NATIONAL ACADEMY OF SCIENCES

GEORGE JOSEPH STIGLER 1911—1991

A Biographical Memoir by MILTON FRIEDMAN

Any opinions expressed in this memoir are those of the author(s) and do not necessarily reflect the views of the National Academy of Sciences.

Biographical Memoir

COPYRIGHT 1999
NATIONAL ACADEMIES PRESS
WASHINGTON D.C.



Photo by Michael P. Weinstein

Jung / Styler

GEORGE JOSEPH STIGLER

January 17, 1911-December 1, 1991

BY MILTON FRIEDMAN

Stigler. For nearly sixty years he was either my closest friend or one of my closest friends. My debt to him, both personal and professional, is beyond measure. Despite deep sadness at his death, like so many others who knew him, I cannot think of him without an inadvertent smile rising to my lips. He was as quick of wit as of mind, and his wit always had a point. His occasional humorous articles—such as "A Sketch of the History of Truth in Teaching" (Stigler, 1973)—have become classics and demonstrate that had he, like an earlier Chicago Ph.D. in economics, Stephen Leacock, chosen to become a professional humorist as well as an economist, he would have achieved no less fame in the one field than in the other.

George Stigler was one of the great economists of the twentieth—or any other—century, with a gift for writing matched among modern economists only by John Maynard Keynes. Intellectual history was his first field of specialization. It remained a lasting love and provided a rich seedbed for his scientific work. A deep understanding of the ideas of the great economists of the past gave him a strong foundation on which to build an analysis of contemporary

issues. Few economists have so consistently and successfully combined economic theory with empirical analysis, or ranged so widely. Stigler regarded economic theory, in the words of Alfred Marshall, as "an engine for the discovery of concrete truth," not as a subject of interest in its own right, a branch of mathematics.

PERSONAL HISTORY

George Stigler was born January 17, 1911, in Renton, Washington, a suburb of Seattle. He was the only child of Joseph and Elizabeth Hungler Stigler, who had separately migrated to the United States at the end of the nineteenth century, his father from Bavaria, his mother from what was then Austria-Hungary. George writes that his "father had been a brewer until prohibition drove that activity underground. Thereafter, he tried a variety of jobs," finally entering the real estate market. "My parents bought rundown places, fixed them up, and sold them. By the time I was sixteen, I had lived in sixteen different places in Seattle. But my parents had a comfortable if nomadic existence" (Stigler, 1988, pp. 9-10).

George went to public schools and then to the University of Washington, all in Seattle, receiving a B.A. in 1931. "An insatiable and utterly indiscriminate reader," he "got lots of good grades" at the University of Washington. He said that, when he graduated from college, he had "no thought of an academic career"; it was the depression and jobs in business were scarce, so he applied for and was awarded a fellowship at Northwestern University for graduate study in the business school, receiving an M.B.A. in 1932 (Stigler, 1988, p. 15). At Northwestern he developed an interest in economics and decided on an academic career. He returned to the University of Washington for one further year of graduate study, and then received a tuition scholarship to

study economics at the University of Chicago. There he found an intense intellectual atmosphere that captivated him. Chicago became his intellectual home for the rest of his life, as a student from 1933 to 1936, a faculty member from 1958 to his death in 1991, and a leading member of and contributor to the "Chicago School" throughout. He received his Ph.D. in 1938.

At Chicago, Stigler was particularly influenced by Frank H. Knight, under whom he wrote his dissertation—a noteworthy feat, since only three or four students ever managed to complete a dissertation under Knight in his twenty-eight years on the Chicago faculty. Stimulating and influential in both economic analysis and social philosophy, Knight was a perfectionist and tended to inhibit students who came under his influence. It is a mark of Stigler's character and drive that he never succumbed to that aspect of Knight's influence; rather, he imbibed what he described as Knight's "devotion to the pursuit of knowledge . . . a sense of unreserved commitment to 'truth'" (Stigler, 1988, pp. 17-18).

The other faculty members whose influence George stressed were Jacob Viner, who taught economic theory and international economics; John U. Nef, economic historian; and their younger colleague Henry Simons, who became a close personal friend and whose *A Positive Program for Laissez Faire* greatly influenced Stigler and many of his contemporaries.

"At least as important to me," wrote George, "as the faculty were the remarkable students I met at Chicago," and he goes on to list W. Allen Wallis; the author of this memoir; Kenneth Boulding and Robert Shone from Great Britain; Sune Carlson from Sweden; Paul Samuelson; and Albert G. Hart—all of whom subsequently had distinguished careers (Stigler, 1988, pp. 23-25).

