

Dr. David Lewis

SUMMARY

Trained at the London School of Economics, Dr. David Lewis has served as an economist and policy analyst in the Canadian federal government (Office of the Auditor General); the U.S. Congress (Congressional Budget Office); and local government in the United Kingdom (Greater London Council). In the mid-1980s he founded the firm HLB Decision Economics Inc. With offices in Ottawa and Washington D.C. the practice flourished as a source of domestic expertise in both nations and support to government and business on bilateral issues. In 2005 HLB was acquired by HDR Inc., a U.S. engineering, architectural and consulting firm (\$1 billion in annual revenues) seeking to add an economics and policy practice to its range of services, and to expand its operations to Canada. Now serving as Senior Vice President and Chief Economist of HDR, Dr. Lewis is internationally recognized for his work in the integration of risk assessment into the methods of policy analysis; the facilitation of public-private partnerships; Cost-Benefit Analysis as a deliberative process; the integration of social and economic policy regarding people with disabilities; and infrastructure finance. Widely published, his areas of expertise extend to public infrastructure; environment and natural resources; and healthcare. Dr. Lewis is a Canadian citizen.

PROFESSIONAL QUALIFICATIONS

Ph.D. (Economics) London School of Economics (1985)

M.Sc. (Economics) Specialization: Urban and Regional Planning, London School of Economics (1974)

B.Sc. (Economics) College of Business and Public Administration, University of Maryland (1972)

EXPERT QUALIFICATIONS

Qualified Expert Witness (Economist) in U.S. Superior Court System

Qualified Expert Witness (Economist) Canadian Federal Environmental Assessment Review Process

Qualified Expert Witness (Economist) Canadian Transportation Agency Human Rights Tribunal

EMPLOYMENT HISTORY

Senior Vice President, HDR | HLB Decision Economics Inc., March 2005 – present

President and Chief Executive Officer, HLB Decision Economics Inc., July 1989 – March 2005

Partner-in-Charge, Division of Economics and U.S. Operations, Hickling Corporation, Washington, Ottawa, Toronto (October 1983 - July 1989)

Chief Economist, Office of the Auditor General of Canada, Executive Interchange Program (May 1985 -September 1986)

Principal Analyst, United States Congressional Budget Office, Congress of the United States (September 1978 - September 1983).

Senior Economist, Electricity Council of England and Wales, 1976-1978

Planner, London Transport, Greater London Council, 1973-1976

AWARDS/HONOURS

Named a "**2007 Trendsetter**" by **Public Works magazine**, November, 2007

Elected Permanent Member, *Transportation Research Board, Committee on Specialized Transportation, January 2006*

Elected Fellow, *Chartered Institute of Logistics and Transportation*, April 2003

William G. Bell Award for Outstanding Leadership in the Field of Specialized Transportation, October 1992, Transportation Research Board, National Research Council,

U.S. Comptroller General's Medal for *Elmer B. Staats Award* for best article published over three previous years in International Journal of Government Auditing, 1989.

Saltzman Prize for best article published in Harvard University's Journal of Policy Analysis and Management, 1984.

PUBLICATIONS, TESTIMONY AND INVITED SEMINARS

Books and Contributions to Books

Assessing the Benefits and Costs of Intelligent Transportation Systems (Chapter 2: Public-Private Partnering), Eds. David Gillen and David Levinson, Kluwer Academic Publishers, 2004

Policy and Planning as Public Choice: Mass Transit in the United States, Ashgate, 1999 (with Fred Lawrence Williams)

A Look Ahead; Year 2020; (I: The Role of Public Infrastructure in the 21st Century) Transportation Research Board, National Research Council, Washington, D.C. 1988.

Urban Fares Policy, (Chapter 5: Income Distribution) --Principal Author, A. Grey, Saxon House, 1975.

JOURNAL ARTICLES

Impact of Reliability on Paratransit Demand and Operating Costs. *Transportation Planning and Technology*, Vol. 21(3), 1997.

An Integrated Fares Policy for Transport in London (Reprinted in *Transport Economics, Journal of Public Economics*, 1975, with Stephen Glaister).

The Future of Forecasting: Risk Analysis as a Philosophy of Transportation Planning. TR News, No. 177, March-April 1995.

Risk Analysis for Forecasting and Public Agency Decision Making: Quantifying Uncertainty While Building Public Consensus, Government Finance Review, June 1992.

Making Paratransit Planning Decisions When Budgets are Constrained, Journal of Specialized Transportation Planning and Practice, Volume 3, Number 3, 1989.

Methodology for Auditing Cost-Recoverable Programs: Theory and Practice, International Journal of Government Auditing, January 1988.

Managing Political Risk in Investment Planning, Journal of Policy Analysis and Management, June 1984.

Transportation for Handicapped Persons: From Policy to Administration, Journal of Specialized Transportation Planning and Practice, an International Journal, Volume 1, Number 1, 1982.

An Integrated Fares Policy for Transport in Greater London, Journal of Public Economics, June 1978.

Estimating the Influence of Public Policy on Road Traffic Levels in Greater London, Journal of Transport Economics and Policy, May 1977.

Public Transport Fares and the Public Interest, Town Planning Review, Vol. 146, July 1975.

EXPERT TESTIMONY

Expert testimony before the Hon. Al Gore (Gore Foundation for Climate Change) on the redevelopment and refinancing urban infrastructure and the prospective role of congestion pricing and alternative financing mechanisms, May, 2008

Served on National Expert Panel on Economic Development at the invitation of the Administrator of the Federal Transit Administration, October, 2007

Testimony of David Lewis, Ph.D., U.S. House of Representatives, Before the Committee on Transportation and Infrastructure, Sub-Committee on Highways and Transit, Cost-Benefit Analysis and Investment, May 2007

Expert witness before the Canadian Transportation Agency, Human Rights Tribunal, One-Person/One Fare for People with Disabilities, Multiple appearances, 2006; 2007

Expert testimony before the Canada Transport Act Commission, 2003

Expert testimony before the Federal Environmental Assessment Review Process, Vancouver International Airport (January-February 1991).

Testimony of David Lewis, Ph.D., U.S. House of Representatives, Committee on Public Works and Transportation, June 1990 (On Transportation, Business Productivity and Economic Development).

Testimony of Alice Rivlin and David Lewis, Committee on Public Works and Transportation (On Benefit-Cost Analysis of Modernizing the Air Traffic Control System), May 1985.

Testimony of Alice Rivlin and David Lewis, U.S. Senate Banking Committee, (On Transportation for Disabled Persons), April 1984.

OTHER PUBLICATIONS AND PAPERS AS PRINCIPAL AUTHOR

Forecasting the Demand for Paratransit under the Americans with Disabilities Act, (with David Koffman), Transit Cooperative Research Program, 2008

The New Cost-Benefit Analysis, MacArthur Foundation, 2005

A Canadian Perspective on User Fees in Aviation, Administrative Conference of the United States, Federal User Fees Proceedings of a Symposium, Washington, D.C., 1988.

