The Elgar Companion to the Chicago School of Economics

Edited by Ross B. Emmett

The Elgar Companion to the Chicago School of Economics

Edited by

Ross B. Emmett

James Madison College, Michigan State University, USA

Edward Elgar
Cheltenham, UK • Northampton, MA, USA

Published by
Edward Elgar Publishing Limited
The Lypiatts
15 Lansdown Road
Cheltenham
Glos GL50 2JA
UK

Edward Elgar Publishing, Inc.
William Pratt House
9 Dewey Court
Northampton
Massachusetts 01060
USA

A catalogue record for this book
is available from the British Library

Library of Congress Control Number: 2009941413

ISBN 978 1 84064 874 4 (cased)

Printed and bound by MPG Books Group, UK

Contributors

Orley Ashenfelter is the Joseph Douglas Green 1895 Professor of Economics at Princeton University. He is a recipient of the IZA Prize in Labor Economics, the Ragnar Frisch Medal of the Econometric Society, and the Jacob Mincer Lifetime Achievement award of the Society of Labor Economists. He has been President of the American Law and Economics Association and the Society of Labor Economics and he is currently President-elect of the American Economic Association.

H. Spencer Banzhaf is Associate Professor of Economics at the Andrew Young School of Policy Studies, Georgia State University. He is also a Faculty Research Fellow at the National Bureau of Economic Research (NBER) and a Senior Research Fellow at the Property and Environment Research Center (PERC). His research focuses on environmental economics and the history of applied economics.

William J. Barber is the Andrews Professor of Economics, Emeritus at Wesleyan University, Middletown, Connecticut. In three of his publications, he has made archival contact with members of the Chicago School: *From New to New Deal: Herbert Hoover, the Economists, and American Economic Policy, 1921–1933* (1985); *Designs Within Disorder: Franklin D. Roosevelt, the Economists, and the Shaping of Economic Policy, 1933–1945* (1996); and in *The Works of Irving Fisher* (1997), which he edited in 14 volumes.

Daniel K. Benjamin is the Alumni Distinguished Professor of Economics at Clemson University, and Senior Fellow at the Property and Environment Research Center in Bozeman, Montana.

Jeff E. Biddle is Professor of Economics at Michigan State University. He received his PhD from Duke University in 1985. His research in the history of economic thought has focused on twentieth-century American economics. He is also an editor of *Research in the History of Economic Thought and Methodology*.

Gordon L. Brady is a senior economist with the Joint Economic Committee of the US Senate. He received his PhD in economics from Virginia Tech in 1976 and has held numerous academic and government positions.

Glen G. Cain is Emeritus Professor of Economics at the University of Wisconsin. A labor economist, he received his PhD from the University of Chicago in 1964.

Ross B. Emmett is Professor of Political Economy and Political Theory and Constitutional Democracy at James Madison College, Michigan State University. He recently published a collection of his essays as *Frank Knight and the Chicago School in American Economics* (2009) and is currently working on a book about the history of Chicago economics. He is the lead editor for *Research in the History of Economic Thought and Methodology*, and has edited the two-volume *Selected Essays of Frank H. Knight* (1999) and the eight-volume *Chicago Tradition in Economics, 1892–1946* (2001).

Evelyn Forget is Professor of Economics in the Faculty of Medicine at the University of Manitoba, Canada. Recent publications include *Economists' Lives: Biography and Autobiography in the History of Economics* (edited with E. Roy Weintraub, 2008), *The Social Economics of Jean-Baptiste Say*, 1999 and *A Biographical Dictionary of Women Economists* (edited with M.A. Dimand and R.W. Dimand, 2000).

Morley Gunderson holds the CIBC Chair in Youth Employment at the University of Toronto and is a Fellow of the Royal Society of Canada. He is a Professor at the Centre for Industrial Relations and Human Resources (Director from 1985 to 1997) and the Department of Economics. In 2002, he was awarded the Industrial Relations Research Association Excellence in Education Award in Labor Economics and in 2003 the Gérard Dion Award for Outstanding Contributions to the Field of Industrial Relations.

J. Daniel Hammond is Hultquist Family Professor, Department of Economics, Wake Forest University. He was President of the History of Economics Society in 2001–02. His publications on the Chicago School include *Theory and Measurement: Causality Issues in Milton Friedman's Monetary Economics* (1996) and *Making Chicago Price Theory: Friedman–Stigler Correspondence, 1945–1957* (with Claire H. Hammond, 2006).

