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1916–2003

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*A Biographical Memoir by*  
VERNON W. RUTTAN, JAMES J. HECKMAN,  
AND G. EDWARD SCHUH

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*July 10, 1916–April 13, 2003*

BY VERNON W. RUTTAN, JAMES J. HECKMAN, AND  
G. EDWARD SCHUH

**D**. GALE JOHNSON was a scholar of exceptional breadth who made original and important contributions to economics and to public policy. In his early work he contributed to our knowledge of the sources of instability in national and international commodity markets. In his later work he addressed the sources and consequences of the failure of socialized agriculture in the former Soviet Union and in China.

Gale was born on July 10, 1916. His parents, Albert and Myra, operated a farm near Vinton, Iowa. He attended grade school at a one-room country school near his parents' farm and high school in the town of Vinton. His family experienced the effects of the instability in agricultural prices and income that characterized the post-World War I era: the boom of the 1920s and the Great Depression of the 1930s. Gale received his undergraduate degree from Iowa State College in 1938. He married Helen Wallace on August 10, 1938. They had two children, David Wallace and Kay Ann. He received an M.S degree from the University of Wisconsin in 1939 and a Ph.D. degree from Iowa State College in 1945. His graduate study also included two years at the University of Chicago in 1939-1941.

Gale Johnson's interest in agricultural economics began when he was still in high school, when he participated in an agricultural policy debate contest sponsored by the Future Farmers of America. In preparation for the debate he wrote to Professor Theodore W. Schultz at Iowa State College asking about resource materials. Schultz (who later became the chairman of the Economics Department at the University of Chicago, a member of the National Academy of Sciences, and a Nobel Prize laureate) responded by sending him two books and an extended letter. Alan Klein, then president of the Iowa Farm Bureau, was so impressed with his presentation in the debates that he invited Gale to accompany him and participate in debates on agricultural policy at a series of meetings through Iowa.

Gale Johnson began his professional career as a research assistant at Iowa State in 1941. He was promoted to assistant professor in 1942, before receiving his Ph.D. He moved to the University of Chicago as assistant professor in 1944. He was promoted to associate professor in 1949 and to the rank of professor in 1952, the youngest ever to have achieved this rank in the Chicago economics department. In 1970 he was appointed the Eliakim Hastings Moore Distinguished Service Professor.

Gale Johnson's transfer from Iowa State University to the University of Chicago was the result of an incident involving academic freedom at Iowa State that became known as the "Iowa Margarine Incident."<sup>1</sup> At the beginning of World War II Iowa State University received a grant from the Rockefeller Foundation to prepare a series of monographs on how to enhance the contribution of agriculture to the war effort. One of these monographs, prepared by O. H. Brownlee, a fellow graduate student, demonstrated that a shift from butter to margarine consumption (made from soybean oil) would result in significant resource savings.

The monograph recommended that the taxes and other restraints on the sale of margarine be removed. Iowa dairy interests demanded that the monograph be revised or withdrawn. Gale had prepared several important, though less controversial, monographs in the same series. When the president of Iowa State acceded to the dairy industry demands, Johnson's mentor Theodore W. Schultz, then chairman of the Iowa State Economics Department, resigned and accepted an appointment as professor in the Economics Department at the University of Chicago. Schultz arranged a research associate appointment for Gale Johnson at the University of Chicago.

Gale Johnson's contributions to the University of Chicago were enormous. He served as associate dean (1957-1960) and dean (1960-1970) of the Division of Social Sciences. He served as chairman of the Economics Department during 1971-1975 and again during 1980-1984. He held the positions of vice-provost and dean of faculties in 1975 and provost during 1976-1980.