Treatment of Risk and Uncertainty in Transportation Planning. Proceedings of the Transportation Research Forum, June 1987.

Seventy-two columns on "Business and Government", Ottawa Business News, 1987-1989.

Should They Be Behind the Wheel? Transport '88, Volume 11/4, 1988, (Quarterly Magazine of the Canadian Department of Transportation).

Charging For Government Services, Congressional Budget Office, January 1984.

Airport Finance: Background and Options, Congressional Budget Office, February 1984 (Manuscript Available).

Public Works Infrastructure: Policy Considerations for the 1980's, Congressional Budget Office, April 1983.

Improving the Air Traffic Control System: An Assessment of the National Airspace System Plan, Congressional Budget Office, August 1983.

The Interstate Highway System: Issues and Options, Congressional Budget Office, June 1982.

Improving the Air Traffic Control System: An Assessment of the National Airspace System Plan, Congressional Budget Office, August 1983.

The Interstate Highway System: Issues and Options, Congressional Budget Office, June 1982.

Shifting Certain Airways Costs (in) Reducing the Federal Budget: Strategies and Examples, Seven Fiscal Years 1982-1986, Congressional Budget Office, February 1981.

The Impact of Trucking Deregulation on Small Communities: A Review of Recent Studies, Congressional Budget Office, February 1980.

Urban Transportation for Handicapped Persons: Alternative Federal Approaches, Congressional Budget Office, November 1979.

Medium Term National Energy Prospects, the Electricity Council, 1976.

The Market for Natural Gas, the Electricity Council, 1976.

INVITED SEMINARS AND LECTURES

Cost-Benefit Analysis as a Deliberative Social Process, Carleton University, February, 2008

Cost-Benefit Analysis as a Deliberative Social Process, MacArthur Foundation, Chicago, June, 2005

Resolving Conflict through Cost-Benefit Analysis, UCLA, Los Angeles, California, December 1997.

Assessing Risk, National Federation of Municipal Analysts, Buena Vista, Florida, November 1997.

Investment, Pricing and Economic Development, Jacques Cartier Institute of Science, Lyon, France, December 1991 (Led North American Delegation).

Risk Analysis and Investment Planning, The World Bank, December 1990.

Developing Consensus in Public Policy, University of British Columbia, June 1989.

Risk Analysis and Public Policy, Arizona State University, March 1989.

Efficiency, Innovation and Productivity in Canadian Public Infrastructure, Canadian Conference on Urban Infrastructure, February 1989.

Economic Analysis and Social Policy, Queen's University, Ontario, September 1987.

CONSULTING PROJECTS (SELECTED)

- **Transportation and Infrastructure, by category**
- **Public-Private Partnerships**
- **Information Technology**
- **Energy, Environment and Natural Resources**
- **Healthcare, Disability, Human Rights**

Transportation and Infrastructure

Public Transit

The Optimal Supply and Demand for Transit in Canada. For the Canadian Urban Transit Association, used second-best equilibrium optimizing model to estimate the optimal supply of transit in Canada in the absence of highway congestion pricing.

The Optimal Supply and Demand for Transit in the United States. For the American Public Transportation Association and the Transit Cooperative Research Program, used second-best equilibrium optimizing model to estimate the optimal supply of transit in the United States in the absence of highway congestion pricing.

Business and Economic Case for Light Rail Investment. For the cities of Austin and Cincinnati, conducted a comprehensive Cost-Benefit Analysis and financing plan for proposed new developments of regional light rail capacity.

Business and Economic Case for Bus System Expansion. For the city of Cincinnati, conducted a comprehensive Cost-Benefit Analysis and financing plans for a major expansion in stage bus and express bus route systems.

Cost-Benefit Framework and Computer Model for the Evaluation of Transit and Highway Investments. For the federal governments of both the United States and Canada, developed a comprehensive framework and user-friendly computer model for evaluating transit and highway investments. The model accounts comprehensively for costs and benefits, including time savings and delays, affordable mobility, community development, safety, and environmental values such reduction in greenhouse gas emissions, air and water quality and noise.

The Value Proposition for Transit Investment at the Federal Level. For the Review Commission examining the Canada Transportation Act, used second-best optimizing theory to quantify economically correct level of public funding for transit throughout Canada. Findings were published and used in the formulation of new federal policies for transit funding.

Local and Regional Transit Economic Impact Statements. For transit systems in Roanoke, Richmond, Dayton and elsewhere, developed transit economic impact statements giving the monetary value of transit benefits in the local community. Benefits include congestion and traffic management; affordable mobility; land-use management

and economic development; employment and disposable income; and growth in local tax revenue.

National Economic Impact of Transit in the United States. For the U.S. Federal Transit Administration, assessed the nationwide impact of transit on the national economy. FTA published these findings in its Annual Report and in testimony before several Congressional Committees.

Congressional Study on Efficiency of Transit Resource Allocation. For the U.S. Congress, conducted a major study to assess the economic efficiency with which federal funds are distributed between transit capacity expansion and transit rehabilitation and modernization.

Transportation and Infrastructure

Paratransit

Regulatory Cost-Benefit Analysis of Measures to Implement Non-Discrimination Clause of 14th Amendment in Transportation (Americans with Disabilities Act). For the U.S. Congress and U.S. Department of Transportation, conducted four years of research into the benefits of full accessibility and measures to ensure equality of service in the provision of specialized transportation.

For the Washington Metropolitan Area Transit Authority (WMATA). Conducted an econometric analysis of the demand for MetroAccess, a service provided by the Washington Metropolitan Area Transit Authority (WMATA) for people with disabilities.

For the Southeastern Pennsylvania Transportation Authority (SEPTA). Conducted an econometric analysis of the demand for paratransit ridership for the Customized Community Transportation (CCT) department of SEPTA.

For OC Transpo, Ottawa. Provided analysis of demand and productivity of the paratransit service. Used econometric techniques to evaluate the influence of fare, capacity denial rate, and seasonal factors.

For the New York Metropolitan Transportation Authority. Developed a statistical profile of the disabled population, including information on demographics and travel characteristics. Developed demand forecasts accounting for variation in level of service and fare.

