

George F. Warren: A Pioneer of Our Profession

George F. Warren was a central figure in the early years of agricultural economics. Born in 1874, his life spanned two great agricultural depressions and his professional life was greatly influenced by them. He left a lasting imprint on our profession from his work in farm management, price analysis, and public policy.

Warren grew up on the Nebraska prairies, the ninth and youngest child in his family. His father and mother had come west from Connecticut to farm first near LaSalle, Illinois. After four years of military service in the Civil War, his father sold that farm and homesteaded at the end of the rail line near Harvard, Nebraska. Young George learned early about hard work and the ups and downs of crop yields and prices in the years of the Populists, Greenbackers, and the Granger Movement. His family found a way to support his completion of high school and subsequent enrollment at the University of Nebraska in 1892. He majored in mathematics and the natural sciences, working as a waiter to help cover his expenses. After graduation he taught mathematics at Minden, became school principal in Fairbury, and Superintendent of Schools at Nelson, all towns on the Little Blue River or its tributaries in south-central Nebraska.

Further education and farm management

Warren's success as a teacher and administrator led him to consult with his former teacher of botany, Dr. C.E. Bessey, about further study. He recommended working with Liberty Hyde Bailey and I.P. Roberts at Cornell. Bailey and Bessey had studied together at Harvard University under Asa Gray.

Warren was admitted to Cornell where he first completed a B.S. in agriculture in 1903. For his master's, Bailey sent Warren to the fruit farms along Lake Ontario to learn more about successful orchard practices. An M.S. was granted in 1904 and the study was enlarged to include organized interviews and data collection on both costs and returns for his Ph.D., granted in 1905.

Warren accepted a position as horticulturist at Rutgers University on completion of his degree. One year later Bailey brought him back to Cornell in agronomy as a replacement for Thomas Hunt when Hunt left to become dean at Penn State. Hunt had just initiated a study of costs and returns for the whole farm business by personal interview in Tompkins County. Warren carried it forward and over the next two years developed a standard survey form to obtain labor income records. Out of this research came two of Warren's most important publications. The first, *An Agricultural Survey* (Cornell Univ. Agr. Exp. Sta. Bull. 295, March 1911), reported the results of this landmark study of 769 farms in four townships. It was really a small book of 200 pages replete with photographs, tables, and charts to present what had been learned. The lead sentence of the bulletin, "Every farm is an experiment station and every farmer the director thereof," attributed to Bailey, reflected the philosophy that directed Warren's thesis work and this major study. The second monograph, *Agricultural Surveys* (Cornell Univ. Agr. Exp. Sta. Bull. 344, 1914), detailed the methodology and procedures used in his farm business studies. A shorter version of this material was presented by Warren as his presidential address at

the fourth annual meeting of the American Farm Management Association in November 1913.

Warren was an effective writer and speaker. With encouragement from Dean Bailey he wrote his first book, *The Elements of Agriculture*, published by Macmillan in 1909, which sold more than 400,000 copies. The book was designed for use in high schools, normal schools, and colleges. In eighteen chapters it covered a full range of topics, from propagation of plants to soils and feeds and feeding. Much of the information came from Warren's personal collection of agricultural experiment station bulletins. By 1911 this collection occupied two rooms of the first floor of his house. Warren's second book, *Farm Management*, was also published by Macmillan in 1913. It was also a best seller. Warren's clear, direct style appealed to farmers and students alike. A quote from the concluding section of his chapter on "Size of Farms" gives a sense of his ability to communicate:

One of the chief reasons boys leave the farm is because there is not enough work to make it pay to stay. There may be work puttering around, but a boy of energy wants to do productive work. The writer recently heard a farmer on a 40-acre farm say that he could keep four men busy. His 17-year-old son added that he would be no better off in the fall than in the spring. They were both right. The boy will leave the farm, because there is no profitable work for him (p. 268).

In a short span of ten years Warren established himself as an important agriculturist and leader in the new field of farm management. He built on the

earlier work of Bailey and Hunt and established what became known as the survey method of obtaining data from farmers and then analyzing the results statistically. His methodology was quickly and widely adapted; W.J. Spillman, Office of Farm Management, USDA, funded these kinds of studies in the Northeast, Indiana, Illinois, and Iowa. Many states were using farm surveys as the basis for new extension and research programs by 1920.