While still an assistant professor, Johnson initiated the graduate research workshop in agricultural economics. The workshop met weekly. Graduate students were expected to present reports on the progress and results of their research two or three times while working on their thesis. Faculty and visiting scholars also made presentations at the workshops. The consistent participation of Schultz, Johnson, and other faculty assured vigorous discussion. For over three decades the workshop was an incubator for a series of leading scholars in the field of agricultural and development economics. It served as a model for other workshops in the Chicago Economics Department and at other universities. While chairman of the Economics Department, he substantially strengthened an already leading department by re-

cruiting outstanding scholars into a department that has produced 22 of 49 Nobel laureates in economics.

Gale Johnson has also been of great service to both the academic community and the broader society. He has received numerous honors, including election as a fellow of the American Agricultural Economics Association and the American Academy of Arts and Sciences and to membership in the National Academy of Sciences. He served as consultant and advisor to the Tennessee Valley Authority (1950-1955), the National Advisory Committee on Food and fiber (1965-1967), the National Commission on Population Growth and the American Future (in 1972), and on several National Research Council study committees. He served as editor of the leading interdisciplinary journal in the field of development, *Economic Development and Cultural Change* from 1985 to 2003.

Gale Johnson has made a series of important scientific and professional contributions that have changed the way economists have thought about economic instability and economic development. His initial contributions focused on the impact of price instability on the efficiency of resource allocation and use in agriculture. The importance of this work can only be understood in the context of the unstable economic environment of the 1920s and 1930s and the attempts to develop policies to reduce the effects of price and income instability in agriculture. Johnson's research demonstrated the importance of separating analytically the use of commodity price policy as an effective means of addressing efficiency problems associated with price distortions and instability from the use of price policy to transfer income to farm people to address the poverty problem in U.S. agriculture. His first article on this issue, "Contribution of Price Policy to Income and Resource Problems in Agriculture," published in 1944 had an immediate im-

pact on economic thought concerning post-World War II agricultural policy. His second article on the same topic, "A Price Policy for Agriculture, Consistent with Economic Progress That Will Promote an Adequate and More Stable Income from Farming" (1945), was awarded second prize in an American Agricultural Economics Association competition.

Johnson brought the analysis and the policy implications of his work on price instability together in 1947 in a widely acclaimed book, *Forward Prices for Agriculture*. In this book he showed for the first time how farmers form expectations to guide production decisions, how these expectations contribute to instability in agricultural commodity markets, and how agricultural commodity policies could be designed to address these problems.<sup>2</sup> By the early 1930s Johnson was recognized as one of the most innovative and influential scholars in the field of agricultural policy.

Gale insisted that the income problems of agriculture were rooted in disequilibrium in intersector factor markets. This view was articulated most rigorously in an article, "Nature of the Supply Function for Agricultural Products," published in the *American Economic Review* in 1950, in which he located the failure of agricultural production to adjust to secular growth in agricultural productivity, to instability in commodity prices, and to rigidities in agricultural labor markets.<sup>3</sup> The implications for the reform of land tenure institutions were analyzed in a 1950 study, "Resource Allocation under Share Contracts." This series of studies led Gale Johnson, together with Schultz, to focus major effort on the adjustment problem of Southern agriculture, particularly issues of labor productivity and income distribution. His innovative article on the "Functional Distribution of Income in the United States" (1954) stimulated an important body of theoretical and empirical research.<sup>4</sup>

By the early 1950s Gale was beginning to give considerable attention to international trade in agricultural commodities. This research culminated in an influential book published in 1973, *World Agriculture in Disarray*. The same insights on the behavior of agricultural commodity and factor markets that he had developed in his studies of U.S. agricultural policy provided powerful insight into the effects of government interventions in agricultural commodity markets on distortions in agricultural resource use and commodity trade at the global level.

In a brief 2003 biographical statement appended to his list of publications Johnson summarized the perspective that had emerged from his work in the area of factor and product markets.

Among the major themes I have emphasized are that output prices have little or no effect on the returns to mobile resources engaged in farming (capital and labor), that it is through the factor markets that returns between farming and other sectors of the economy are equalized, that share renting as actually practiced is efficient. The primary effects of subsidy programs for agriculture, such as higher prices, is to increase the returns to and price of land and to expand agricultural output and to induce governments to interfere with international trade.