Transportation and Infrastructure

Highways and Congestion Pricing

Regulatory Impact Analysis of Passenger Bill of Rights. For the United States Department of Transportation, Office of Regulatory Affairs, conducted the Regulatory Impact Analysis of proposed regulations governing airlines in the provision of passenger services during ground delays (known as the “Passenger Bill of Rights” regulation)

Assessment of Congestion Pricing on a National Scale. For the United States Department of Transportation, Office of the Secretary, developed and applied a model of the costs and benefits of applying congestion pricing throughout the United States

Mitigating the Effects of Congestion Pricing on Disadvantaged Groups. For the United States Department of Transportation, Office of the Secretary, developed a framework for ascertaining the effects of congestion pricing on different social groups and the means by which to mitigate negative effects for low and middle income households

Strategic Plan for New England and Canada's Atlantic Provinces. For the State of Maine and a coalition of New England states and Canadian Atlantic provinces, developed the "CAN-AM" regional economic development strategy, employing a wide range of economic analysis techniques and tools to examine and rank alternative strategies

Congestion Costs and Pricing for the Chicago Metropolitan Area. For the Chicago Metropolitan Planning Commission, developed a quantitative analysis of the costs of highway congestion to the economy of the Chicago metropolitan area; accounted for the effects of congestion on industry productivity, by sector; commuting costs and costs of business travel; and environmental costs

Congestion Costs and Pricing for the New York Metropolitan Area. For the Partnership for New York City, in conjunction with the City of New York, developed a quantitative analysis of the costs of highway congestion to the economy of the New York metropolitan area; accounted for the effects of congestion on industry productivity, by sector; commuting costs and costs of business travel; and environmental costs

Congestion Costs and Pricing for the Metropolitan Area of Kelowna, British Columbia. For the City of Kelowna, British Columbia, developed a quantitative analysis of the costs of highway congestion to the economy of the Chicago metropolitan area; accounted for the effects of congestion on industry productivity, by sector; commuting costs and costs of business travel; and environmental costs

Strategic Transportation Investment Planning for the Metropolitan Washington D.C Region. For the Washington Metropolitan Council of Governments, introduced an infrastructure investment analysis framework for assessing and ranking the rate of return on alternative region-wide transportation investment strategies

Cost-Benefit Analysis of \$17 billion Investment Proposal to Upgrade Canada's National Highway System. For the Inter-Provincial Council of Ministers of Transport, conducted a comprehensive Cost-Benefit Analysis of multi-year options for rehabilitating and expanding the Trans-Canada Highway and other roads of national significance. Traffic and economic outcomes were quantified in relation to travel-time, industrial logistics and productivity, vehicle operating cost savings, safety, environmental emissions (air quality and greenhouse gases) and pavement maintenance. Study used in a wide range of policy decision processes at all levels of government.

Impact of Highway Infrastructure Improvements on Industrial Organization and Productivity in the United States. For the U.S. Federal Highway Administration (federal Department of Transportation), developed a comprehensive economic and measurement framework for examining the business case for infrastructure improvements in relation to the logistics requirements of specific industries. The process is used by the federal government and the U.S. Congress in formulating new highway legislation.

Measuring the Effect of Transportation Policies on Canadian Provincial and Local Economies. For the Transportation Association of Canada, applied a comprehensive economic and measurement framework in examining the business case for infrastructure improvements in relation to Canadian industries of national significance. The process is used by Canadian provinces and municipalities in formulating new highway project proposals.

Measuring the Effect of Transportation Policies on the U.S. National Economy. For the National Cooperative Highway Research Program of the U.S. National Academy of Sciences, prepared a published “Primer” on the means of quantifying the effect of transportation regulations and infrastructure policies on regional economic performance. Now in its second printing.

Trade Corridor Economic Plan. For the State of Arizona (Arizona Department of Transportation), conducted an economic evaluation of the impacts of the North American Free Trade Agreement (NAFTA) on commodity flows over state roads. Also conducted an investment appraisal and risk assessment of associated potential transportation infrastructure requirements.

Development of the Strategic Benefit-Cost Analysis Computer Model (StratBENCOST). For the National Cooperative Highway Research Program of the National Academy of Sciences, developed a comprehensive new Cost-Benefit Analysis computer tool for use in investment planning by state and local governments. The model includes a database of most- estimates of highway vehicle user costs; safety rates and values; congestion values; environmental values; speed-flow algorithms. The model also includes a risk analysis tools for assessing safety and investment risk on a probabilistic basis.

Infrastructure Policy Review and Analysis in Relation to the National Transportation System. For the U.S. Federal Highway Administration, developed a series of working papers exploring alternative research directions and their significance to federal highway policy. The final paper, *Transportation and the Economy: the State of Research and Implications for Federal Policy*, examined the economic function of transportation systems and how economic criteria might be joined with engineering considerations in resource allocation and budgeting.

Transportation and Infrastructure
Trucking and Trucking-Related Intermodal

Road Pricing and the Conjecture of Positive Externalities in the Trucking Industry.

For the American Trucking Research Foundation, developed a neo-classical micro-economic theory of positive externalities in relation to supply chain linkages. Applied theory to the question whether road pricing of negative externalities of trucking would diminish creation of positive externalities by raising the price of Just-in-Time services and thereby inhibiting industry-led productivity growth. Risk analysis of both the theoretical and empirical uncertainties indicate a material (though less than 50 percent) probability that road pricing would diminish positive externalities to a greater extent than negative externalities (by value).

Impact of Congestion on Value of Time in Trucking. For the National Cooperative Highway Research Program, conducted contingent valuation study to measure the value of increased reliability in relation to highway infrastructure and intermodal infrastructure improvements. The study, published as NCHRP Report 431, finds that the unit value of reliability, measured as a reduction in the standard deviation of average transit time, is approximately 2.5 times greater than an equivalent unit value reduction in average transit time.

Environmental (Air Quality and Greenhouse Gas) Emissions from Trucks. For Transport Canada, developed a computer model for forecasting and valuing truck-based environmental emissions associated with congestion and highway improvements.

Impact of Trucking Deregulation on Service to Small Communities. For the U.S. Congressional Budget Office, conducted a study of how deregulation of the trucking industry would affect service to small communities. Found that most small communities are served by logistical operations (such as peddle runs) that would not be affected by deregulation.

Transportation and Infrastructure
Rail Freight and Rail-Related Intermodal

Public-Private Partnership for Investment Track Relocation and Grade-Crossing Removal in Waycross, Georgia. For CSX Transportation, assessed the private and public rate of return on specific investment proposals for track relocation, grade-crossing removal and related improvements in relation to a prospective joint investment program with the city of Waycross, Georgia, the state of Georgia and the U.S. federal government. Also facilitated related public-private partnering negotiations.

Public-Private Partnership for Investment Track Relocation and Grade-Crossing Removal in Vincennes, Indiana. For CSX Transportation, assessed the private and public rate of return on specific investment proposals for track relocation, grade-crossing removal and related improvements in relation to a prospective joint investment program

with the city of Vincennes, Indiana, the state of Indiana and the U.S. federal government. Also facilitated related public-private partnering negotiations.

Cost-Benefit Analysis Models for Assessing the Public Rate of Return on Rail and Rail-Related Intermodal Investments. For the U.S. Federal Railroad Administration, developed two Cost-Benefit Analysis model framework and computer tool for evaluating the public and private rates of return on grade-crossing and intermodal projects. The models have been used in the evaluation of such projects as the Cincinnati Third-Rail, various double-stack/tunnel proposals and a large number of grade-crossing removal projects. Called RailDec (for intermodal projects) and GradeDec (for grade-crossing projects), both models are now in the public domain and used on a regular basis throughout the industry.