I overlapped George at Chicago for one year, 1934-35, during which he, W. Allen Wallis, and I formed what proved

to be a lifelong friendship. As it happened, all three of our future spouses were also students at Chicago. George was to marry Margaret Mack, always known as Chick, who was majoring in social science. Allen would marry Anne Armstrong, an art history major, and I married Rose Director, whose major was economics. We soon formed a sextuple whose lives were intertwined from then on.

In 1936 George accepted an appointment as an assistant professor at Iowa State College (now University), and shortly thereafter was married to Margaret "Chick" Mack. George and Chick had three sons: Stephen, a professor of statistics at the University of Chicago; David, a corporate lawyer; and Joseph, a businessman. The family suffered a tragic loss in 1970, when Chick died unexpectedly, without any advance warning. George never remarried.

George accepted an appointment at the University of Minnesota in 1938 and then went on leave in 1942 to work first at the National Bureau of Economic Research and later at the Statistical Research Group of Columbia University, a group directed by Allen Wallis that was engaged in war research on behalf of the armed services. When the war ended in 1945, George returned to the University of Minnesota, but he remained only one year, leaving in 1946 to accept a professorship at Brown University. That simple statement conceals a traumatic experience. In George's words: "In the spring of 1946 I received the offer of a professorship from the University of Chicago and, of course, was delighted at the prospect. The offer was contingent upon approval by the central administration after a personal interview. I went to Chicago, met with the president, Ernest Colwell—because Robert Hutchins was ill that day—and I was vetoed! I was too empirical, Colwell said, and no doubt that day I was. So the professorship was offered to Milton Friedman, and President Colwell and I had launched the

Chicago School" (Stigler, 1988, p. 40). It speaks volumes for George's character that the incident never cast the slightest shadow on our friendship.

In 1946 George and I were two of the thirty-six participants at a conference in Switzerland convened by Friedrich A. Hayek to discuss the dangers to a free society. The Mont Pelerin Society was founded at that conference and has since grown and flourished, providing a forum for members from all over the world to discuss the issues involved in achieving and maintaining political and economic freedom. An active member of the society until his death, George served as its president from 1976 to 1978.

After a year at Brown, George moved to Columbia, where he remained until 1958, despite several attempts by Theodore Schultz, chairman of the Chicago Department of Economics, to bring him to Chicago. In 1958 Allen Wallis, then dean of the University of Chicago business school, persuaded him to accept the Charles R. Walgreen professorship of American institutions. George remained at Chicago for the rest of his life. At Chicago he became an editor of the *Journal of Political Economy*; established the Industrial Organization Workshop, which achieved recognition as the key testing ground for contributions to the field of industrial organization; and in 1977 founded the Center for the Study of the Economy and the State, serving as its director until his death.

In the academic year 1957-58, George was a fellow at the Center for Advanced Study in the Behavioral Sciences at Stanford. From 1971 to his death, George was a fellow at the Hoover Institution at Stanford, and spent part of almost every year at Hoover.

George was president of the American Economic Association in 1964, and of the History of Economics Society in 1977. He was elected to the National Academy of Sciences

in 1975. He received the Alfred Nobel Memorial Prize in Economic Science in 1982 "for his seminal studies of industrial structures, functioning of markets and causes and effects of public regulation." He received the National Medal of Science from Ronald Reagan in 1987.

George's governmental activities included service as a member of the attorney general's National Committee to Study the Antitrust Laws, 1954-55; chairman, Federal Price Statistics Review Committee, 1960-61; member, Blue Ribbon Panel of the Department of Defense, 1969-70; vice-chairman, Securities Investor Protection Corporation, 1970-73; co-chairman, Blue Ribbon Telecommunications Task Force, Illinois Commerce Commission, 1990-91.

A word about George as a person: In the nearly six decades of our friendship, I never knew him to do a mean or hurtful or unworthy thing to anyone. An ideal friend in time of trouble, he would go to any lengths to be helpful.

He always appeared casual and unhurried, seeming to have ample time for golf (his favorite sport), tennis, bridge, carpentry, photography (his favorite hobby), casual talk with friends, consultations with students, and constructive and detailed criticisms of the writings of his students and academic friends. Yet, he also was incredibly productive, turning out a steady stream of fundamental contributions. Truly, as his son Stephen said at a memorial service, "My father had phenomenal energy."