D. Wade Hands is Distinguished Professor of Economics at the University of Puget Sound in Tacoma, WA. He has written on a number of topics in the history and philosophy of economics. He is currently co-editor of *the Journal of Economic Methodology*. He is the author of *Reflection Without Rules: Economic Methodology and Contemporary Science Theory* (2001), and edited with Philip Mirowski *Agreement on Demand: Consumer Choice Theory in the 20th Century* (2006).

Sherryl D. Kasper is Professor of Economics at Maryville College, Maryville, Tennessee and the author of *The Revival of Laissez Faire: A Case Study of its Pioneers* (2002). She is currently researching the role of economists as public intellectuals.

Bruce E. Kaufman is Professor of Economics at Georgia State University. He publishes in labor economics, industrial relations, human resource management and the history of thought. His latest book is *Managing the Human Factor: The Early Years of Human Resource Management in American Industry* (2008).

David Laidler is Professor Emeritus of Economics at the University of Western Ontario, and a Fellow in Residence at the C.D. Howe Institute in Toronto. A specialist in monetary economics and its history, his most recent books include *Fabricating the Keynesian Revolution* (1999) and two volumes of his collected essays: *Money and Macroeconomics* (1999) and *Macroeconomics in Retrospect* (2004).

Hao Li is Professor of Economics at the University of Toronto. Li graduated from the University of Chicago in 1995 with Sherwin Rosen on his PhD dissertation committee. He continued to write joint papers with Rosen and visit him at Chicago and at Hoover until Rosen's untimely death in 2001. In 2006, the Canadian Economics Association awarded him the John Rae Prize for the best research record among Canadian economists over the previous five years.

Steven G. Medema is Professor of Economics and President's Teaching Scholar at the

University of Colorado Denver. He is the author of *The Hesitant Hand: Taming Self-Interest in the History of Economic Ideas* (2009), *Economics and the Law: From Posner to Post Modernism and Beyond* (with Nicholas Mercuro; 2nd edition, 2006), and *Ronald H. Coase* (1994). He served as editor of the *Journal of the History of Economic Thought* from 1999 to 2008.

Philip Mirowski is Carl Koch Chair of Economics and the History and Philosophy of Science, and Fellow of the Reilly Center, University of Notre Dame. He is author of, among others, *Machine Dreams* (2002), *The Effortless Economy of Science?* (2004), *More Heat than Light* (1989), and the forthcoming *ScienceMart™: A Primer on the New Economics of Science*. He has edited a book with Wade Hands on a history of the theory of demand theory in the twentieth century called *Agreement on Demand* (2006), and with Dieter Plehwe on the history of the rise of neoliberal doctrines, *The Road from Mont Pèlerin: The Making of the Neoliberal Thought Collective* (2009).

David Mitch is Professor of Economics at the University of Maryland, Baltimore County where he teaches economic history. He received his BA, MA, and PhD degrees, all in economics, from the University of Chicago.

Edward Nik-Khah is Associate Professor of Economics at Roanoke College, Virginia. He received his PhD from Notre Dame. 'A tale of two auctions' (*Journal of Institutional Economics*, 2008) won him the K. William Kapp prize for best article from the European Association for Evolutionary Political Economy. His current research focuses on George Stigler's role in building the foundations for Chicago economics.

John Pencavel is the Pauline K. Levin–Robert L. Levin and Pauline C. Levin–Abraham Levin Professor in the Department of Economics at Stanford University. He received his education at schools in London, at University College London, and at Princeton University. He served as editor of the *Journal of Economic Literature* from 1986 to 1998 and was President of the Society of Labor Economists in 2005–06.

Hugh Rockoff is Professor of Economics at Rutgers University, the State University of New Jersey, and a Research Associate of the National Bureau of Economic Research. His main academic interests are the financial and monetary history of the United States, especially during wartime.

Malcolm Rutherford is Professor of Economics at the University of Victoria, BC, Canada. He has published widely on the history of American institutional economics in the *History of Political Economy*, the *Journal of the History of Economic Thought*, the *Journal of Economic Perspectives* and the *European Journal of the History of Economic Thought*. He is the author of *Institutions in Economics: The Old and the New Institutionalism* (Cambridge University Press, 1994).

Eric Schliesser is BOF Research Professor in Philosophy and Moral Sciences at Ghent University. He publishes on Spinoza, Huygens, Newton, David Hume, Adam Smith, Milton Friedman, George Stigler, Warren Nutter, and Vernon Smith among others. He co-edited *New Voices on Adam Smith* (Routledge, 2006) and *Interpreting Newton* (Cambridge, in press). He will publish *Adam Smith* in the Routledge Philosophers series. He is currently working on a book, *The Rise and Fall of Chicago Economics, 1937–1976*.