Merger Impact Analysis in the Formation Conrail. For the Congressional Budget Office, conducted early impact analysis of the then-proposed merger, with special reference to coal markets.

Transportation and Infrastructure

Marine

Model of the Industry-Wide Impact of Federal Fees on Commercial Shipping. In response to Treasury Board's federal cost recovery initiatives, developed a model with which to measure the cumulative economic impact of increasing federal user fees on the commercial shipping industry. Developed a comprehensive "partial equilibrium" model and implemented the model for several industry sectors.

The Wheat Market in the Laurentian and Central Regions. For Consulting and Audit Canada, developed and quantified a model to estimate the financial effects of navigation user fees on marine shipping in the wheat sector. The model accounts for the extent to which cost increases can be passed on to customers; the degree of competition within the industry; the cost of transfer facilities and intermodal activities involved in the shipment of grains; and the sensitivity of grain prices on international markets.

Economic Value of the Canadian Marine Transportation Industry. For Transport Canada, developed a model for measuring the financial and economic value of the Canadian marine transportation industry. An econometric framework was developed that optimizes the use of available data without making claims on data from privately held firms (data that is typically closely held and unavailable for third-party studies).

Comparative Analysis of Marine User Fees in Canada and the United States. For the Treasury Board and Consulting and Audit Canada, compared marine user fees in Canada and the United States, with a view to assessing their relative role in the operating costs of shippers in both nations. A comprehensive, computer-based inventory of fees in each nation was developed, reconciled to ensure like-with-like comparability, and compared with the operating cost structure of the industry in each country.

Transportation and Infrastructure

Aviation

Regulatory Impact Analysis of Passenger Bill of Rights. For the United States Department of Transportation, Office of Regulatory Affairs, conducted the Regulatory Impact Analysis of proposed regulations governing airlines in the provision of passenger services during ground delays (known as the “Passenger Bill of Rights” regulation)

Vancouver International Airport. For Transport Canada, conducted year-long Cost-Benefit Analysis and related public engagement process regarding alternative measures to address congestion at Vancouver International Airport. Engaged citizens’ groups in analysis of social benefits and costs of a new runway and a newly developed international airport at Abbotsford.

Federal Regulatory Framework for Airport Landing Fees and other Airport Rates and Charges. For the Federal Aviation Administration, developed policy principles, appeals mechanisms and regulatory analyses in support of the agency’s 1998 rulings on airport rates and charges. Lewis serves on the FAA’s related “Innovative Financing Steering Group.”

Second Airport in Minneapolis-St. Paul, Minnesota. For the Metropolitan Council of the Twin Cities, conducted financial and economic analysis regarding options for airport expansion, including that of relocating the international airport. Facilitated area-wide public outreach and risk analysis panels over the course of a year with a view to obtaining region-wide consensus on airport development in the Twin Cities.

Toronto Lester B. Pearson International Airport -- Economic Impact Assessment. For the Toronto International Airport, assessed the regional macroeconomic effect of the airport, its operations, and plans for its expansion (including air side facilities, terminal facilities and groundside facilities).

Policy and Analysis Support for the U.S.-Canada Bi-Lateral International Air Transport Treaty. For U.S. and Canadian federal Departments of Transportation, developed an international trade-based Cost-Benefit Analysis model to assist negotiators in finding win-win changes in air freedoms for both nations.

Policy and Analysis Support for the Canada in Bi-Lateral International Air Transport Treaty Negotiations. For Canada’s federal Department of Transportation, developed an international trade-based Cost-Benefit Analysis model to assist negotiators in finding win-win changes in air freedoms for Canadian airlines operating in European and Asian nations.

Review of Federal Rental Rates at Canadian Local Airport Authorities. For Transport Canada, led two-year investigation of lease and rental arrangements as negotiated at the time of transfer of federal airports to long-term leases held by Local Airport Authorities.

Investment Appraisal of Federal Express Sorting Plant at Toronto International Airport. For Federal Express, assessed the prospective economic and financial rate of return on a prospective sorting plant expansion at Toronto International Airport.

Air Freight Bilateral Agreement between Canada and the United States. For Federal Express, the U.S. Department of State and the Canadian Department of Transportation, developed and assessed the economic effects of “3rd Freedom” and “5th Freedom” extensions of operating rights at Canadian and U.S. airports for American Express, UPS, Purolator and other air courier operators.

Transportation and Infrastructure

Buildings and Structures

Regulatory Impact Analysis of Building and Construction Codes under the Americans with Disabilities Act. For the United States Department of Justice, conducted the Regulatory Impact Analysis of new regulations governing architectural design requirements in private and public buildings under the Americans with Disabilities Act

Water Infrastructure Cost-Risk Analysis. For the New York City Department of Environmental Protection, Dr. Lewis’ staff has conducted Cost-Risk Assessments of more than \$3 billion in planned capital projects

Station Redevelopment Cost-Risk Analysis. For the United States Federal Transit Administration, Dr. Lewis’ staff has conducted Cost-Risk Assessments for more than \$2 billion in planned capital projects under the Lower Manhattan Recovery Program

Water Infrastructure Cost-Risk Analysis. For the Metropolitan Water District of Sacramento, Dr. Lewis’ staff conducted a Cost-Risk Assessment of proposed Isolated Facility for water delivery to Southern California; project valued at more than \$3.5 billion

Public-Private Partnerships

Deputy Fairness Commissioner for Convention Center Re-Development. For the City of Ottawa, served as Deputy Fairness Commissioner with regard to a Public-Private Partnership for the redevelopment of a 200,000 square-foot convention center in downtown Ottawa, Ontario

Third-Party Risk Analysis of Canadian Gun Registry. For the federal Department of Justice, conducted a comprehensive risk analysis to reconcile competing estimates of gun registry costs and basis for deal structure with private vendor.

Third-Party Business Case and Risk Analysis for Business Process Redesign of a Social Services Department. For the Ontario Ministry of Community and Social Services, performed third-party benefits measurement and risk assessment in relation to a \$600 million contract between the Department and Accenture Corporation. Using econometric and probabilistic risk assessment methods, tracked the performance of the business case. Also measured the realization of productivity and related benefits as a basis for determining vendor payments under the partnering agreement for a period of seven years (on-going).

Business Case and Risk Assessment of Public-Private Partnership Regarding Integrated Justice Technology. For Departments of Prisons, Attorney General and Police Service, developed the business case and business model for implementing a province wide integrated information management system, including digital audio and e-filing or court records for instant use in police and correctional services activity. Acted as third-party in a public-private partnership between Unisys, EDS and the Ontario government.

Business Case Model for Intensive Forest Management Public-Private Partnerships. For the Ontario Ministry of Natural Resources, developed a business case framework and decision support model for Intensive Forest Management on publicly-owned lands. To support the development of public-private partnerships, the business case model anticipates both private industry and multiple government stakeholders in considering various costs, benefits and risks of intensified forest and environmental management.

