frank T. Denton, Christine H. Feaver, Dean C. Mountain, A. Leslie Robb, and Byron G. Spencer, "Industry-Region Load Profiles: Econometric Estimation Based on Marginal Totals," <u>The Annals of Regional Science</u> (Vol. 30, 1996): 223-246.
- John C. Ham, Dean C. Mountain and M.W. Luke Chan, "Time-of-Use Prices and Electricity Demand: Allowing for Selection Bias in Experimental Data," <u>The Rand Journal of Economics</u> (Vol. 28, 1997): S113-S141.
- Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "Age, Trend, and Cohort Effects in a Macro Model of Canadian Expenditure Patterns." <u>Journal of Business and Economic Statistics</u>, (October, 1999): 430-443.
- Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "Energy Use in the Commercial Sector: Estimated Intensities and Costs for Canada Based on U.S. Survey Data." <u>Energy Studies Review</u>, (Volume 9, 1999): 23-45.
- Dean C. Mountain and Hugh A. Thomas, "Factor Price Misspecification on Bank Cost Function Estimation." <u>Journal of International Financial Markets, Institutions and Money</u>, (Volume 9, 1999): 163-182.
- Frank T. Denton and Dean C. Mountain, "Income Distribution and Aggregation/Disaggregation Biases in the Measurement of Consumer Demand Elasticities" <u>Economics Letters</u>, (Volume 73, October, 2001): 21-28.
- Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "Energy Demand with Declining Block Rate Schedules: An Econometric Model for the U.S. Commercial Sector." <u>Land Economics</u>, (Volume 79, March, 2003): 86-105.
- Frank T. Denton and Dean C. Mountain, "Aggregate Effects on Price and Expenditure Elasticities in a Quadratic Almost Ideal Demand System," <u>Canadian Journal of Economics</u>, (Volume 37, August, 2004): 613 628.
- Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "Errors of Aggregation and Errors of Specification in a Consumer Demand Model: A Theoretical Note," <u>Canadian Journal of Economics</u>, (Volume 39, November, 2006): 1398 1407.

Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "Age, Retirement, and Expenditure Patterns: An Econometric Study of Older Households," <u>Atlantic Economic Journal</u>, (Volume 34, December, 2006): 421-434.

Sherman Cheung, Clarence C.Y. Kwan and Dean C. Mountain, "On the Nature of Mean-Variance Spanning," Finance Research Letters, (Volume 6, June, 2009): 106-113.

Jonn Axsen, Dean C. Mountain and Mark Jaccard, "Combining Stated and Revealed Choice Research to Simulate the 'Neighbor Effect': The Case of Hybrid-Electric Vehicles," <u>Resource and Energy</u> Economics, (Volume 31, August, 2009): 221-238.

Frank T. Denton and Dean C. Mountain, "Exploring the Effects of Aggregation Error in the Estimation of Consumer Demand Elasticities," <u>Economic Modelling</u>, (Volume 28, July, 2011): 1747-1755.

Frank T. Denton and Dean C. Mountain, "Taxing a Commodity With and Without Revenue Neutrality," <u>Atlantic Economic Journal</u>, (Volume 39, September, 2011): 261-271.

Frank T. Denton and Dean C. Mountain, "The Implications of Mean Scaling for the Calculation of Aggregate Consumer Elasticities," <u>Journal of Economic Inequality</u>, (Volume 12, September, 2014): 297-314.

M.W. Luke Chan, Keqiang Hou, Xing Li, Dean C. Mountain, "Foreign Direct Investment and its Determinants: A Regional Panel Causality Analysis," <u>Quarterly Review of Economics and Finance</u>, (Volume 54, November, 2014): 579-589.

Wen Zhou and Dean C. Mountain, "The Benefits of Combining Utility-Controlled Demand Response with Residential Zoned Cooling," <u>Energy Efficiency</u>, (Volume 7, December, 2014): 1067-1099.

Peer Reviewed Book Chapters:

Dean C. Mountain, "The Effect of Price Elasticity, Metering and Consumer Response on the Right Price," in Doug Reeve, Donald N. Dewees and Bryan W. Karney, eds, *Current Affairs- Perspectives on Electricity Policy for Ontario*, Toronto, University of Toronto Press, 2010: Chapter 9, 137-141.

