

## Jeffrey Ian Bernstein (1950–2009)

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Jeffrey Ian Bernstein graduated from Sir George Williams University in Montréal in 1971 and earned his Ph.D. from the University of Western Ontario in 1974. His thesis supervisor was James Melvin, a well-known trade theorist.

After teaching at the University of Guelph, Concordia University and McGill University, Jeff spent most of his academic career in the Department of Economics at Carleton University, which he joined as an Associate Professor in 1981. He was promoted to Full Professor in 1986 and was awarded the honorary title of Chancellor's Professor in 2002. In 2006, Jeff moved to join the Department of Economics at Florida International University where he played a key role in its Ph.D. program.

During his time at Carleton, Jeff established himself as a leading researcher in the field of industrial economics. He was widely respected for the technical competence of his numerous papers, which appeared in the leading journals of the profession and as contributed book chapters. Jeff was demanding of his students, set high standards, and insisted upon rigorous performance. He placed similar demands on himself.

Jeff served Carleton well in several capacities over the years, including Supervisor of M.A. Studies in Economics from 1983 to 1987, Director of the Centre for Quantitative Social Sciences from 1988 to 1991, and head of the Federal Government – Economics Intern program, which he established in 1989 and managed until his departure in 2006. He also played an important role in the faculty hiring process and in the recent renewal of the undergraduate Economics curriculum.

Jeff was appointed as a Research Associate of the National Bureau of Economic Research (NBER) Productivity program in 1989 and was also active in the Conference on Research in Income and Wealth (CRIW). His research focused on the modelling and measurement of productivity in a wide range of industries, with a particular focus on the role of research and development and on regulated industries such as insurance and telecommunications. Jeff published nearly 70 articles and was regularly sought out as an expert witness in regulatory matters. At the time of his death, he was listed by RePEc as being in the top 5% of authors by number of works, number of pages of

journal publication weighted by authors, and several other criteria. His work has been cited extensively.

Jeff had fruitful collaborations with a number of other scholars including Douglas Fisher, Theofanis P. Mamuneas, Pierre Mohnen, M. Ishaq Nadiri, and David E.M. Sappington. He contributed an important paper, “Total Factor Productivity Growth in the Canadian Life Insurance Industry: 1979–1989,” to a 1999 issue of the *Canadian Journal of Economics* for which Diewert and Nakamura were guest editors (together with Andrew Sharpe).

In 2004, when Diewert and Nakamura organized a major conference in Vancouver, Jeff contributed another outstanding paper co-authored with Theofanis P. Mamuneas: “R&D Depreciation, Stocks, User Costs, and Productivity Growth for U.S. Knowledge Intensive Industries,” which was eventually published (in 2006) in *Structural Change and Economic Dynamics*. Alice’s daughter and Erwin’s student, Emi Nakamura, was the discussant for this paper, which brought together two important strands of Jeff’s research: his work on the dynamics of production theory and his work on estimating rates of return to R&D. A notable feature of this paper is that Bernstein and Mamuneas allowed for technical change both from R&D investments as well as from other exogenous sources. As a result, their estimates of the return to R&D investments did not suffer from an upward bias due to the usual neglect of these other sources of technical progress. Another aspect of R&D is that producers of knowledge-generating activity cannot completely appropriate all of the benefits from this activity. These benefits spill over to other producers and individuals within and across nations.

Jeff was one of the first economists to econometrically estimate the extent and magnitude of R&D “spillovers.” He published many first-rate papers in such journals as the *Review of Economic Studies*, the *Review of Economics and Statistics*, the *Journal of Industrial Economics*, and the *Canadian Journal of Economics* showing that R&D spillovers exist throughout the world’s economies.

Regulated industries throughout the world have evolved from rate of return regulation to price cap regulation since the latter provides more effective incentives for firms to operate efficiently. Price cap regulation is often called “CPI–X” regulation since average prices for regulated services are adjusted for consumer price inflation; that is, CPI less an offset or “X factor.” Prior to Jeff’s research, the X factor was typically set on an ad-hoc basis in regulatory proceedings. Jeff and his co-author, David Sappington, developed the now-standard formula to calculate the X factor in their paper titled “Setting the X Factor in Price Cap Regulation Plans,” which appeared as the lead article in the *Journal of Regulatory Economics* in 1999. This formula is now used and cited throughout the world in regulatory proceedings in telecommunications, electricity, oil, and natural gas pipeline industries.

Jeff was a talented amateur drummer. Jeff and his wife loved to dance and they loved fine dining. We and other fellow economists enjoyed splendid evenings as their guests over the years at various Ottawa restaurants. They were extraordinary hosts to friends and business visitors.

Jeff passed away on July 22, 2009, after a valiant battle with leukemia. He was 59 years old. His wife, Lidia Bernstein (nee Baranski) wrote of Jeff: “The battles that you won usurp the war you could not win,” and those of us who knew him know the deep

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truth of these words with respect to all that Jeff devoted himself to during the course of his life. He is survived by his wife of 38 years, Lidia, and their daughter Jasmine.

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