Third-Party Risk Analysis of Polish Motorway Development Program. For the government of Poland, Lewis is the appointed third-party financial, economic and forecasting advisor with regard to the business cases for public-private partnerships related to the A2 and A4 toll/vignette motorway construction program.

Third-Party Risk Analysis of Chilean Route 5 Toll Road Workout. For MBIA Insurance Corporation, Lewis is the appointed third-party financial, economic and forecasting advisor in relation to the Route 5 financial restructuring.

Third-Party Risk Analysis of Santiago Airport Financial Restructuring. For MBIA Insurance Corporation, Lewis is the appointed third-party financial, economic and forecasting advisor in relation to the financial restructuring of Santiago Airport public-private partnership for airside and groundside development.

Third-Party Risk Analysis of “ReTrac” Project Tax Revenue Forecasts. For the Transportation Infrastructure Finance and Innovation Act (TIFIA) Joint Program Office, conducted a comprehensive third-party risk analysis of all tax revenue forecasts underlying the proposed financial model and financing structure.

Third-Party Risk Analysis of the Central Texas Turnpike Toll Road Financing. For the Transportation Infrastructure Finance and Innovation Act (TIFIA) Joint Program Office, conducted a comprehensive third-party risk analysis of all traffic, revenue and

financial forecasts, including economic risk, demographic risk and value of time forecasting risk.

Public-Private Partnership for \$150 million Investment in Business Process Reengineering of Social Benefits Administration and Management. For the Canadian Department of Human Resources, developed the public-private partnership business model and risk management protocol for a \$150 million investment to modernize the administration of social entitlements and disbursements. As the project's third-party risk management and business case monitor, monitored the investment, implemented by EDS Corporation, to ensure that projected returns on investment were realized and that risks and rewards were shared appropriately by the government and the private partner.

Health Management Outsourcing. For the Alberta Department of Public Health, assessment of the efficiency and effectiveness of outsourcing contracts between the department and IBM Corporation. Assisted the department in assessing weaknesses in the current relationship, determining the value proposition achieved to-date and developing a strategy for renewal or competition for subsequent ten year period.

Regulatory Impact Analysis of the Americans with Disabilities Act. For the U.S. Congress and the U.S. Department of Transportation developed the Regulatory Impact Analysis for the 1986 Section 504 regulations and the 1991 Americans with Disabilities Act Regulations. The analysis was accepted by the Office of Management and Budget and the Department of Justice and has been used as expert testimony in judicial proceedings.

Forecasting Highway Tax and User Revenues. For the state of Arizona's Department of Transportation, Lewis has acted as third-party risk analyst for all official forecasts of local and statewide highway-related tax and user-fee revenues since 1990. Lewis develops and updates econometric models for all sectors of the economy, conducts risk analysis, supports the Department in developing prospectuses for revenue-based bond issues and provides the Department's forecasts used in obtaining bond insurance. Accuracy is within one percentage point of actual outcomes for all 1-5 year forecasts since 1990.

Forecasting Right-of-Way and Highway Construction Costs for the Phoenix Metropolitan Area Expressway Development Program. For the Arizona Department of Transportation, Lewis acts as third-party risk analyst with regard to right-of-way land acquisition costs and highway construction outlays on a year by year basis for the Phoenix area's \$20 billion, 20-year expressway building program. Lewis has supported the land acquisition and construction budget process since 1990.

Information Technology

Business Case Analysis for Innovative "Benefits-Driven Procurement" of Large-Scale Information Technology Re-Engineering Projects. For the Canadian federal Department of Public Works and Government Services, developed a business case and risk evaluation template for use throughout the federal government to make IT procurements under the

public-private partnership model. Benefit-driven procurement (BDP) is an innovative new purchasing approach whereby vendors are assessed, and contracts developed, on the basis of the proposed business case and risk assessment.

Business Model for Process Reengineering of Personnel and Corporate Financial Office Systems. For the Department of Canadian Heritage, developed the business case and business model for reconfiguring core departmental IT/IM infrastructure systems, including finance, human resources and the management of executive information. Options evaluated government-wide “shared” systems, the addition of ancillary administrative systems, including a comparison of SAP versus PeopleSoft business planning and document management tools.

Sales and Management Technology for the Canadian Postal Service. For the Canadian Postal Service, performed conducted a business case and risk analysis of a proposed investment in the Sales Enhancement Analysis System, SEAS. SEAS is a data repository making atomistic data for all customers accessible to sales personnel in real time through an “electronic briefcase”. Also evaluated the business case and risks associated with a comprehensive re-engineering of the Human resources Management and Benefits Administration System (HRMBAS).

Lights-Out Sorting and Distribution Technology in the U.S. Postal Service. For the U.S. Postal Service, Lewis acted as third-party business case analyst for \$1.2 billion public-private partnership contract to automate major sorting facilities in South Florida.

Development of a Systems-Architecture for Intelligent Transportation. As part of a team lead by Hughes Aircraft Company, Lewis established the evaluation framework for an Intelligent Vehicle Highway System (IVHS) investment program for Detroit, Michigan.

Energy, Environment and Natural Resources

Risk Analysis for Plant Capacity Margins. While in service to the electricity supply industry of England and Wales, Dr. Lewis used risk analysis and cost-benefit analysis to establish security of supply standards for power generation in light of known equipment failure rates

Electricity Demand Forecasting. While in service to the electricity supply industry of England and Wales, developed econometric models and forecasts of nationwide power and energy demand in three sectors, domestic, commercial and industrial

Assessment of National Energy Balances. While in service to the electricity supply industry of England and Wales, modelled national supply and demand balances in relation to U.K oil and gas reserves.

Business Case for Alternative Service Delivery Models for the Provincial Fish Aquaculture System. For the Ontario Department of Natural Resources, developed new

service delivery approaches and public sector management modalities for the government's fish culture plants and delivery systems

Business Case for Alternative Service Delivery Models of Provincial Rabies Protection Program. For the Ontario Department of Natural Resources, developed new service delivery approaches and public sector management modalities for the government's rabies protection programs

Cost Allocation and Recovery of Forest Fire Protection Services. For the U.S. and Canadian federal governments, developed detailed cost allocation models to allocate cost responsibility for forest fires among user groups, including the timber industry, railroads, recreational users and residents (including cottagers). Analysis used in arbitrating 2001 softwood lumber trade dispute

Regulatory Impact Analysis of Revised Environmental Assessment Review Process. For Canada's Department of the Environment (Environment Canada), conducted a Negotiated Regulatory Impact Analysis and Cost-Benefit Analysis of the revised Environmental Assessment Review Process. Analysis included both public and private outcomes. Results published in the Canada Gazette