Not Peer Reviewed Documents:

M.W. Luke Chan and Dean C. Mountain, "The Influence of Higher Energy Prices on Canadian Agricultural Productivity," in <u>International Energy Markets - The Changing Structure</u>, Proceedings of the Fourth Annual International Conference of International Association of Energy Economists and British Institute of Energy Economists, Cambridge University, 1983.

Not Peer Reviewed Documents (continued):

Dean C. Mountain and Evelyn L. Lawson, "Some Preliminary Results from Ontario Hydro's Time-of-Use Residential Experiment," in <u>World Energy Markets: Coping with Instability</u>, Proceedings of the Ninth International Conference of International Association of Energy Economists, Calgary, 1987, 379-390.

Cheng Hsiao, Dean C. Mountain and Kathleen F. Ho, "A Comparison of Alternative Approaches for Integrating End-Use Metering and Aggregate Load Data," in <u>Proceedings of the 1990 Taipei Symposium in Statistics</u>, Taipei, Taiwan, 1990, 183-213.

Dean C. Mountain, Ronald B. Robinson and Frank Eaton, "The Load Impact of a Community Based Energy Efficiency Demonstration Project," in <u>Experimenting with Freer Markets: Lessons from the Last 20 Years and Prospects for the Future:</u> 21st Annual International Conference of International Association for Energy Economics, 1998.

Unpublished Documents:

M.W. Luke Chan and Dean C. Mountain, "The Measurement of Total Factor Productivity in Canadian Agriculture," Institute for Policy Analysis, University of Toronto, Working Paper Series, 8ll3, 1981.

M.W. Luke Chan and Dean C. Mountain, "Economies of Scale and the Tornqvist Discrete Measure of Productivity Growth - A Study of the Canadian Agricultural Sector," QSEP Research Report No. 12, McMaster University, 1981.

M.W. Luke Chan and Dean C. Mountain, "Technological Change and Economies of Scale in Financial Institutions: A Tale of Two Hypotheses," QSEP Research Report No. 56, McMaster University, 1982.

Dean C. Mountain, "Dual Measures of Interregional Efficiency Differentials in Canada: Cost versus Profit Formulations," mimeograph, 1982.

Dean C. Mountain, "Dual Discrete Measures of Technical Progress in Canada: Cost versus Profit Formulations," mimeograph, 1982.

Cheng Hsiao and Dean C. Mountain, "Estimating the Short-Run Income Elasticity of Demand for Electricity Using Cross-Sectional Categorized Data," Bell Laboratories Economic Discussion Paper, No. 259, Bell Laboratories, 1983; MRG Working Paper No. M8422, University of Southern California, 1984; and Rates Department Research Report R-85-8, Ontario Hydro, 1985.

M.W. Luke Chan and Dean C. Mountain, "The Interactive and Causal Relationship Involving Precious Metal Price Movements: An Analysis of the Gold and Silver Markets," QSEP Research Report, No. 87, McMaster University, 1983.

Cheng Hsiao and Dean C. Mountain, "Modelling the Off-Peak to Peak Consumption Response to Changing Rate Structures: An Econometric - Time Series Analysis of Ontario's Industrial Customers," Load Forecasts and Rates Department Research Report R-85-5, Ontario Hydro, 1985.

M. W. Luke Chan and Dean C. Mountain, "Measuring Returns to Scale and Technological Change in Co-operative Banks: A Provincial Analysis of Canadian Credit Unions and Caisses Populaires," QSEP Research Report No. 132, McMaster University, 1985.

Dean C. Mountain, "Allowing for Unrestricted Returns to Scale and Technical Change in a Joint Production Formulation: Some Empirical Results on Canadian Factor Income Impacts of changes in Tariffs, Export Stimuli and Technical Progress," mimeograph, 1985.

Dean C. Mountain and Cheng Hsiao, "Peak and Off Peak Industrial Demand for Electricity: The Hopkinson Rate in Ontario, Canada," No. MR8524, University of Southern California, 1985.