One feature of George's personality that he did his best to conceal was his extreme personal sensitivity. His smart cracks were in part a way of covering that sensitivity, as was his half-embarrassed laugh. He was as sensitive to others as to himself. The stiletto concealed in his humor was always meant for ideas or policies, never ad hominem—unless "An Economist Plays with Blocs" (1954), his brilliant title for an

article on Galbraith's theory of countervailing power, can be so interpreted.

George was a delightful correspondent. Serious and profound discussion never came without an interlarding of amusing comments. In a letter from London in 1948 when he was giving *Five Lectures on Economic Problems* (1949), after remarking on the inconvertibility of the pound and the inedible, still-rationed food, he concluded, "So here I am losing weight and gaining pounds."

George was an extremely valuable colleague. He provided much of the energy and drive to the interaction among members of the Chicago economics department, business school, and law school that came to be known at the Chicago School. His workshop on industrial organization was an outgrowth of a law school seminar started by Aaron Director, which George cooperated in running when he came to Chicago. His relations were especially close with Aaron, Gary Becker, Richard Posner, Harold Demsetz, and myself, enhancing significantly the scientific productivity of all of us.

STIGLER AS SCIENTIST

HISTORY OF THOUGHT

Stigler's doctoral dissertation, published as *Production and Distribution Theories* (1941), was a historical survey of neoclassical theories that remains the definitive study of its subject. That book was followed by a steady flow of perceptive, thoughtful, and beautifully written articles and books interpreting the contributions of his predecessors, some of which were collected in *Essays in the History of Economics* (1965).

Throughout, Stigler's interest was in "the essential structure of the . . . analytical system" of the authors whose work he examined (Stigler, 1969, p. 220). In judging that analyti-

cal system, he placed great stress on its implications for observable phenomena. "Surprising as it may sound, no previous scholar had ever examined the development of the discipline with anything like the same insistence that intellectual progress had to be measured in terms of its ability to generate empirically refutable propositions" (Rosenberg, 1993, p. 836). Stigler tried not only to identify such propositions but to put them to the test, often with data that would have been available to the author whose work he was examining.

During most of Stigler's professional career, the history of economic thought was in the doldrums as a field of study. His writing played a major role in keeping the field alive and enhancing its attractiveness. By the end of his career, the field was flourishing, thanks in part to the example he set and to the new directions for research that he pioneered.

PRICE THEORY

George's first important publication after his doctoral thesis was a textbook, The Theory of Competitive Price (1942), which was followed by revised versions under the title The Theory of Price in 1946, 1952, 1966, and 1987. Its systematic linking of highly abstract theory to observable phenomena is unique among intermediate textbooks in price theory, as is its concise yet rigorous exposition. That feature, according to Thomas Sowell, one of his students, "made it probably the least readable thing Stigler ever wrote. It was not a matter of convoluted writing or confused thought—Stigler was never guilty of either of these common academic sins-but of excessive condensation that required painstakingly slow pondering over every concentrated thought. If the book had been three times as long, it could have been read in half the time. Still, it remained something of a classic, though Stigler himself made many a wry joke about its supposedly meager sales. It was the kind of book that teachers of price theory courses read themselves, while they assigned some other text to the class" (Sowell, 1993, pp. 785-86).

The linkage of fact and theory in his textbook foreshadowed his subsequent scientific work. His many contributions to economic theory were all a byproduct of seeking to understand the real world, and nearly all led to an attempt to provide some quantitative evidence to test the theory or to provide empirical counterparts to theoretical concepts.

An early example of the latter is an article on "The Cost of Subsistence" (1945), which starts, "Elaborate investigations have been made of the adequacy of diets at various income levels, and a considerable number of 'low-cost,' 'moderate,' and 'expensive' diets have been recommended to consumers. Yet, so far as I know, no one has determined the minimum cost of obtaining the amounts of calories, proteins, minerals, and vitamins which these studies accept as adequate or optimum." George then set himself to determine the minimum cost diet, in the process producing one of the earliest formulations of a linear programming problem in economics, for which he found an approximate solution, explaining that "there does not appear to be any direct method of finding the minimum of a linear function subject to linear constraints." Two years later George Dantzig provided such a direct method, the simplex method, now widely used in many economic and industrial applications.