Pedro Nuno Teixeira is Associate Professor in the Faculty of Economics, University of Porto and Director of CIPES – the Center for Higher Education Policy Studies (Portugal). His research interests focus on the economics of higher education and the history of economic thought, notably the historical development of human capital theory. He has published in several higher education and economic journals and is the author of *Jacob Mincer: A Founding Father of Modern Labour Economics* (2007), which won the prize of best book by the European Society of History of Economic Thought. He has also co-edited the volumes *Markets in Higher Education: Reality or Rhetoric?* (2004) and *Cost-Sharing and Accessibility in Higher Education: A Fairer Deal?* (2006).

Robert Van Horn is Assistant Professor of Economics at the University of Rhode Island. He is currently doing research on the history of the Chicago School of Antitrust. He received his PhD from Notre Dame in 2007 and was a postdoctoral fellow at the Duke University Center for the History of Political Economy (2008–09). He is editing, along with Philip Mirowski and Thomas Stapleford, a forthcoming book on the history of the Chicago School entitled *Building Chicago Economics*.

Stephen T. Ziliak is currently Trustee Professor of Economics at Roosevelt University. At the University of Iowa he earned a PhD Certificate in the Rhetoric of the Human Sciences simultaneous with his PhD in Economics (1996). He has co-authored three books and many articles with Deirdre N. McCloskey. Their most recent book is *The Cult of Statistical Significance* (2008) and they are currently working on *The Economic Conversation*, a textbook, co-authored with Arjo Klamer.

Preface

Edward Elgar proposed that I undertake a companion to the Chicago School several times in the late 1990s, and I finally took up the task almost ten years ago. The scope of the project, therefore, was framed in the early part of this decade. Given the recent renewed interest in the Chicago School, especially with regard to the role its ideas may have played in shaping the financial sectors' and the public's appreciation for financial market regulation, the volume will help to provide a historical perspective on the School's earlier incarnations.

The authors of the essays and biographies included here have been patient with my slow accumulation of materials and the delays resulting from my move from western Canada to Michigan in the last few years. I am glad that their work is finally appearing and thank them for their patience.

Several people have helped move this project to completion. First and foremost, my wife Kim encouraged me to stay with it and finish. Malcolm Rutherford, Steve Medema and Jeff Biddle played an early role in suggesting contributors. A couple of sessions organized by the History of Economics Society at the Society's annual meeting and the ASSA meetings included contributors to this volume. Phil Mirowski and Rob Van Horn organized a conference in 2007 at Notre Dame on the Chicago School, at which I met a couple of the more recent contributors to the volume. Finally, the text itself was proofread and rendered by several of my students: Brett Staron, Alan Bart, Laura Kovacek, Matt Stuart and Rachel Penn.

Ross B. Emmett

Contents

PART II SOME CHICAGO ECONOMISTS

Introduction

Ross B. Emmett

The University of Chicago has been identified with a unique brand of economic thinking for at least half a century. The essays in this volume discuss various dimensions of the nature, development, and extensions of the Chicago brand, often known as the Chicago School of Economics. The term 'School' is used here in a 'positive' sense; to indicate that a common set of assumptions – methodological and theoretical – about the discipline was developed by the economists at the University of Chicago, who sought through their teaching and research to enrich, extend and promote their vision of economic science. In this sense, one could speak equally of a Chicago School, a Cambridge (UK) School, a Wisconsin School, perhaps even a Cambridge (MA) School, with each of these schools (perhaps at different times in the twentieth century) adopting different methodological and theoretical assumptions and promoting a different perspective of economic science.

In the popular literature, most discussion of the Chicago School is focused on its 'normative' or 'ideological' character. Chicago in this context is primarily known as a promoter of *laissez-faire*, of market-based solutions to public policy problems, and for its connections to the Reagan, Thatcher and even Pinochet governments (for a variety of views, see Klein 2007, Van Overtveldt 2007, Freedman 2008, Shleifer 2009). In contrast to some of the other schools of economics mentioned above, the Chicago School understood economics to be an applied policy science, and, with some exceptions, have not been afraid to suggest that their scientific findings had relevance to policy debate. The essays included here often show the interconnections between the Chicago School's methodology, its theory, and its policy advocacy and advice. However, the translation of economic science into public policy may yield surprises, and it is misleading to try to move from the normative or ideological back to the scientific in explaining a social scientific school of thought. For example, President Barack Obama has sometimes been identified as a 'Chicago School' Democrat (Leonhardt 2008). Ultimately, the question is whether the Chicago School's policy framework is driven by the effort to understand how the working of the price system in free markets may affect a particular policy situation, or whether the theoretical understanding of the price system in free markets is driven by the attempt to defend a particular policy framework. Evidence for both views is provided in the volume, although the balance is probably tipped toward the first answer to the question rather than the second.