Frank Denton, Leslie Robb, Byron Spencer, Tony Bessel, Kevan Jefferies, Dean Mountain and Frank Trimnell, "Report on the Development of HELPS - A Model Designed for Forecasting and Simulation of Load Patterns," Rates Department Research Report R-85-6, Ontario Hydro, 1985; and QSEP Research Report No. 142, McMaster University, 1985.

Frank Denton, Leslie Robb, Byron Spencer, Tony Bessel, Kevan Jefferies, Dean Mountain and Frank Trimnell, "An Optimization Model for Simulating the Industrial Response to Alternative Electricity Rate Structures," Rates Department Research Report R-85-7, Ontario Hydro, 1985; and QSEP Research Report No. 143, McMaster University, 1985.

M.W. Luke Chan and Dean C. Mountain, "Measuring the Importance of Energy Price Movements and Technological Progress to Unit Cost Changes in Agriculture," mimeograph, 1986.

Frank Denton, Kevan Jefferies, Dean Mountain, Leslie Robb and Byron Spencer, "The Response of an Industrial Firm to Alternative Electricity Rate Structures: An Optimization Model for Simulation Applications," Rates and Strategic Conservation Department Report R-86-14, Ontario Hydro, 1986.

Dean C. Mountain, "The Rotterdam Model: An Approximation in Variable Space," QSEP Research Report No. 179, McMaster University, 1986.

Dean C. Mountain, "A Quadratic Quasi Cobb Douglas Extension of the Multi-input CES Formulation," QSEP Research Report No. 195, McMaster University, 1987.

Cheng Hsiao, M.W. Luke Chan, Dean C. Mountain and Kai Y. Tsui, "An Integrated Monthly and Hourly Regional Electricity Model for Ontario Canada," MRG Working Paper No. M8728, 1987, University of Southern California.

Dean C. Mountain and Evelyn L. Lawson, "Some Preliminary Responses from Ontario's Time-of-Use Residential Experiment," Rates and Strategic Conservation Department Report R-87-5, Ontario Hydro, 1987.

M.W. Luke Chan, Itzhak Krinsky and Dean C. Mountain, "The Analysis of Productivity of Life Insurers - Accounting for Returns to Scale," QSEP Research Report No. 215, McMaster University, 1987.

Dean C. Mountain and Cheng Hsiao, "A Combined Structural and Flexible Functional Approach for Modeling Energy Substitution," QSEP Research Report No. 234, McMaster University, 1988.

Lloyd Spitzig, Dean C. Mountain, Dale J. Poirier and Evelyn Lawson, "An Examination of Time-of-Use Electricity Rates Using a Finely Disaggregated Demand Model," Rates Department Report R-88-8, Ontario Hydro, 1988.

Dean C. Mountain, An "Almost Ideal" Examination of Load Shifting with Time-of-Use Electric Rates (1982-84 Seasonal Results)" Product Testing and Analysis Department Report PTA-89-31, Ontario Hydro, 1989.

Dean C. Mountain, "A Flexible Approach for Modelling Very Disaggregated Responses to Time-of-Use Electricity Rates," Product Testing and Analysis, Product Testing and Analysis Department Report PTA-90-2, Ontario Hydro, 1990.

Dean C. Mountain and Evelyn L. Lawson, "Evidence of Response to Time-of-Use Electricity Rates: Daily and Monthly Analysis Using the Rotterdam Model. Product Testing and Analysis Department Report PTA-90-15, Ontario Hydro, 1990.

Frank T. Denton, Christine H. Feaver, Dean C. Mountain, A Leslie Robb and Byron G. Spencer, "Daily Electricity Load Profiles for Industry-Region Cells: Econometric Estimation Based on Marginal Totals," QSEP Research Report No. 264, McMaster University, 1990.

Dean C. Mountain and Jing L. Zhu, "Time-of-Use Impacts on Ontario Hydro's Direct Industrial Customers: Econometric Methodology," Economics and Forecasts Division and Product Testing and Analysis Department, Ontario Hydro, 1991.