George's approximate solution—very close to the best possible one—cost very little, far less than the standard low-cost adequate diet, demonstrating that those diets could not be defended as "scientific" but reflected mainly allow-ance for taste and variety rather than simply for nutritive adequacy. The estimated cost of such low-cost diets has subsequently become the basis for the widely used poverty lev-

els of income, assuring the continued significance of this finding.

History of thought apart, George's impact was greatest and most lasting in the three fields that were singled out in the Nobel citation, those he labeled the economics of information, the theory of economic regulation, and the organization of industry.

"The Economics of Information" is the title of a seminal article (Stigler, 1961) that gave birth to an essentially new area of study for economists. In his intellectual autobiography, George termed it, "My most important contribution to economic theory" (Stigler, 1988, pp. 79-80). The article begins, "One should hardly have to tell academicians that information is a valuable resource: knowledge is power. And yet it occupies a slum dwelling in the town of economics. Mostly it is ignored." Stigler then proceeded to illustrate the importance of subjecting information to economic analysis with two examples: the dispersion of prices and the role of advertising (Stigler, 1961, pp. 213-25).

This article is a splendid illustration of several of Stigler's signal virtues: creativity (which he defined as consisting "of looking at familiar things or ideas in a new way"), the capacity to extract new insights about those seemingly familiar things, and the ability to state his main points in a provocative and eminently readable way.

As he wrote in his Nobel memorial lecture,

The proposal to study the economics of information was promptly and widely accepted. Within a decade and a half, the literature had become so extensive and the theorists working in the field so prominent, that the subject was given a separate classification in the *Index of Economic Articles*, and more than a hundred articles a year are now devoted to the subject.

The absence of controversy was certainly no tribute to the definitiveness of my exposition. . . . The absence of controversy was due instead to

the fact that no established scientific theory was being challenged by this work; in fact, all I was challenging was the neglect of a promising subject (Stigler, 1983, p. 539).

The historian of economic thought practicing his craft on himself.

ECONOMIC REGULATION

Starting from the traditional view that government regulation was instituted for the protection of the public, Stigler was struck by the absence of any quantitative studies of the actual effect of regulation. His first effort to remedy this was directed at the regulation of the prices of public utilities. The result was a 1962 article written jointly with Claire Friedland, his long-time associate, entitled "What Can Regulators Regulate? The Case of Electricity," which concluded that regulation of electric utilities had produced no significant effect on rates charged. This was followed two years later by "Public Regulation of the Securities Market," which concluded that purchasers of new stock issues fared no better (or worse) after the creation of the Securities and Exchange Commission than before. These articles, like "The Economics of Information," opened a floodgate of empirical studies of the effects of economic regulation. Economists could no longer simply take it for granted that the effects of regulation corresponded to the stated intentions.²

These essays "also posed a basic problem: If regulation does not generally achieve its stated objectives, why have so many agencies been established and kept in existence?" (Schmalensee, 1987, p. 499). "The Theory of Economic Regulation" (Stigler, 1971) presents Stigler's answer to that question. The "central thesis of the article," Stigler wrote, "is that, as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit." He notes that two "alternative views of the regulation of indus-

try are widely held. The first is that regulation is instituted primarily for the protection and benefit of the public at large or some large subdivision of the public . . . The second view is essentially that the political process defies rational explanation." He then gives example after example to support his own thesis, which by now has become the orthodox view in the profession, concluding, "The idealistic view of public regulation is deeply imbedded in professional economic thought . . . The fundamental vice of such a [view] is that it misdirects attention"—to preaching to the regulators rather than changing their incentives.

Stigler's analysis fed the emerging field that has since come to be called "public choice" economics: the shift from viewing the political market as not susceptible to economic analysis, as one in which disinterested politicians and bureaucrats pursue the "public interest," to viewing it as one in which the participants are seeking, as in the economic market, to pursue their own interest, and hence subject to analysis with the usual tools of economics. The seminal work that deserves much of the credit for launching public choice, *The Calculus of Consent*, by James Buchanan and Gordon Tullock, appeared in the same year as the Stigler-Friedland article.

"Smith's Travels on the Ship of State," published in the same year as "The Theory of Economic Regulation," raises the same question on a broader scale. Smith gives self-interest pride of place in analyzing the economic market, but he does not give it the same role in analyzing the political market. Smith's failure to do so constitutes Stigler's main—indeed, nearly only—criticism of the *Wealth of Nations*, that "stupendous palace erected upon the granite of self interest" (Rosenberg, 1993, p. 835). The same theme pervades many of Stigler's later publications.