Analysis of Incentive Program to Promote Consumer Acquisition of Vehicles Meeting Regulatory Impact Analysis of Revised Environmental Assessment Review Process. For Canada's Department of the Environment (Environment Canada), conducted a Negotiated Regulatory Impact Analysis and Cost-Benefit Analysis of the revised Environmental Assessment Review Process. Analysis included both public and private outcomes. Results published in the Canada Gazette

Analysis of Incentive Program to Promote Consumer Acquisition of Vehicles Meeting Higher Greenhouse Gas Emission Standards. For Canada's Department of Natural Resources, developed a microeconomic and environmental model and Cost-Benefit Analysis of prospective surcharges and rebates ("feebates") in the new vehicles (cars and trucks) market

Health Care, Disability and Human Rights

Cost-Benefit Analysis Model for Respiratory Healthcare, For the Public Health Agency of Canada, developed and applied a Cost-Benefit Analysis model for assessing national strategic alternatives for lung health

Business Case for Developing and Marketing Competitive Heart Imaging Agent. For Amersham Medi-Physics Inc., facilitated the corporation's investment and marketing planning decisions regarding the development of "Myoview," a radioisotope for heart imaging with greater life-cycle efficacy and cost competitiveness attributes than competitive imaging agents.

Alternative Service Delivery of Government Fitness Programs. For Health Canada, developed and evaluated alternative methods of program delivery in relation to fitness promotion. Results used in developing a range of joint programs with private, not-for-profit non-governmental agencies.

Evaluation of Small Aircraft Accommodation Regulations Regarding People with Disabilities. For the Canadian Transportation Agency and Transport Canada, *investigated* the cost-benefit of regulating the provision boarding equipment, boarding procedures and interior aircraft layouts for passengers with mobility impairments.

Evaluation of the Intercity Bus Code of Practice for Voluntary Provision of Accessible Services. For the government of Canada, investigated the implementation and awareness of the Intercity Bus Voluntary Code of Practice. Statistical surveys and analysis led to recommendations regarding the need for formal regulations in the area.

For the Metropolitan Toronto Housing Company Ltd., developed a major analysis of lifestyle and lifestyle preferences among residents of all 18 of the company's apartment buildings. The study led to recommended approaches to lifestyle support for elderly residents and residents with disabilities.

Computer Model of Wheelchair Storage Capacity in Automobiles. For General Motors and the Society of Automotive Engineers, developed a computer model to test the wheelchair storage capability of passenger cars and vans. Beta-tested the model in rehabilitation centers throughout North America, including the Good Samaritan Rehabilitation Hospital Driving Program, Phoenix, Arizona.

Continental Database on the Population Demographics of Disability. For the U.S. Urban Mass Transportation Administration and Transport Canada, developed North American database on incidence of transportation-related disability, including forecasting capability for urban and rural disability-related population growth.

Demand, Cost and Productivity Forecasting for Paratransit. An annual forecasting service provided to the cities of New York, Philadelphia, Seattle, Washington D.C., Ottawa, Canada, Los Angeles, Dayton and others.

Evaluation Framework for Assessing Strategic Alternatives for Addressing the Accessibility of Vehicles and Facilities. For the Toronto Transit Commission, examined alternative strategies to serve the transit needs of persons with disabilities. Supported the Toronto Transit Commission in the cost-effectiveness and benefit-cost analysis of a wide range of area-wide strategies for serving the travel needs of people with disabilities. Demand and capacity simulation models were developed and published as part of the Commission's final strategy called "Futures."

Doctrine of Mobility as a Human Right. For the 10th International Congress on Transportation for Elderly and Disabled Persons in Stockholm, Sweden, developed a paper articulating the foundations and principles of a new doctrine of mobility as a human right.

Expert Witness in Human Rights Pleadings. For the Ontario Human Rights Commission, served as Expert Witness in cases against Toronto Transit Commission and Hamilton City Transit Authority in relation to the non-provision of equal service standards for people with disabilities.

For the Fifth International Conference on Transportation for Disabled and Elderly Persons (Stockholm, Sweden - May, 1989), Lewis delivered opening plenary paper entitled “Towards Mobility as a Human Right - A World Perspective”.

For the House of Representatives of the U.S. Congress, coordinated with the Paralyzed Veterans of America, the Coalition of Citizens with Disabilities, Berkeley Independent Living Centre and other national groups to frame legislation for the Surface Transportation Assistance Act setting minimum service standards for urban specialized transportation services.

For the Senate Budget Committee of the United States Congress, analyzed alternative federal approaches to serving the access and travel requirements of disabled persons under alternative civil rights interpretations of Section 504 of the Rehabilitation Act of 1973.

For the City of South Portland, Maine, provided analysis of accessible fixed-route transit and paratransit alternatives.

For the Toronto Metropolitan Transit Commission, provided alternatives analysis of accessible fixed-route, paratransit and combined options. Used the RAP participation process to bring experts and lay public together from Toronto and around North America.

For the Ministry of Transportation, Ontario, developed a ten-year strategic plan of eighteen transportation programs for disabled persons. Conferred on the strategy with disability groups, municipal governments and the Minister of Transport.

For the Municipal Transit Office, Ontario Ministry of Transportation, established paratransit eligibility screening procedures for 70 municipalities in the region.

EXPERIENCE SUMMARY

Mr. Parker is an applied econometrician, strategic planner and energy executive, and with extensive management experience. He has worked in the energy, risk management software, and financial services sectors. His skills include negotiating complex business deals and the planning and start-up of several companies. Mr. Parker has a unique ability to direct others and to build, use, and explain quantitative models. By using useful abstractions from reality he can help people better understand their markets, competitors, pricing, prospects, and internal processes.

PROFESSIONAL QUALIFICATIONS

M.Phil. (Economics), University of Oxford, England (1985)

B.A. (Hons.) (Economics), University of Western Ontario, London (1981)

SELECTED RECENT PROJECTS**Energy**

For Enbridge Solutions Inc., Mr. Parker evaluated an entirely new to the market financial derivatives-based business and hedging strategy. The project included calibrating a theoretical call option pricing model to market quotes, evaluating the cost of the strategy and simulating the risks and rewards. The risk considered included: foreign exchange; interest rate; volatility; basis; NYMEX futures; delta; and other forecasting risks. In addition a business start-up plan was developed and financial forecasts developed.

For Enbridge Solutions Inc., an unregulated energy services firm, performed several economic, risk, and business planning studies for potential new businesses for Enbridge Solutions Inc. for the residential and commercial markets.

For Ontario Wind Power Mr. Parker conducted a risk assessment study.

For Enbridge Solutions Inc., wrote a specification and use case for a Home Energy Carbon Calculator. The purpose of the calculator was to get users to do something about their carbon footprint related to their home energy use and request an Energy audit from Enbridge Solutions Inc. (ESI). A secondary purpose is to get people to reduce carbon footprint by reductions in their (gas) energy use through information and programs offered by Enbridge Gas Distribution (EGD) through its Demand Side Management (DSM) group.