Professional activities

Warren became head of the Department of Farm Crops and Farm Management at Cornell in 1908 and the separate department of Farm Management in 1912. The American Farm Management Association was organized in 1910 at Iowa State College with Spillman as its first president and Warren as secretary-treasurer. This organization produced a journal based on the papers presented at its meetings. In December 1917, its committee on resolutions, consisting of Peck, Warren, and Cox, proposed to the then 348 members of AFMA, representing all forty-eight states: "In view of the fact that the American Farm Management Association, since its organization, has dealt largely with problems in the field of economics as related to agricultural production, the committee recommends that the word "management" be changed to 'economics' so as to read 'American Farm Economics Association.'" Because an informal association of agricultural economists was already meeting with the American Economic Association, action was not taken formally until January 1919 when the merger of the two groups occurred. The name was changed as proposed and a new quarterly publication, the *Journal of Farm Economics*, was launched. In keeping with the national decision, Cornell's Department became Agricultural Economics and Farm Management in 1920, where Warren continued to serve as its head the rest of his life.

Price analysis and index numbers

The onset of World War I, inflation,



and arguments about price controls brought Warren's full attention to prices, the supply of agricultural products, and the role of government in helping to solve economic problems. Along with other leading figures in agricultural economics, such as Taylor at Wisconsin and Carver at Harvard, Warren was called to Washington in 1917-18 to advise Herbert Hoover, the food administrator. Warren counseled against fixing prices for farm products but to no avail. In March 1919, he summarized his views in *The American Economic Review*, "Some Purposes of Price Fixing and Its Results":

The popular demand for price fixing comes very largely from a desire to avoid the necessity of economy. The ordinary consumer believes that if prices are fixed he can have more of the product, not realizing that, whatever the price, we can only eat as much as there is, and that a reduced price reduces the production of the product that was already short (p. 234).

After the war, Taylor became chief of USDA's Bureau of Markets and Crop Estimates and contracted with Warren to complete a study of farm product prices in the United States. This effort

was published in August 1921 as USDA Bulletin 999. Warren wrote:

No price is high or low except by comparison. If the price of a product has been cut in half it does not mean that the product is necessarily cheap. One must know the general price level in order to make comparisons.... In June 1921 the price of corn was 92 percent of its prewar average. Since the price level was 151 percent of the prewar average, the relation of corn to the general price level was 61 percent.... Practically nothing that the farmer sells can be exchanged for the usual quantity of other things (pp. 1, 19, 25).

One of Warren's most important contributions to scholarship grew out of his study of prices and production in the postwar years, "Interrelationships of Supply and Price" (Cornell Univ. Agr. Exp. Sta. Bulletin 466), authored with Frank Pearson. The 1928 bulletin opened:

The increasing spread between farm and retail prices and the increasing violence in the fluctuations of farm prices were a serious problem even before the World War. With deflation, the maladjustment between farm and retail prices has been the most serious factor in causing the agricultural depression.

In the report, supply-price relationships were investigated for nearly all of the nation's farm commodities in some 87 figures, 128 tables, and 221 regression equations. The technical appendix reviewed previous work back to Gregory King, Edgeworth, and Jevons. The important contributions of Moore, Schultz, and Working were cited, along with many others.

Index numbers were central to all of Warren's studies of prices and their relationships. In 1932, Warren and Pearson completed their monumental study, *Wholesale Prices for 135 Years, 1797 to 1932* (Cornell Univ. Agr. Exp. Sta. Memoir 142.) It began:

Up to the present time no monthly index numbers of wholesale prices covering the past century have been pre-

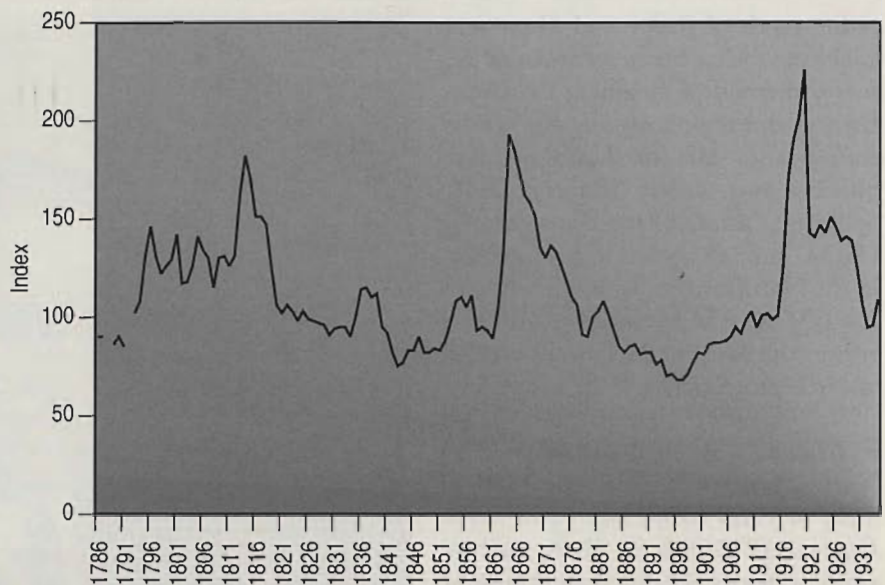


Figure 1. Wholesale prices in the United States for 149 years, 1786-1934

pared, although a number of persons have prepared index numbers for a part of the period. It is the aim of this study to present comprehensive index numbers to correspond with the present index numbers of the United States Bureau of Labor Statistics. The collection of the data was made possible by a grant from the International Committee on Price History.