The Organization of Industry (1968) is the title of a book

whose "main content," as Stigler says in the preface, "is a reprinting of 17 articles I have written over the past two decades [including "Economics of Information"] in the area of industrial organization . . . Although the main topics in industrial organization are touched upon, the touch is often light. The ratio of hypotheses to reasonably persuasive confirmation is distressingly high in all of economic literature, and it must be my chief and meager defense that I am not the worst sinner in the congregation." Stigler's main contribution to the field, both in this book and later writing, was the use of empirical evidence to test hypotheses designed to explain features of industrial organization. Article after article combines subtle theoretical analysis with substantial nuggets of empirical evidence, presented so casually as to conceal the care with which the data were compiled and the effort that was expended to determine what data were both relevant and accessible. These articles record the shift in Stigler's views on antitrust—from initial support of an activist antitrust policy to skepticism about even a minimalist policy—that led up to his path-breaking article on "The Theory of Economic Regulation" (Stigler, 1971).

Two other facets of Stigler's contributions deserve mention. First, his essays written for the general public, collected in three volumes, *The Intellectuals and the Marketplace* (1963), *The Citizen and the State* (1975), and *The Economist as Preacher* (1982). "There he [the intelligent layman] will find a potpourri of wit and seriousness blended with a high writing style" (Demsetz, 1982, p. 656). Second, his role as editor and reviewer. "For 19 years Stigler was a very successful editor of the *Journal of Political Economy*. Under his leadership this journal solidified its high reputation among economists" (Becker, 1993, p. 765). His complete bibliography lists 73 reviews in 24 publications ranging from strictly professional, like the *Journal of Political Economy* (22) and the

American Economic Review (10), to the popular, like the Wall Street Journal (5), and the New York Times (3), and dating from 1939 to 1989.

Stigler's last book, his intellectual autobiography, *Memoirs of an Unregulated Economist* (1988), is a delight to read. As I described it at the time: "Stigler's memoirs are a gem: in style, in wit, and above all, in substance, they reflect accurately his own engaging personality and his extraordinarily diverse contributions to our science."

STIGLER AS TEACHER

Stigler was also a great teacher. Many who knew him only casually, especially in his younger years, were offended by his wit, which could be biting, and his unerring ability to find just the right response to deflate pomposity and pretentiousness. His students never had that reaction. He was uniformly available, tolerant of their lack of understanding of subtle points, and willing to go to any length to help them. He inspired them by his own high standards and instilled a respect for economics as a serious subject concerned with real problems.

As John Lothian, one of my students who took several courses from Stigler, wrote me after Stigler's death: "His lectures taught me how to think about economics . . . His public persona was one of not suffering fools gladly, but that certainly did not come across in the classroom or in his individual meetings with us to talk over what we were doing in our papers for the course . . . He seemed quite willing to put up with foolishness from us as long as it seemed like we might ultimately get somewhere with what we were doing." Another student of Stigler's, Thomas Sowell, wrote: "What Stigler really taught, whether the course was industrial organization or the history of economic thought, was intellectual integrity, analytical rigor, respect for evi-

dence—and skepticism toward the fashions and enthusiasms that come and go" (Sowell, 1993, p. 788).

Stigler supervised many doctoral dissertations at both Columbia and the University of Chicago, a sharp contrast with the record of Frank Knight, under whom Stigler wrote his thesis. His students come close to dominating the field of industrial organization.⁴

FINAL WORD

I give final word on Stigler to his colleague and fellow recipient of the Nobel Memorial Prize in Economic Science, Ronald Coase:

He is equally at home in the history of ideas, economic theory, and the study of politics. Even more remarkable is the variety of ways in which he handles a problem; he moves from the marshaling of high theory to aphorism to detailed statistical analysis, a mingling of treatments. . . . It is by a magic of his own that Stigler arrives at conclusions which are both unexpected and important. Even those who have reservations about his conclusions will find that a study of his argument has enlarged their understanding of the problem being discussed and that aspects are revealed which were previously hidden. Stigler never deals with a subject which he does not illuminate. And he expresses his views in a style uniquely Stiglerian, penetrating, lively, and spiced with wit. His writings are easy to admire, a joy to read, and impossible to imitate (Coase, 1991, p. 472).