Dean C. Mountain, "An Ex post Econometric Analysis of the New Rate Structure on Large Municipalities," Economics and Forecasts Division, Ontario Hydro, 1991.

Dean C. Mountain and William Cheng, "Econometric Study of the 1991 Time-of-Use Impact on 51 Direct Industrial Customers," Economics and Forecast Division and Program Testing and Analysis Department, Ontario Hydro, 1992.

Dean C. Mountain, "An Overall Assessment of the Responsiveness of Households to Time-of-Use Electricity Rates," Product Testing and Analysis Department Report, PTA-92-9, Ontario Hydro, 1992.

William Cheng and Dean C. Mountain, "Econometric Study of the 1992 Time-of-Use Impact on Direct Industrial Customers," Economics and Forecast Division and Program Testing and Analysis Department, Ontario Hydro, 1993.

Dean C. Mountain, Cheng Hsiao, Kathleen F. Ho, "End-Use Profiles for Electric Heating, Electric Water Heating and Air Conditioning - A Bayesian Approach to Conditional Demand Analysis," Load and Energy Management Research Department, LA 93-5, Ontario Hydro, 1993.

Cheng Hsiao and Dean C. Mountain, "A Framework for Regional Modelling and Impact Analysis - An Analysis of the Demand for Electricity by Large Municipalities in Ontario, Canada," QSEP Research Report No. 305, McMaster University, 1993.

Dean C. Mountain and William Cheng, "Evaluation of 1993 Load Shifting Impacts: Methodology and Results," Planning, Evaluation and Forecasting Division, Ontario Hydro, 1994.

Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "Fertility, Age Distribution and the Aggregate Production Function," QSEP Research Report No. 310, McMaster University, 1994.

Frank Eaton, Dean C. Mountain and Ron B. Robinson, "Espanola Power Savers Project Load Impact Evaluation," Monitoring and Evaluation Department, Ontario Hydro, 1995.

Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "A Quadratic Almost Ideal Demand System Estimated with Pooled Regional Time Series: Approximate Aggregation with an Accounting for Age, Cohort and Trend Effects," QSEP Research Report No. 315, McMaster University, 1996.

Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "The Alberta Energy Audit Data Base: A Preliminary Report," CCEEDAC Report 96:1, The Canadian Commercial Energy End-Use Database and Analysis Centre, 1996.

Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "Energy Use in the U.S. Commercial Sector: Comparisons with Manitoba and Alberta, CCEEDAC Report 96:2, The Canadian Commercial Energy End-Use Database and Analysis Centre, 1996.

Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "Energy Demand in the U.S. Commercial Sector: An Exploratory Multivariate Analysis," CCEEDAC Report 96:3, The Canadian Commercial Energy End-Use Database and Analysis Centre, 1996.

Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "Errors of Approximation and Errors of Aggregation in an Almost Ideal Demand System," QSEP Research Report No. 330, McMaster University, 1997.

Frank T. Denton and Dean C. Mountain, "On the Biases in Macro Elasticities as Micro Elasticities, and Vice Versa, in an Almost Ideal Demand System" QSEP Research Report No. 331, McMaster University, 1997.

Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "Energy Use in the Commercial Sector: Estimated Intensities and Costs for Canada Based on US Survey Data," QSEP Research Report No. 337, McMaster University, 1997 and in CCEEDAC Report 97:1, The Canadian Commercial Energy End-Use Database Analysis Centre, 1997.

M.W. Luke Chan, Dean C. Mountain and Ni Jadon, "A Review of Literature on the Issues of Economies of Scale and Scope for Financial Institutions," July, 1998.

M.W. Luke Chan, Dading Li and Dean C. Mountain, "A Bayesian Approach for Measuring Economies of Scale with Application to Large Canadian Banks," QSEP Research Report No. 338, McMaster University, 1999.

Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "A Methodology for Integrating Fuel Price Impacts into the Forecast of Commercial Energy Demand," CCEEDAC Report 99.1, The Canadian Commercial Energy End-Use Database Analysis Centre, 1999.

Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "A Model of Energy Demand in the U.S. Commercial Sector with Declining Rate Schedules," QSEP Research Report No. 346, McMaster University, 2000.

