

Rachel Dardis: An Appreciation

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Rachel Dardis was one of the first persons from Ireland to earn a PhD in economics from a university in the United States and almost certainly the first woman to do so. She had a very successful career in teaching and research at Cornell University and the University of Maryland. Her research played an important role in ensuring that cost-benefit analysis was applied rigorously to many important consumer policy issues in the 1980s and 1990s.

Rachel was born in Kilkenny on May 21, 1928. She studied home economics at St. Mary's College of Domestic Science, better known later as DIT Cathal Brugha Street. Following graduation, she taught home economics in Ireland for eight years. She became disillusioned with preparing nutritious recipes for those on a budget in this capacity, citing Oscar Wilde: "The only thing that can console one for being poor is extravagance". With her sister, she spent two years studying dressmaking at Barrett Street Technical School in London and Ecole Guerre-Lavigne in Paris (now ESMOD International Fashion University) before moving to the United States.

Following a period working in the executive training programme at the luxury department store B. Altman and Company in Manhattan, Rachel enrolled as a graduate student in the University of Minnesota and graduated with a M.S. degree in Textiles in 1963. She then enrolled as a graduate student in the Department of

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Economics at the University of Minnesota and completed a PhD in economics in 1965. Her main advisor was Professor Edward Coen.¹ She also worked closely with Professor Elmer Learn in the Department of Agricultural Economics. Rachel's research was supported by a United States Department of Agriculture (USDA) Research Grant that Professor Learn had received. The title of her thesis was "The Welfare Cost of Agricultural Protection". Rachel recalled that she knew her oral exam was going smoothly after she provided the answer for one professor before he had finished formulating his question. Rachel and Professor Learn submitted a report to the USDA in 1967. In addition to her thesis, Rachel took many courses from both the Department of Economics and the Department of Agricultural Economics while she was a graduate student. She later received a prestigious Distinguished Alumni award from the Department of Agricultural Economics (since renamed as the Department of Applied Economics.)

By the late 1950s, the Department of Economics at the University of Minnesota had become one of the leading economics departments in the United States, a position that it has retained to this day. The two leading lights during the time that Rachel studied there were Walter Heller (Chair, Council of Economic Advisors, 1961-1964) and Leonid Hurwicz (Nobel Laureate in Economic Science, 2007). Younger faculty in the early 1960s who went on to have very prominent careers included Anne Krueger, John Chipman, and Martin Bronfenbrenner. Rachel's PhD committee included Professor Oswald Brownlee from the Department of Economics as well as Professors Coen and Learn.

To leave a secure teaching job in her late 20s in pursuit of her academic interests demanded no little courage. To switch focus from textiles in her Master's degree to a PhD programme in economics in one of the best economics departments in the US was an equally brave step.

Following her graduation in 1965, Rachel began her academic career as an Assistant Professor in the Department of Textiles and Clothing at Cornell University. A course calendar for the 1966-67 academic year lists her as teaching two courses in the economics of textiles as well as a course in the marketing of textiles. She was promoted to Associate Professor at Cornell in 1969. She joined the Department of Textiles and Consumer Economics at the University of Maryland in 1970 and spent the rest of her career there. The Department of Textiles and Consumer Economics was abolished in 1992 at which time Rachel moved to the Department of Economics at the University of Maryland. She retired in 1996. Following her retirement, Rachel was named Professor Emerita in the Department of Economics.

Rachel's publication record in economics is an extensive one. She began with two single-authored papers based on her PhD thesis. "Intermediate Goods and the Gain from Trade" was published in 1967 in *The Review of Economics and Statistics*, then as now one of the leading journals in economics. Rachel presented a partial equilibrium model of the impact of a tariff on an intermediate good. In the second half

¹ Edward Coen's sons are the well-known film makers Joel and Ethan.

of the paper, the model was applied to selected livestock products and feed grains for West Germany.

A second paper from her PhD, “The Welfare Cost of Grain Protection in the United Kingdom”, was published in the *Journal of Farm Economics*, also in 1967. The paper was subsequently regarded as one of the key papers in developing techniques for estimating the deadweight costs of particular agriculture protection policies. She estimated supply elasticities for grains using a number of econometric models and calculated that the resource cost of the protection afforded the grain industry in the UK in the late 1950s was between 3 and 10 per cent.

She published a number of other papers on the efficiency costs of agricultural protection at this stage of her career including “The Welfare Cost of Alternative Methods of Protecting Raw Wool in the United States” in the *American Journal of Agricultural Economics* in 1969. She also published a paper on the use of fixed coefficients in production in the same journal in 1970.

While on the faculty at Cornell she began to focus more of her research on textiles and consumer economics and published extensively in these areas throughout the rest of her career. Her early publications in consumer economics focused on consumer behaviour. In the second half of the 1970s she undertook extensive research in the costs and benefits of various regulations on consumer products, particularly those designed to improve safety. These regulations were intensely debated at the time with well-known cases such as the Pinto and safety issues of clothing due to flammability garnering a lot of attention in the media and in Congress.

Rachel wrote papers that explored the general costs and benefits of consumer regulation as well as papers that focused on specific examples of proposed regulations such as the issue of flammability standards. In 1976, Rachel was appointed as a consumer representative to the National Advisory Committee for the Flammable Fabrics Act. She published a cost-benefit analysis of flammability standards in the *American Journal of Agricultural Economics* in 1978.

A critical feature in the estimation of costs and benefits of safety standards is what monetary value to place on a person’s life. One method for estimating this value is to look at how much people were willing to pay for products that would reduce their risk of injury and/or death. Rachel published one of the first papers to use this method, “The Value of a Life: New Evidence from the Marketplace” in the *American Economic Review* in 1980. This paper used data on fire alarms to estimate the value of life. It has been cited over 200 times by many leading forensic and health economists. She revisited the topic in a 1981 paper, “A Critical Evaluation of Current Approaches to Life Valuation in Cost/Benefit Analysis”, in *The Journal of Consumer Affairs*. She continued to apply cost benefit analysis to important regulation issues such as seat belts, motorcycle helmets and child restraints in various papers published in the 1980s and 1990s. These papers are written very clearly and would make excellent case studies in cost benefit and public policy courses.

The mid-1980s saw a return to her earlier interests in the costs of trade restrictions with a series of papers estimating the costs of automobile quotas and the sugar programme. She also had an interest in health economics and published a paper on the cost effectiveness analysis of end-stage renal disease treatments in 1987. Many of her papers in the later stages of her career were concerned with economic analysis of the textile industry and of expenditure patterns in the leisure industry. By the time Rachel retired, she had published over 50 papers in peer-reviewed journals as well as many reports for various branches of the US federal government.

Rachel enjoyed a long retirement in South Carolina, where she maintained her lifelong interest in golf, being also fond of many well-known courses in Ireland and Scotland. With a friend, she left an (as yet) unpublished pseudonymous manuscript, "How to Be a Lady Golfer", providing humorous advice for what was, for much of her time on the course, considered to be a male pursuit. She remained in close contact with family in Ireland and was a favorite of all, being a source of great support, encouragement and practical advice to them. She died on February 23, 2021 and is buried in Deansgrange Cemetery.

Selected Publications of Rachel Dardis²

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² A full list of Rachel's publications is available from the corresponding author.