During the 1980s and 1990s, issues of agricultural development in the centrally planned economies of the Soviet Union and China occupied a good deal of Johnson's attention. His interest in Soviet agriculture was initially stimulated by an extensive visit to the Soviet Union in 1955 as a member of a U.S. agricultural delegation. His interest in China was stimulated by his daughter, Kay Ann Johnson, a China scholar, who took Gale along with his longtime colleague, Theodore W. Schultz, to visit a Chinese village for the first time in 1980. In the 1980s and early 1990s Gale made frequent visits to China. In his visits to both the Soviet Union and China, Gale always insisted on visiting farms



and villages. His experience growing up on an Iowa farm in the 1920s and 1930s gave him a strong empathy with rural people. In one of the many papers and articles that he wrote on agriculture in the centrally planned economies, he insisted that socialized agriculture had been associated with more human suffering than any human institution other than slavery and war.

In the early 1970s, service on the National Commission on Population Growth and the American Future turned Johnson's attention to the relationship between population growth and economic development. In 1987 he edited with Ronald Lee a highly influential book, *Population Growth and Economic Development*. The book, which drew attention to what the editors interpreted as an easing of the pressure of population against the world food supply, was both controversial and influential in shaping the direction of population research and policy. Although not opposed to public support of family planning, Gale was highly uncritical of Chinese government attempts to regulate family size.

In a series of papers beginning in the mid-1990s Johnson was among the first to question the alarmist projections of a food crisis in China during the early twenty-first century. He addressed the food-population issue more broadly in a masterful presidential address to the American Economic Association on "Population, Food and Knowledge" (2000) and again in his last major article, "Globalization: What It Is and Who Benefits" (2002).

A continuing concern of Gale Johnson's research was the role of intersector and international factor and product markets in the process of economic development. He continued to advance our knowledge and to insist on the importance of advancing knowledge, up until the last months of his life. "Not only are people better fed than ever before

but they also acquire their food at the lowest cost in all history. . . . The greatest achievement of the twentieth century is that the majority of the poor people of the world have shared in the improvements in well being made possible by the advancement of knowledge” (2000, pp. 12-13).

IN PREPARING this memoir we benefited from correspondence with Kay Ann Johnson and have drawn on the following articles: G. E. Schuh. A tribute to D. Gale Johnson. In *Papers in Honor of D. Gale Johnson*, eds. J. M. Antle and D. W. Sumner, pp. 30-43. Chicago: University of Chicago Press, 1997. D. M. Hoover and P. R. Johnson. D. Gale Johnson’s contribution to agricultural economics. In *Papers in Honor of D. Gale Johnson*, eds. J. M. Antle and D. A. Sumner, pp. 30-43. Chicago: University of Chicago Press, 1997. J. M. Antle, B. L. Gardner, and D. Sumner. Contributions of D. Gale Johnson to the economics of agriculture. *Economic Development and Cultural Change*, in press.

#### NOTES

1. C. M. Hardin. The Iowa margarine incident. In *Freedom in Agricultural Education*, ed. C. M. Hardin, pp. 119-125. Chicago: University of Chicago Press, 1953.

2. T. E. Petzel. Forward prices, futures prices, and commodity markets. In *Papers in Honor of D. Gale Johnson*, eds. J. M. Antle and D. A. Sumner, pp.44-52. Chicago: University of Chicago Press, 1997

3. In this paper Johnson was the first to employ what is now referred to as an augmented Solow production function in measuring total factor productivity.

4. W. E. Huffman. Labor markets, human capital, and the human agent’s share of production. In *Papers in Honor of D. Gale Johnson*, eds. J. M. Antle and D. A. Sumner, pp. 55-79. Chicago: University of Chicago Press, 1997.

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