What, then, is the approach to economics as a policy science that forms the positive foundation for the Chicago School? The approach can be examined from methodological, theoretical, and organizational points of view. Each of the three views reveals a different facet of Chicago economics. From a methodological perspective, the Chicago School is grounded in the combination of two assumptions found in its two most famous methodological articles. Milton Friedman's 'The methodology of positive economics' (Friedman 1953) claimed that progress in economics as a policy science can be significantly furthered by the use of a toolkit of basic models that require little

additional theoretical work. Graduate study at Chicago became a process of immersion in those models so that they became so intuitive to one's work that, in combination with new empirical investigation, they opened the door to novel evaluations of market organization and government policy. The other methodological foundation for Chicago economics was codified twenty years later (although it had become standard practice at Chicago much earlier) in the article 'De gustibus non est disputandum' (Stigler and Becker 1977). Friedman's two colleagues pointed out that an economic policy science must assume that tastes and preferences are universally the same in order to usefully claim that economic phenomena can be explained in terms of changes in the cost sets that decision makers face. Science is not advanced by an explanation that ends with 'A's tastes are different from B's tastes', or that 'A's tastes changed'. The combination of the two assumptions has allowed Chicago economists not only to provide policy-relevant models for market phenomena, but also to expand the realm of social interaction that those models can be used to explain, often to areas previously considered outside the scope of economic theory (see, for examples, Becker 1996, Becker and Murphy 2000, Levitt and Dubner 2005). Frequently referred to even by insiders as 'economic imperialism' (Lazear 2000) this expansion is probably the most significant theoretical development in Chicago economics over the past thirty years, and was made possible by the methodological foundations built during the previous thirty years (see Medema 1998, 2000).

In terms of economic theory, Chicago economics in the post-war period was built on a firm foundation of Marshallian price theory. The Chicago 'canon', which students were often expected to become familiar with during their early price theory courses, was Marshall (1920), Knight (1921, 1933, 1936), Viner (1931), Friedman (1962), Stigler (1966), and Simons (2002). By the 1980s, students had added Alchian and Allen (1969), Becker (1971), and McCloskey (1985). With its clear focus on economics as an applied policy science, Marshallian price theory provided a small set of tools for use in a wide variety of policy areas to examine the outcomes of specific types of interventions. Because Chicago has largely avoided the analytical side trips that the rest of the discipline often engaged in during the post-war period, its economists were able to combine a rich understanding of the insights of price theory with a deepening understanding of empirical data to provide policy-relevant theoretical insights into many of the disciplinary subfields.

In fact, the combination of Chicago's theoretical and methodological insights redefined the nature of the disciplinary subfields. Prior to the 1940s, the fields differed substantively in their approaches to their study because they focused on the nature of the institutions and participants in the industries they studied. Economic theory, *per se*, was of little relevance, many argued, because it treated markets in the abstract, while most of the work of economists lay in the specifics of the markets in a particular industry or segment of the economy. Of what use, argued the institutionalists and others, was economic theory to, say, labor economics or transportation economics; fields in which the nature of the subject was far removed from the abstract model of perfect competition. While Chicago economists were not the only ones who challenged this argument, their work in showing the relevance of price theory to the empirical investigation of outcomes in labor markets and even transportation markets rewrote the discipline's approach to the relation of theory and actual societal outcomes. Rather than being a department in

which a group of scholars all studied aspects of economic life, post-war Chicago economics became a scholarly group who used a common economic approach to analyze all aspects of life.

Central to the development of that common economic approach was the integration of the Chicago School's research and teaching missions. From the mid-1950s on, Chicago adopted an organizational framework that focused all members of the department – students, junior faculty and senior faculty alike – on the common mission of training economic scientists and advancing economics as an applied policy science. The framework created to meet this common mission is sometimes known as the 'workshop model' (Emmett 2007). Several of the essays mention the Chicago workshops in the process of discussing the development of the Chicago approach in particular subfields of economics: labor, money and banking, industrial organization, agricultural economics, public finance, international economics, economic history, law and economics, and the economic development of Latin America. By 1980, there were about 18 workshops functioning across the Economics Department, the Law School, the Business School, and the Committee on Public Policy Studies (which was to become in 1990 the Harris School of Public Policy Studies).