Major sections of the memoir were devoted to the methodology used in obtaining monthly price series and the weights used in constructing the index numbers. The amount of careful work in producing this set of index numbers, and in comparing the results with every other set of index numbers that had been prepared by other analysts for parts of this long stretch of years, is difficult to imagine today. The index numbers, as constructed, were essentially adopted by the Bureau of Labor Statistics as the national series for wholesale prices and remain as the national, historic record of prices today (see figure 1).

Public policy

Warren's role in public policy came as a result of his basic concern for the education and well-being of farmers and rural people. His research, teaching, and extension efforts in New York made him a public figure who was widely

sought as a public speaker and advisor to both state and national governments. In response to community concerns in rural areas and to gain more factual information, a series of studies was initiated in the 1920s on abandoned farms, utilization of marginal lands, farm property taxation, the relationships between roads and agriculture, rural electrification, and collection of taxes and their distribution to local governments. When Franklin Roosevelt was elected New York State governor in 1928, he quickly named an Agricultural Advisory Commission on which Warren emerged as a key figure. The state provided new funding for soil surveys, land-classification studies, and climatological work. Roosevelt and his staff came to respect Warren and his concerns for rural people and their needs. The governor and legislature established new formulas for funding the work of local governments in rural areas for schools, roads, and utilities. Warren reported some of this experience and his philosophy about legislation in the *Journal of Farm Economics*, "A State Program of Agricultural Development," in July 1930:

I believe that agriculture and general welfare would be much better served if most of the effort were expended in getting fundamental legislation, that is, legislation that would be needed if

there were no depression rather than in efforts to get emergency legislation. Legislation is too slow to meet emergencies (pp. 359-60).

Warren's interest in commodity prices and his efforts to understand the general price level grew out of first-hand experience with the great difficulties farm families faced in the years following the Civil War and again after World War I. Deflation and all the problems associated with it were stark and real to him. His studies of commodity prices led him to examine the monetary stocks and the price of gold, which was used by most western countries before World War I as the basis of value for their individual currencies. The War led most European countries to go off the gold standard while the United States maintained its currency at \$20.67 per fine ounce as it had most years from 1834 forward. Warren concluded that one of the reasons that deflation continued in the United States was that our government continued on the gold standard when most of the world had left it.

When Roosevelt campaigned for the presidency in 1932, he used many of Warren's arguments for a move away from the gold standard and the deflation of prices. FDR was seen as the "soft" money candidate and Hoover the "sound" money man. In the chaotic first days of Roosevelt's presidency, Warren spent much of his time in Washington as one of Roosevelt's key advisors. It was a time of experimentation and widely differing points of view among those advisors. The National Bank Holiday and the decision to go off the gold standard followed in quick succession in 1933. But the forces arguing for a return to a new gold standard were strong, and the Gold Reserve Act of 1934 was passed one year

later establishing a new standard for the dollar of \$35.00 per fine ounce of gold. Warren's efforts to move to a managed currency without a fixed price for gold had failed, and his trips to Washington became less frequent, but his warm relationship with FDR continued.

Warren was in great demand as a speaker throughout the country during the last ten years of his life. He was known as an advocate of farmers and those looking for work and wanting to pay their debts. He remained a champion of the free market and argued vig-

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orously against the Agricultural Adjustment Act (AAA) of 1933 and against limits on production as a way to solve low farm prices. He continued to be an advocate for a managed currency, something we take for granted some sixty-five years later. Warren died in 1938 after completing his final book, *World Prices and the Building Industry*

(1937). His energy and concerns for rural people were instrumental in the construction of a building for agricultural economics at Cornell in 1932. He was a major force in the establishment of the International Association of Agricultural Economics in 1929-30. His major academic contributions were in farm management, price analysis, and public policy. His legacy to his profession and the people of the state and nation was a commitment to a factual basis for making decisions both in research and public policy. A man of great personal integrity, his imprint was large on agriculture and his profession in the first forty years of this century. ■

■ For more information

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