Ken Deal and Dean C. Mountain, "The Use of Discrete Choice Modeling for Evaluating Energy Efficiency Programs," Natural Resources Canada, 2001.

Frank T. Denton and Dean C. Mountain, "Aggregation Effects on Price and Expenditure Elasticities in a Quadratic Ideal Demand System," QSEP Research Report No. 374, McMaster University, 2002.

Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "Age, Retirement and Expenditure Patterns: An Econometric Study of Older Canadian Households," QSEP Research Report No. 375, McMaster University, 2002.

Frank T. Denton, Dean C. Mountain and Byron G. Spencer, "Temperature Fluctuations and Energy Use: A Stochastic Simulation Study of Buildings in the Commercial Sector," Environment Canada, 2002.

Ken Deal and Dean C. Mountain, "Demand Side Management Research to Establish Free Ridership Rates," Union Gas, November, 2004.

Ken Deal, Frank T. Denton, Mel Kliman, Dean C. Mountain and Byron G. Spencer, "Review and Assessment of York Region Load Forecasts and CDM Programs," Ontario Power Authority, June, 2005.

Dean C. Mountain, "The Impact of Real-Time Feedback on Residential Electricity Consumption: The Hydro One Pilot," Hydro One, March, 2006.

Taki Eliadis, Dean C. Mountain, Michael Singleton, "Automated Meter Infrastructure White Paper: Issues, Barriers and Technologies," Sustainable Development Technology Canada, April, 2006.

Dean C. Mountain, "Residential Load Control: The Hydro One Pilot," Hydro One, December, 2006.

Dean C. Mountain, "Real-Time Feedback and Residential Electricity Consumption: British Columbia and Newfoundland and Labrador Pilots," CEA Technologies Inc. and Natural Resources Canada, June, 2007.

Dean C. Mountain, "Cost Allocation Study: Load Research Methodology for Construction of Generic Load Shapes," Consortium of Ontario Electricity Local Distribution Companies, June, 2007.

Ken Deal and Dean C. Mountain, "Assessing Day-Ahead Market Benefits in the Ontario Electricity Market," Independent Electricity Systems Operator, November, 2007.

Dean C. Mountain, "Residential Load Control: The Toronto Hydro Pilot," Toronto Hydro, December, 2007.

Frank T. Denton and Dean C. Mountain, "Exploring the Effects of Aggregation Error in the Estimation of Consumer Demand Elasticities," SEDAP Research Paper 226, McMaster University, 2007; and QSEP Research Report 425, McMaster University, 2007.

Ken Deal and Dean C. Mountain, "Assessing Whether Firm Day-Ahead Prices Lead to Changes in Elasticity of Demand and Greater Customer Efficiencies," Independent Electricity Systems Operator, May, 2008.

Dean C. Mountain, "Conservation and Customer Perceptions: The Power Cost Monitor Pilot of Dominion Virginia Power," Dominion Virginia Power, January, 2010.

Dean C. Mountain and Terry Strack, "Advanced Residential Load Reduction Pilot Project," Natural Resources Canada, December, 2010.

Dean C. Mountain, "Conservation and Customer Perceptions: The Power Cost Monitor Pilot of Santee Cooper," Santee Cooper, December, 2010.

Frank T. Denton and Dean C. Mountain, "Taxing a Commodity With and Without Revenue Neutrality: An Exploration using a Calibrated Theoretical Consumer Equilibrium Model," QSEP Research Report 445, McMaster University, 2011.

Frank T. Denton and Dean C. Mountain, "Aggregation and Other Biases in the Calculation of Consumer Elasticities for Models of Arbitrary Rank," QSEP Research Report 448, McMaster University, 2011.

Dean C. Mountain, "Conservation and Customer Perceptions: Alberta's Real-Time Electricity Monitoring Study," Alberta Ministry of Energy and Alberta Environment and Water, October, 2011.

Dean C. Mountain, Terry Strack, Wen Zhou and Bartosz Lomanowski, "The Zone-Saver Field Trial: Utility Controlled Demand Response with Residential Zoned Cooling," Natural Resources Canada and Ontario Power Authority, December, 2011.