If the preceding identification of the Chicago School is correct, then the School is largely a post-war phenomenon. Melvin Reder (1982) and others (Bronfenbrenner 1962, Miller 1962) have argued that the post-war Chicago School is largely a continuation of the circle of scholars that gathered around Knight in the 1930s. Several essays in the volume examine the issue of continuity as they examine specific aspects of Chicago economics from the 1930s to the 1980s, and there are biographies of several key figures from the 1930s. However, while continuous elements are found (the 'Chicago' canon, after all, directs our attention to several pre-war contributions), the identification of economics as a policy science, and the creation of the workshop system that entrenched that understanding of economics in both teaching and research, make it clear that Chicago economics in the post-war period is a 'school of thought' in a way that the 'Knight circle' could only aspire to (for earlier versions of this argument, see Stigler 1962, Samuels 1976).

Not all the dimensions of the Chicago School are covered in this volume. While the lack of total coverage is unfortunate – efforts were made to obtain essays on international trade, household economics, and the role of the Cowles Commission at Chicago during the 1940s and early 1950s, for example – the essays included here provide ample evidence of the range and coherence of the Chicago approach. They also include some indication of the influence Chicago had on the broader discipline, not only in the essays on particular aspects of the Chicago tradition, but also through a couple of essays on people (Armen Alchian) or places (UCLA and the various Virginia universities at which James Buchanan and the Center for the Study of Public Choice have resided over the past 50 years) which interacted with Chicago in ways that both extended and challenged the Chicago perspective. Several of the essays also address the broader reach of Chicago economics as well as pointing toward new areas of research on the Chicago School: its relation to the development of neoliberalism and economic development in Latin America. Taken as a whole, the essays in the volume both survey the state of current knowledge about the Chicago School and suggest that much further research is required.

References

Alchian, A.A. and W.R. Allen (1969), *Exchange and Production: Theory in Use*, Belmont, CA: Wadsworth.

Becker, G.S. (1971), *Economic Theory*, New York: Alfred Knopf.

Becker, G.S. (1996), *Accounting for Tastes*, Cambridge, MA: Harvard University Press.

Becker, G.S. and K.M. Murphy (2000), *Social Economics: Market Behavior in a Social Environment*, Cambridge, MA: Belknap Press.

Bronfenbrenner, M. (1962), 'Observation on the "Chicago School(s)"', *Journal of Political Economy*, **70** (1), 72–5.

Emmett, R.B. (2007), 'Sharpening tools in the workshop: the workshop system and the Chicago School's success', paper presented at the Re-visiting the Chicago School of Economics conference, University of Notre Dame, September, available at: http://ssrn.com/abstract=1014015.

Freedman, C.F. (2008), *Chicago Fundamentalism: Ideology and Methodology in Economics*, Singapore: World Scientific.

Friedman, M. (1953), 'The methodology of positive economics', in *Essays in Positive Economics*, Chicago, IL: University of Chicago Press, pp. 3–43.

Friedman, M. (1962), *Price Theory: A Provisional Text*, Chicago, IL: Aldine.

Klein, N. (2007), *The Shock Doctrine: The Rise of Disaster Capitalism*, New York: Metropolitan Books.

Knight, F.H. (1921), *Risk, Uncertainty and Profit*, Boston, MA: Houghton Mifflin.

Knight, F.H. (1933), *The Economic Organization*, Chicago, IL: University of Chicago.

Knight, F.H. (1936), *Notes on Utility and Cost*, Chicago, IL: University of Chicago Press.

Lazear, E.P. (2000), 'Economic imperialism', *Quarterly Journal of Economics*, **115** (1), 99–146.

Leonhardt, D. (2008), 'Obamanomics', *New York Times Magazine*, August 24.

Levitt, S.D. and S.J. Dubner (2005), *Freakonomics: A Rogue Economist Explains Everything*, New York: William Morrow.

Marshall, A. (1920), *Principles of Economics*, 8th edn, London: Macmillan.

McCloskey, D.N. (1985), *The Applied Theory of Price*, 2nd edn, New York: Macmillan.

