

Lewis Duane Chapman

September 3, 1940 — July 29, 2007

Duane Chapman, Professor of Resource Economics in the Department of Applied Economics and Management, died unexpectedly after a short illness in July 2007 at age 66. He joined the Cornell faculty in 1972 after spending three years as a Research Scientist at the Oak Ridge National Laboratory. Duane received a Ph.D. degree in Agricultural Economics in 1969 from the University of California at Berkeley where his choice of a topic for research was indicative of his future career. While most of his fellow students worked on conventional problems in agricultural production and marketing, Duane studied the economic viability of using nuclear power to desalinate water. This research led to his first appointment at Oak Ridge.

At Cornell, Duane's research focused on energy and the environment, including nuclear energy, electricity market restructuring, world oil prices and international security, renewable energy policy, and climate change and energy use. He also worked on forestry policy and economic development and environmental quality. His research topics were sometimes well outside the mainstream of current academic fashions, and his conclusions were often at odds with the views of powerful economic interests. Nevertheless, his conclusions almost always proved to be correct, and in most cases, his policy recommendations were adopted after years of delay. When researchers at Cornell first identified the environmental damage caused by acid rain in the 1970s, Duane showed that it was both technically and economically feasible to install scrubbers to reduce sulfur emissions from coal plants, like Cayuga Station, but these emission reductions were not mandated for power plants in Federal legislation until 2000, over 20 years later.

Duane's research at Oak Ridge demonstrated that nuclear desalination was not economically viable. This conclusion was in conflict with the leadership of the Atomic Energy Commission, and this disagreement was partly responsible for Duane's move to Cornell. His early research at Cornell showed that Federal plans to expand nuclear power as a step towards energy independence, in response to the oil embargo in 1973, were based on unrealistically high forecasts of the demand for electricity. His well-researched opposition to the licensing of new nuclear power plants was an important reason why only two such plants were built in New York State instead of the seven that had been planned. As a result, New York State was able to limit the substantial financial costs of overbuilding experienced in other states like Washington.

This work provided a preview of Duane's academic career. He was only interested in issues with substantial economic consequences, and on occasion, his results angered people who stood to lose large amounts of money.

Moreover, he was committed to communicating his insights beyond academic forums. He wrote opinion editorials for the *Ithaca Journal* and presented his research to numerous groups of citizens. In the 1980s, Duane visited the Mescalero Indian Nation in New Mexico where he spoke about the pros and cons of storing nuclear waste on their reservation. The result was a contentious referendum in which a proposal to store the waste on the reservation was first turned down and then reversed. In the interim, Mescalero Nation leaders sent letters to Cornell's President, Frank Rhodes, deploring Duane's "interference" in sovereign matters and calling for his dismissal. Such reactions to Duane's research were not unusual, but his conclusion, that nuclear waste should be stored on site, will likely prove to be correct.

The conclusions from Duane's research were based on empirical reality rather than on a blind belief in "invisible hands" and the other arguments used by mainstream economists. For example, when the electric utility industry argued that the installation of scrubbers on coal plants would cause major disruptions in supply, Duane brought a plant manager from Kentucky to testify before the Federal Power Commission that his coal plant worked perfectly well with a scrubber. More recently, Duane was skeptical about the claims that deregulating the electric utility industry would benefit the public. He demonstrated that suppliers could use perfectly legal means of collusion to manipulate prices. These results did not make him popular with the advocates of deregulation.

Duane traveled to many different countries on professional projects for the World Bank and US AID to study energy and environmental problems. These projects included assessing levels of pollution in Siberia and Central Europe following the collapse of the Soviet Union, and more recently, evaluating energy policy in Iran. He was also interested in the economic and political changes occurring in Southern Africa. This interest probably stems from his active involvement in the civil rights movement during his undergraduate days at Michigan State University in the 1960s. In 1991, Duane spent a sabbatical leave at the Universities of Zimbabwe and Natal as a Fulbright Fellow studying the development of the mining industry in Southern Africa.

His recent work on world oil prices and international security received attention in academic, military, and policy circles. He was invited by the U.S. Army War College, the U.S. Air Force Academy, and the National Security Administration to present his research on oil. Duane's forecasts of future oil consumption and oil prices were quite different from the popular view of most analysts who believed that oil consumption would peak in the near future, but once again, Duane's results will probably be a more accurate guide for future energy policy.

Duane was the author of two books (*Environmental Economics: Theory, Application, and Policy*, Addison, Wesley, 2000 and *Energy Resources and Energy Corporations*, Cornell University Press, 1983), more than 50 journal articles,

16 book chapters, and well over 100 published essays, monographs, and hearing testimony. In 2007, he received the Editor's Choice Award from the Western Economic Association International for a paper that was published in *Contemporary Economic Policy* in October 2006.

A popular advisor of graduate students, many of his publications were co-authored with his students. He supervised 16 Ph.D. dissertations and more than 25 Master's theses. His students were struck by his belief in their academic abilities, and he often played the role of morale booster and friend. He transmitted his penchant for writing about policy issues by pushing his students to think about the bigger policy context, no matter how detailed or technical the discussion. Even before a student would start writing a paper, Duane would want to know how it would advance an ongoing policy debate. Not surprisingly, he attracted non-traditional graduate students to applied economics, including former Peace Corp volunteers, a forest ranger, a military security officer, and students who initially questioned the applicability of economic analysis in realistic but complex settings. Many of these former students have established successful careers, and their work represents the most enduring component of Duane's legacy.

Although a rather quiet, diffident man, Duane was an active member of the Newfield (NY) Democratic Party and the Newfield Lions Club, and he was Vice President of Honest Insight. An avid outdoorsman, he camped in Montana, the outback of Australia and the high Sierra in California. He chose to live the last two decades of his life on 165 acres of wooded lands in Newfield. He incorporated the principles of solar passive architecture in the design of his house and heated it with a wood burning furnace and fireplace. Sitting on his porch, he could regularly hear coyotes and even encounter an occasional black bear. He was proud of the hiking trails and private campsite on his property, which he maintained with the help of a few friends. Winter camping was his passion, and it was not unusual for him to camp outdoors in subzero temperatures. He often invited graduate students for barbeques and hikes on his property, weather notwithstanding.

In June 2007, Duane was diagnosed with a rare form of non-Hodgkins lymphoma. After nearly a month of excellent care at the Strong Memorial Hospital in Rochester, he returned home on July 28 but passed away in his sleep that night. A celebration of his life was held on September 15, 2007, at the Anabel Taylor Chapel on the Cornell campus. It was attended by nearly 200 people, including former graduate students who traveled to Ithaca from across the United States and Canada. Following the Memorial Service, a small group of friends and former students hiked down to the campsite on the Chapman property in Newfield where they spent a few hours around a campfire exchanging stories about Duane and the "good old days."

Duane was predeceased by his parents, Louis and Alice Fullerton Chapman, and by his two brothers, Bruce and Allan. The surviving members of his family are his two daughters, Erin and Amy Chapman, and their mother, Mary Chapman; many cousins and nieces; his loving partner, Alice Brody and her daughter, Melissa; and many former students, colleagues and friends who were all part of Duane's extended family. Cornell has lost a researcher who searched diligently for the truth and was willing to stand his ground and defend the public's interests whenever his results were in conflict with the interests of the powerful.

Timothy D. Mount, Chairperson; Neha Khanna, William G. Tomek