Dean C. Mountain, "Real-Time Feedback and Residential Electricity Consumption: The Newfoundland and Labrador Pilot," SEDAP Research Paper 294, McMaster University, 2012; and QSEP Research Report 449, McMaster University, 2012.

Ahmad Faruqui, Sanem Sergici, Neil Lessem, Dean C. Mountain, Frank T. Denton, Byron G. Spencer, Chris King, "Impact Evaluation of Ontario's Full Scale Roll-out of TOU Rates: First Year Analysis," Ontario Power Authority, November, 2013.

Peter Steele-Mosey, Ben Grunfeld, Dean C. Mountain, Bill Provencher, Todd Williams, "Time-of-Use Rates in Ontario, Part 2: Alternative Scenario Analysis," Ontario Energy Board, December, 2013.

Ahmad Faruqui, Sanem Sergici, Neil Lessem, Dean C. Mountain, Frank T. Denton, Byron G. Spencer, Chris King, "Year Two Analysis of Ontario's Full Scale Roll-out of TOU Rates," Ontario Power Authority, November, 2014.

Presentations at Meetings:

Some Preliminary Results of Ontario Hydro's Time-of-Use Residential Experiment, Midwest Regional AEIC Load Research Conference, Chicago, Illinois, 1985.

Technological Change and Economies of Scale in Canadian Financial Institutions: A Selection from Competing Hypotheses, with M.W. Luke Chan, Atlantic Schools of Business Conference, Fredericton, New Brunswick, 1986.

Ontario Hydro Time-of-Use Experiment, with Barry Conway, Canadian Electrical Association, Calgary, Alberta, 1987.

Some Preliminary Results from Ontario Hydro's Time-of-Use Residential Experiment, with Evelyn L. Lawson, 9th International Conference of the International Association of Energy Economists, Calgary, Alberta, 1987.

A Combined Structural and Flexible Functional Approach for Modeling Energy Substitution, with Cheng Hsiao, European Meetings of the Econometric Society, Copenhagen, Denmark, 1987.

Electricity Demand Management and Rate Structures, Beijing Energy Association, Beijing, China, 1988.

Presentations at Meetings (continued):

Interpolating Regional Industrial Load Profiles, with Frank Denton, Byron Spencer and Leslie Robb, Load Research Symposium, Hamilton, Ontario, 1989.

Bayesian Conditional Demand Analysis, with Cheng Hsiao and Kathleen F. Ho, Load Research Symposium, Hamilton, Ontario, 1989.

Conditional Demand Analysis, Load Research Symposium, Hamilton, Canada, October, 1992.

Ontario Hydro's Time-of-Use Residential Experiment: Design, Implementation, Analysis and Results, with Lloyd Spitzig, Load Research Symposium, Hamilton, Canada, October, 1992.

Time-of-Use Responsiveness by Large Industrial Customers, with William Cheng, Load Research Symposium, Hamilton, Canada, October, 1992.

A Framework for Regional Modelling and Impact Analysis - An Analysis of the Demand for Electricity by Large Municipalities in Ontario, Canada," with Cheng Hsiao, Western Regional Science Association, Maui, Hawaii, February, 1993.

Allowing for Selection Bias in the Estimation of the Effect of Time-of-Use Prices on the Electricity Demand of Small Commercial Establishments: Evidence from Experimental Data," with John C. Ham and M.W. Luke Chan, Applied Econometric Conference in Honour of Retirement of Richard Quandt, Princeton, New Jersey, May, 1995.

The Load Impact of a Community Based Energy Efficiency Demonstration Project, with Ronald B. Robinson and Frank Eaton, International Association of Energy Economics, Quebec, Canada, May, 1998.

Spanning Tests of Asset Pricing: A Minimal Encompassing Approach, with Sherman Cheung and Clarence C. Y. Kwan, Northern Finance Association, Waterloo, Canada, October, 2000.

Estimating End-Use Specific Energy Saving from a Community Based Energy Efficiency Program: A Bayesian Integration of End-Use and Billing Data, with Ronald B. Robinson and Frank Eaton, University of Laval, Canada, January, 2001.