For Barbados Light and Power and Energie Bedriven Suriname Mr. Parker developed short-run, long-run, and seasonal electricity sales forecasts for power plant feasibility studies through Ontario Hydro International and CI Power.

For Enbridge Solutions Inc., Mr. Parker developed a risk assessment of two proposed carbon trading business strategies. HDR contacted several carbon trading companies to get information on the costs and expected revenues for working with ESI (e.g. costs for planning, validation, & registration of credits, costs for monitoring, verification, aggregation, & trading of credits, and price of credits). Based on this information a model of ESI's potential revenue and profit was constructed. Uncertainty in many of the inputs was explicitly modeled using Monte Carlo simulation techniques. The analysis led to a recommended approach for ESI's energy audit program and Mr. Parker led the commercial negotiations with the recommended carbon trading company.

At Consumers Gas Mr. Parker led development and marketing of the ATLAS end-use forecasting model that was sold to several utilities in North America. He presented a paper on ATLAS at the national Demand Side Management (DSM) conference.

For a large energy client, Mr. Parker investigated the issues related to trading carbon credits.

For Enbridge Consumers Gas, Mr. Parker was accountable for overseeing all aspects of Rental Programs (\$500M assets, \$142M revenues, 1.2M customers), Financing Programs (\$100M loans, \$12M revenues, 60 000 customers); Warranty Programs (\$20M revenue, 300 000 customers). Through active management of rental refurbishments; entering the larger commercial energy equipment loan market; actively marketing furnace warranties; and changing the capital structure, achieved a 16% increase (\$14M) in the value of the businesses in 1998 (vs. 11% average increase 1993-1997). Mr. Parker directed the separation (or unbundling) from the regulated utility of: the Water Heater and High Efficient Furnace Rental Program; the Heating Parts Replacement Plan or HIP; and the transfer of the non-utility Merchandise Finance Program ("MFP") to Consumersfirst Ltd., a non-subsiary affiliate. He also advised on the transfer and restructuring of the Merchandise Sales Program and the service operations (Customer Maintenance Programs and Customer Appliance Repair and Diagnostic Service). Consumersfirst (later Enbridge Services) then operated the transferred businesses (net book value of \$167 million) outside of regulation. Businesses were later sold to Direct Energy for \$1 billion.

For Consumers Gas Mr. Parker led the development of regional gas sales forecasting model (CRAFT). The model, was reviewed and approved by industry experts and was used by the Company for gas demand forecasting and was used accepted in regulatory hearings. The model was documented and reviewed in Canadian Natural Gas Demand: Historical Trends, Forecasting Methodologies and Outlook, George Given, Roland George, Megan Valentine, Canadian Energy Research Institute Study No: 67, November 1995 ISBN 1-896091-07-05.

For Ontario Hydro, Mr. Parker prepared macroeconomic, and electricity sales, forecasts. He completed several economic impact studies of electricity demand and supply options.

Mr. Parker has provided testimony before the Ontario Energy Board for Consumers Gas on economic, energy services and gas demand forecast matters and has negotiated the

return on equity and interest costs for utilities. He was part of a team that negotiated a regulated return on equity of, on average, 23 basis points above the cost of capital for the Company, equivalent to \$2 million in net income per year.

For Ontario Hydro, Mr. Parker and one other economist developed “Long-run model for Impact and Simulation Analysis” (LISA) – an economic simulation and forecasting model for the Ontario Economy. This model was used by Ontario Hydro for many years for demographic, economic and energy impact analysis and forecasting.

For Ontario Hydro Mr. Parker co-authored a major air pollution epidemiology study.

For Enbridge Consumers Gas, Mr. Parker was part of six-person team, developing strategic, business, and marketing plans, and bringing to market unregulated retail energy and related services to the residential, commercial and industrial markets. He prepared financial models, budgets, cost allocation, and forecasts. The strategic plan for a new Energy Services division led directly to North American Energy Services businesses being approved by the Board of Directors in B.C., Philadelphia, and Ontario. These plans led to the Consumersfirst business launch to spearhead Enbridge’s entry into unregulated energy services.

For Consumers Gas Mr. Parker was team leader investigating Economic Value Added (EVA) methodology. He valued five strategic business units using EVA. The results of this analysis were used to estimate, and plan for, the impact of de-regulation and unbundling as well as determining the fair value of the Company. Mr. Parker presented the results to several senior executive groups. The recommendations and results were acted on and the business were removed from regulation at a net book value of \$167 million and sold later for \$1 billion.

Risk and Finance

Cost and Schedule Risk for Knik Arm Bridge and Tolling Authority (KABATA). In 2007, Mr. Parker facilitated risk sessions with the client, HDR, and external experts to develop risk matrices. Using the Cost Risk Analysis (CRA) and Risk Analysis Process (RAP Sessions) Mr. Parker and his team developed a model for government approval, hazard materials, earthquake and volcano, right-of-way, and utility relocation risks. By modeling the full probability distributions for all cost and schedule impacts, KABATA was able to redesign an impending P3 RFQ to better allocate risks between the public and private sectors.

Cost and Schedule Risk for Water Supply Facility. For the Municipal Water District of Southern California in 2008, HDR facilitated two large sessions of approximately forty technical experts from the client organization, consultants, and other stakeholders to determine the cost and schedule risk associated with a multi-billion dollar water supply facility in an environmental sensitive area. John Parker and Chris Behr facilitated the workshops.

In May of 2008 HDR Decision Economics was engaged by Alaska Department of Transportation and Public Facilities to perform a Cost-Risk Analysis of risk elements related to the Akutan Airport project. John Parker facilitated the two-day risk analysis sessions and managed the project.

For relevant economics, an economic consulting firm, Mr. Parker conducted research into the impact of economic announcements on financial markets. This research analyzed the impact of economic news, that is, the difference between economic announcements and what was anticipated, on financial markets. The three contributions of this research were, first, the market expectation is derived from economic derivative prices that allow a full distribution for the market expectation to be derived. Economic derivatives data better predict financial market movements and also allow for testing whether there is information in the high moments of the distribution. Second, high frequency financial data allowed for the testing of the optimal window and discovery of how long it takes financial markets to digest and react to news. Finally, by using a U.S. and a European economic announcement and a wide range of financial markets, this research compared announcements to show which are important for which markets.

For Algorithmics, a risk management software company, conducted strategic planning, including writing plans for Board approval. This included identifying strategic partnerships, joint venture and merger and acquisition opportunities and facilitating tactical partnerships in new geographies.

For ING Bank of Canada, modeled the interest rates paid on its savings account in relation to other market rates. The bank funded its entire balance sheet using this product and hence the analysis was critical to understanding the risk profile of the bank. An asymmetric response, error correction model was estimated that allowed for scenarios of the savings rate given market rate scenarios.