NOTES

- 1. Both essays are reprinted in *The Citizen and the State: Essays on Regulation*, pp. 61-77, 78-100. Chicago: University of Chicago Press, 1975.
- 2. Sam Peltzman recalculated the empirical results in the Stigler-Friedland article to correct a mistake in the original. His thoughtful and sophisticated article brings the story up to date (Peltzman, 1993).
 - 3. Personal letter dated Dec. 3, 1991.
- 4. According to Claire Friedland, Stigler's associate for many years, he served on more than forty thesis committees at Chicago,

perhaps forty more at Columbia, and chaired a considerable fraction of those committees.

REFERENCES

- Becker, G. S. 1993. George Joseph Stigler. J. Polit. Econ. 101:761-67.
- Coase, R. 1991. George J. Stigler. In *Remembering the University of Chicago*, ed. E. Shils, pp. 469-78. Chicago: University of Chicago Press.
- Demsetz, H. 1982. The 1982 Nobel Prize in economics. *Science* 218:655-57.
- Peltzman, S. 1993. George Stigler's contribution to the economic analysis of regulation. *J. Polit. Econ.* 101:818-32.
- Rosenberg, N. 1993. George Stigler: Adam Smith's best friend. J. Polit. Econ. 101:833-48.
- Schmalensee, R. 1987. *The New Palgrave: A Dictionary of Economics*, vol. 4, eds. J. Eatwell, M. Milgate, and P. Newman, pp. 499-500. New York: Stockton Press.
- Sowell, T. 1993. A student's eye view of George Stigler. *J. Polit. Econ.* 101:784-92.
- Stigler, G. J. 1961. The economics of information. *J. Polit. Econ.* 69:213-25.
- —. 1969. Does economics have a useful past? *Hist. Polit. Econ.* 1:217-30.
- —. 1971. The theory of economic regulation. *Bell J. Econ. Man. Sci.* 2:3-21.
- —— 1973. A sketch of the history of truth in teaching. *J. Polit. Econ.* 81:491-95.
- —— 1975. The Citizen and the State: Essays on Regulation. Chicago: University of Chicago Press.
- —— 1983. Nobel lecture: The process and progress of economics. *J. Polit. Econ.* 91:529-45.
- —— 1988. Memoirs of an Unregulated Economist. New York: Basic Books.

SELECTED BIBLIOGRAPHY

1941

Production and Distribution Theories: 1870-1895. New York: Macmillan.

1945

The cost of subsistence. J. Farm Econ. 27:303-14.

1946

The Theory of Price. New York: Macmillan.

1947

Domestic Servants in the United States, 1900-1940. New York: National Bureau of Economic Research.

The kinky oligopoly demand curve and rigid prices. *J. Polit. Econ.* 55:432-49.

Trends in Output and Employment. New York: National Bureau of Economic Research.

1949

Five Lectures on Economic Problems. New York: Longmans, Green Co.

1950

Employment and Compensation in Education. New York: National Bureau of Economic Research.

1954

The economist plays with blocs. Am. Econ. Rev. Pap. Proc. 44:7-14.

1956

Trends in Employment in the Service Industries. Princeton, N.J.: Princeton University Press.

1957

With D. M. Blank. *Supply and Demand for Scientific Personnel*. Princeton, N.J.: Princeton University Press.

1958

The goals of economic policy. J. Bus. 5:169-76.

1963

Capital and Rates of Return in Manufacturing Industries. Princeton, N.J.: Princeton University Press.

The Intellectual and the Market Place, and Other Essays. New York: Free Press of Glencoe.

1965

Essays in the History of Economics. Chicago: University of Chicago Press.

1967

Imperfections in the capital market. J. Polit. Econ. 75:287-92.

1968

The Organization of Industry. Homewood, Ill.: Irwin.

1970

Director's law of public income redistribution. J. Law Econ. 13:1-10.

1975

The Citizen and the State: Essays on Regulation. Chicago: University of Chicago Press.

1977

With G. S Becker. De gustibus non est disputandum. *Am. Econ. Rev.* 67:76-90.

1982

The Economist as Preacher, and Other Essays. Chicago: University of Chicago Press.

1986

The Essence of Stigler, eds. K. R. Leube and T. G. Moore. Stanford, Calif.: Hoover Institution Press.

1988

Memoirs of an Unregulated Economist. New York: Basic Books.

1990

The place of Marshall's *Principles* in the development of economics. In *Centenary Essays on Alfred Marshall*, ed. J. K. Whitaker, pp. 1-13. Cambridge: Cambridge University Press.