A Bayesian Methodology for Assessing End-Use Conservation Due to Demand-Side Initiatives in the Residential Sector, North American Conference of the United States Association for Energy Economics/ International Association for Energy Economics, Vancouver, Canada, October, 2002.

Ontario Water Heater and Air Conditioner Load-Control Pilots, Demand Response Workshop, McMaster Institute for Energy Studies, Hamilton, Canada, November, 2004.

Rising Energy Prices: Their Impacts on the Elderly, SEDAP Conference, Hamilton, Canada, May, 2005.

Presentations at Meetings (continued):

Real Time Pilot: Stratification and Analysis, Real time Energy Feedback Forum, Toronto, Canada, May, 2005.

An Introduction to Conservation and Demand Management, Conservation and Demand Management Workshop, McMaster Institute for Energy Studies, Hamilton, Canada, May, 2005.

Using In-Home Energy-Use Displays to Promote Conservation and Demand Management in the Residential Sector, Sustainable Development in Communities Workshop, DeGroote School of Business, McMaster University, Hamilton, Canada, November, 2007.

Finding the Right Price, Current Affairs – Perspectives on Electricity Policy for Ontario, University of Toronto, Toronto, Canada, June, 2008.

Real-Time Feedback and Residential Energy Consumption, Energy Behavior Change + Low-Energy Homes, MIT, Cambridge, Massachusetts, USA., June, 2008.

Instantaneous Energy-Usage Displays and Impacts on Customer Behaviour, Smart Metering and Advanced Metering Infrastructure Conference, DeGroote School of Business, McMaster University, Hamilton, Canada, November, 2009.

Impact of Customer Behavior on the Electric Grid, The Evolution of the Electricity Grid: Cognitive Energy Systems, McMaster Institute for Energy Studies, Hamilton, Canada, March, 2010.

Customer Behavior and Pricing, EPRI Consumer Behavioral Program: Program Design Workshop, Electric Power Research Institute, Knoxville, Tennessee, USA, December, 2010.

Conservation and Pricing: The Importance of Customer Behavior, Ministry of Energy, Toronto, Canada, January, 2011.

Comfort and Energy Results from an Ongoing Field Trial of Zoned Systems, with Terry Strack, Vaughan Builders Association, Vaughan, Canada, February, 2011.

Zoning: A Solution to Reduce Residential Electricity and Natural Gas Use while Improving Homeowner Comfort, with Terry Strack, Field Studies Results from the Residential Zoning and Zonesaver Demand Response Pilot Trials, Hamilton, Canada, May, 2011.

Utility- Controlled Demand Response Field Trial of Residential Zoned Cooling Systems, with Terry Strack and Wen Zhou, Field Studies Results from the Residential Zoning and Zonesaver Demand Response Pilot Trials, Hamilton, Canada, May, 2011.

Designing a Strategy Portfolio of Pricing Plans for Segments of Residential Customers, with Ken Deal, Electricity and Power Research Institute (EPRI) Understanding How Customers Value and Use Electricity Workshop, San Antonio, Texas, USA, October, 2011.

Presentations at Meetings (continued):

Alberta's Real-Time Electricity Monitoring Study, Alberta Department of Environment and Water and Alberta Department of Energy, Edmonton, Canada, January, 2012.

RDR and the Active Consumer, Getting to Market With Peaksaver Plus, Ontario Power Authority, Toronto, Canada, April, 2012.

The Consumer Making Choices in a Smart Grid Environment, Energy Matters Summit, Toronto, Canada, May, 2012.

Information, Choice and Flexibility, Conservation and Demand Management in a Sustainable Future, Burlington, Canada, June, 2012.

Utility Controlled Zoning of Residential Cooling for Peak Demand and Energy Savings, with Jeremy Sager, Conservation and Demand Management in a Sustainable Future, Burlington, Canada, June, 2012.

Evaluation of Ontario's Time-of-Use Electricity Rates: First Year Analysis, Toronto Association of Business Economics, Toronto, Canada, March, 2014.