For the Globe & Mail, Mr. Parker with one other researcher developed a mutual fund risk-return ranking methodology. The ranking is still used and credited to Algorithmics on the www.globefund.com website and is used in the Globe's Mutual Fund print supplements.

For Algorithmics, published a weekly "Scenario of the Week" article on-line. Several global financial institutions used this as a catalogue of stress test scenarios. The Mark-to-Future scenario catalogue was a collection of 34 scenarios that banks used to discover how their portfolio could weather the most extreme market conditions. The Scenario Catalogue contents were chosen to reflect events or issues from the period April-November 2000 that were relevant to those managing risk. All scenarios are generated so that they could be applied to current market data. The scenario covered a wide range of over a hundred risk factors.

Other

At Oxford University, Mr. Parker was research assistant to Professor David Hendry, where he estimated and tested a model of house price forecasts that was later used by the British Government for policy analysis. The model used non-linear "chaos theory" to predict price changes. The work was published in "Econometric Modelling of House Prices in the United Kingdom" by David F. Hendry in *Econometrics and Quantitative Economics*, Hendry, David F., and Wallis, Kenneth F., Blackwell, 1984.

For the Bank of Canada, Mr. Parker was part of a small team responsible for developing, estimating, and simulating the Bank's Small Annual Macroeconomic (SAM) forecasting model. Mr. Parker was responsible for data documentation, model estimation and simulation. The work was published as *The Structure of the Small Annual Model*, Bank of Canada Technical Report No. 40, David E. Rose and Jack G. Selody, May 1985.

EMPLOYMENT HISTORY

Principal Economist, HDR|HLB Decision Economics Inc. 2007 – present

Partner, relevant economics 2004-2006

Director, Strategy & Business Development, Algorithmics Inc. 2004 - 2006

Director, Marketing Strategy & Planning, Product Marketing Algorithmics Inc. 2002 - 2004

Manager, Scenario Solutions, Research Department Algorithmics Inc. 2000 – 2002

Scenario Engineer, Financial Engineering Department Algorithmics Inc. 1999 - 2000

Group Manager, Financial Products & Services Enbridge Consumers Gas, 1997 - 1999

Manager, Business Development, Enbridge Consumers Gas, 1996 - 1997

Manager, (Chief Economist), Economic Studies Enbridge Consumers Gas, 1994 - 1996

Senior Economist, Economic Studies, Enbridge Consumers Gas, 1989 - 1994

Economist, Economics & Forecasts Division, Ontario Hydro, 1986 - 1989

Research Assistant to Professor David Hendry, Nuffield College, Oxford University, 1983 - 1985

Research Assistant, Research Department, Bank of Canada, 1981 - 1983

Lecturer, Ryerson Polytechnical Institute (Now Ryerson University), 1989 - 1991

Consultant, 1988 – 1989

PUBLICATIONS

Energy Publications

“Determining the Right Shade of Green for a Specific Community”, John Parker & John Williams in Sustainability: The Journal of Record, Vol. 1 No. 2, April 2008

“Modelling Gas Demand Using Co-integration” with James R. Ireland in ISF 93 - The Thirteenth Annual International Symposium on Forecasting, Pittsburgh, June 10-12 1993.

“Econometric Modelling of Conservation” with Darryl Seal in IAEE Energy Supply/Demand Balances: Options and Costs 12th Annual North American Conference, Ottawa, October 1-3 1990.

“Forecasting in an Era of Demand-Side Management” with Frank Trimmell in Enhancing Electricity’s Value to Society, Volume 1, Proceedings of the Canadian Electrical Association, Toronto, October 22-24 1990.

“An Assessment of Air Pollution Effects on Human Health in Ontario”, with Takis Plagiannakos, Ontario Hydro, 1988 - “has been thoroughly peer-reviewed, but not published and remains one of the major air pollution epidemiology studies in North America”.

“End-Use Modelling” chapter in American Gas Association’s Load Forecast Methods, 1994.

“Bibliography” chapter in American Gas Association’s Load Forecast Methods, 1994.

“Demand Side Management - The Impact on the Forecasting Function” with Pat Owens, Canadian Gas Association Economics, Research, and Statistics Sub-Committee, 1994.

“Modelling Gas Demand Using Co-integration” with James R. Ireland, American Gas Association Forecasting Review Volume 5 March 1996.

“ATLAS: A New Strategic Forecasting Tool” with N. Clay Greene, Craig Carothers, Ahmad Faruqui and Ken Seiden in Proceedings: Delivering Customer Value 7th National Demand-Side Management Conference, June 1995.

“Economic Externalities in DSM” in Energy Studies Review, Volume 7 Number 1 1995.

Consumers Gas Regional Analysis and Forecasting Tool (CRAFT Model)

Long Run Impact and Simulation Analysis Model (Ontario Hydro LISA Model)

“Load Forecast for Barbados”, with Frank Trimnell, C.I. Power Feasibility Study, 1988.

“Load Forecast for Suriname”, C.I. Power Feasibility Study, 1989.

“Wind Turbine Risk Assessment for Enbridge Ontario Wind Power” relevant economics consulting study, August 2006.

“Business Case for Commercial and Industrial Energy Management for Enbridge Solutions Inc.” relevant economics consulting study, December 2006.

Risk and Finance

“The Impact of Economic News on Financial Markets”, April 2007

“How Bad is Bad News; How Good is Good News?” with CoCo Huirong Li, January 2002

“Models for Equity Indices”, Algorithmics Research Paper Series, November 30, 2001

“Exchange Rate Forecasting” with Mark Parker in Journal of Business Forecasting Volume 10, Number 2, Summer 1991.

“Mean Reversion of G-7 Interest Rates - Do interest rates mean revert?” with Joong Hee Huh, October 9, 2001

"Long-Term Simulation Models for Interest Rates" with Anna Kalemanova, Bernd Schmid, of RiskLab Germany, 11 December 2001

“Models for Foreign Exchange Rates” 20 July 2001

“Scenario Generation Using a Generalized Multivariate-t Distribution” February 2001

“Building a bridge between historical simulation and model-based simulation” with CoCo Li, July 2001

“Filtered Historical Simulation” with CoCo Li, September 2001

“Learning and the Convergence to Rational Expectations” Thesis for the degree of Master of Philosophy, University of Oxford 1985.

“Modeling Saving Account Rate Dynamics: the Case of ING Canada” with Doug Gardner, 23 December 2003

“Fed. Announcements” March 2000 - Is knowledge of an impending policy announcement of the Fed. useful in estimating market volatility and therefore, risk?

“Fat-Tailed Distributions” September 2000 – with Hao Wang

“Economic Forecasts as Scenarios” – December 2000

“Microsoft Volatility around Earnings Releases” March/June, 2001 – with Joong Hee Huh

“Bank Take-Over Scenarios” September 2001 - with François Villeneuve

Finance - Web and Newspaper Publications

“Scenarios are the Language of Risk” in Algo Daily Times, April 16, 2002.

E-Risk Interview May 29th 2001