Medema, S.G. (1998), 'The trial of *homo economicus*: what law and economics tells us about the development of economic imperialism', in *New Economics and Its History*, Davis, J.B. (ed.), Durham, NC: Duke University Press, pp. 122–42.

Medema, S.G. (2000), "Related disciplines: the professionalization of public choice analysis', in *Toward a History of Applied Economics*, Backhouse, R.E. and J.E. Biddle (eds), Durham, NC: Duke University Press, pp. 289–323.

Miller, H.L., Jr. (1962), 'On the "Chicago School of Economics"', *Journal of Political Economy*, **70** (1), 64–9.

Reder, M.W. (1982), 'Chicago economics: permanence and change', *Journal of Economic Literature*, **20** (1), 1–38.

Samuels, W.J. (ed.) (1976), *The Chicago School of Political Economy*, East Lansing, MI: Association for Evolutionary Economics and Division of Research, Graduate School of Business Administration, Michigan State University.

Shleifer, A. (2009), 'The age of Friedman', *Journal of Economic Literature*, **47** (1), 123–35.

Simons, H.C. (2002), 'The Simons' syllabus', in *The Chicago Tradition in Economics, 1892–1945*, 8, Emmett, R.B. (ed.), London: Routledge, pp. 3–70.

Stigler, G.J. (1962), 'On the "Chicago School of Economics": comment', *Journal of Political Economy*, **70** (1), 70–71.

Stigler, G.J. (1966), *The Theory of Price*, 3rd edn, New York: Macmillan.

Stigler, G.J. and G.S. Becker (1977), 'De gustibus non est disputandum', *American Economic Review*, **67** (2), 76–90.

Van Overtveldt, J. (2007), *The Chicago School: How the University of Chicago Assembled the Thinkers Who Revolutionized Economics and Business*, Chicago, IL: Agate.

Viner, J. (1931), 'Cost curves and supply curves', *Zeitschrift für Nationalökonomie*, **3**, 23–46.

PART I

ESSAYS ON THE CHICAGO SCHOOL

1 The development of post-war Chicago price theory

J. Daniel Hammond

Introduction

Within a short time after the end of the Second World War the University of Chicago economics faculty was transformed. Jacob Viner, who along with Frank H. Knight personified Chicago price theory from the 1920s through the war years, decamped for Princeton. Though Knight remained at Chicago, he was less involved in the department's graduate program than he had been before the war. Henry Schultz, who brought his pioneering work on empirical estimation of demand to Chicago in 1926, died in an automobile accident in 1938. The native Pole, Oscar Lange, replaced Schultz teaching economic theory and mathematical economics, but in 1945 Lange was named Polish Ambassador to the United States and departed Chicago. Henry Simons died in June 1946. Paul Douglas, famous for the Cobb–Douglas production function, took leave from the university to join the Marine Corps during the war and afterwards withdrew from teaching and research to take up a political career.

These people were replaced by a cast of new faces. Theodore Schultz and D. Gale Johnson arrived from Iowa State in 1943 and 1944. Jacob Marschak came to Chicago when the Cowles Commission moved there from Colorado Springs in 1943. He recruited Tjalling Koopmans in 1944. Both had appointments in the Economics Department in addition to Cowles. Marschak was Director of the Cowles Commission from his arrival until 1948 when Koopmans replaced him.[1] H. Gregg Lewis was a graduate student when Henry Schultz died in 1938. When Lange was brought in to teach economic theory, Lewis was given the statistics and econometrics courses formerly taught by Schultz. After wartime interruptions to his teaching and dissertation research, Lewis received his PhD in 1947.

Among the new faces on the post-war Chicago economics faculty was Milton Friedman. In the spring of 1946 Friedman was hired to replace Jacob Viner as the department's price theorist. He began teaching in the next autumn quarter. The position came to Friedman after the department's choice as Viner's replacement, Friedman's officemate at the University of Minnesota, George J. Stigler, was vetoed by the university president.[2] Friedman and Stigler had both been at Chicago as graduate students, Friedman in 1932–33 and 1934–35. His training under Viner, Schultz and Knight provided a basis for the price theory courses he taught there from 1946 until 1964, and from 1972 until his retirement from classroom teaching in 1976.

Milton Friedman

When Friedman joined the faculty in 1946 there was a two-quarter price theory sequence, Economics 300A and 300B. Frank Knight still taught 301, the course Friedman took in 1932, but this no longer provided the instruction in price theory for PhD students. Economics 300A was devoted to the theory of price determination from a partial equilibrium approach. This theme continued into 300B, which also covered the theory of