



AGRICULTURAL ECONOMICS IN CALIFORNIA

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INTRODUCTION

This section of the archival material is comprised of four historical statements regarding agricultural economics at the University of California:

- ECONOMIC RESEARCH OF INTEREST TO AGRICULTURE
Harry R. Wellman – 1951

These special materials were originally published in 1951 as part of the first issue of a periodical report called *Economic Research of Interest to Agriculture*. The foreword by Robert G. Sproul, then president of the University of California, and summary of the Foundation's research contributions to California agriculture by Harry R. Wellman, then director of the Giannini Foundation, summarize the first twenty years of activities of the Foundation.

- THE GIANNINI FOUNDATION OF AGRICULTURAL ECONOMICS
Minutes of the Regents' Meeting – April 22, 1966

This statement was probably prepared by Loy L. Sammet, who was director of the Foundation at the time.

- AGRICULTURAL ECONOMICS AT THE UNIVERSITY OF CALIFORNIA, BERKELEY
Loy L. Sammet – March 1985

- AGRICULTURAL ECONOMICS AT THE UNIVERSITY OF CALIFORNIA, DAVIS
Warren E. Johnston – March 1985

- DEPARTMENTAL HISTORY: AGRICULTURAL AND RESOURCE ECONOMICS,
UNIVERSITY OF CALIFORNIA, DAVIS
Colin A. Carter – 1999

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ECONOMIC RESEARCH OF INTEREST TO AGRICULTURE

FOREWORD TO *ECONOMIC RESEARCH OF INTEREST TO AGRICULTURE*

Robert G. Sproul

1951

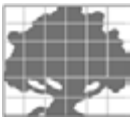
The Economic Research of Interest to Agriculture report series was launched in 1951 by the Giannini Foundation and the University of California's Division of Agricultural Economics. Robert G. Sproul, then president of the university, provided the foreword for the report.

A little more than twenty years ago the Regents of the University of California received a gift of \$1.5 million through the instrumentality of the late Mr. Amadeo Peter Giannini to study and make better known the economic facts and conditions upon which the continued solvency and prosperity of California's agricultural industry must of necessity rest. With that gift there was created the Giannini Foundation of Agricultural Economics and a building to house its work, Giannini Hall.

May 6, 1951, is the eighty-first anniversary of the birth of Mr. Giannini in a farmworker's family at San Jose, California. On this occasion, through the courtesy and thoughtfulness of his son, Mr. Lawrence Mario Giannini, there has been presented to the university by the Bank of America, for permanent placement in Giannini Hall, a portrait of Mr. Giannini, painted a few years prior to his appointment as a regent of the university.

It seems appropriate, therefore, that the University of California should give some accounting at this time of the trust placed upon it, and in so doing, pay tribute to Mr. Giannini. For there is no more striking proof of the service which he has rendered to his native state, and one might add, to the nation, than the acceleration of research in agricultural economics during the past two decades, and the results which have as a consequence been achieved. It is the purpose of this brief report prepared by Professor Harry R. Wellman, chairman of the Division of Agricultural Economics and director of the Giannini Foundation, to trace the development of research in agricultural economics and to indicate the magnitude of the contribution which Mr. Giannini has made possible.

— Robert G. Sproul, President, University of California



COMMENTS ON GIANNINI FOUNDATION CONTRIBUTIONS TO ECONOMIC RESEARCH OF INTEREST TO AGRICULTURE

Harry R. Wellman

In an introductory section titled "Economic Research of Interest to Agriculture," Harry R. Wellman, then director of the Giannini Foundation, summarized the contributions of the Foundation to California agriculture in the twenty years since its inception.

Wellman was an Extension specialist from 1925 to 1935 and professor of agricultural economics from 1935 to 1952. He was director of the Giannini Foundation from 1942 to 1952. He later held administrative positions ranging from vice president of agricultural sciences to acting president of the University of California between 1952 and 1967.

HISTORICAL BACKGROUND

An historical account of research in agricultural economics in the College of Agriculture at the University of California must recognize that in the early years of the college, agricultural economics research was not a separate field of investigation. The Division of Agricultural Economics was not set up until many years after the college was established. Some economic phases of agriculture were investigated, but the results were included in publications primarily designed to answer technical questions about the physical aspects of agriculture. The emphasis at that time was not on how much it would cost to produce, harvest, and market a crop or what price the crop would bring; but on how much could be produced, how fast it could be harvested and made ready for the market. California's population increased so rapidly during the Gold Rush era (1848–1860) that food supplies could not keep pace.

Of considerable importance to later developments was the chartering by the state legislature of the State Agricultural Society, an organization whose function was the stimulating of interest in better breeds of livestock, improved varieties of fruits and vegetables, and the diffusing of information on experiments being conducted throughout the state. The members of this society were joined by other California farmers in promoting the idea that the state's agriculture could be developed more rapidly if experiments were organized and controlled in a school for agriculture supported by the state. Federal aid became available for such a school through the Morrill Act of 1862, and the state legislature authorized such a college in 1866. The College of Agriculture, however, was not established until 1868.

During the first fifty years of its existence, the College of Agriculture devoted its energies mainly to the development of better varieties of fruits and vegetables, improved feeding methods for livestock, disease-control activities in plants and animals, and many other functions which would increase food production within the state. Two reasons prompted this concentration of effort during the last quarter of the nineteenth century and the early part of the twentieth.

The first reason, and perhaps the one placing the heaviest emphasis on developments, was the real shortage of food within the state. The "California Agricultural Experiment Station Circular 96," published in 1912, indicated one phase of the shortage in its statement that "California is producing only one hog for every three people in the state. She is consuming more than three times that many." This same year, the Experiment Station sponsored a bean-raising contest and a potato-growing club to encourage and educate the "younger generation" of farmers toward increasing the acreage planted to



these very important foods. One of the station's publications that year also dealt with another problem, "Increasing Dairy Profits" by eliminating low-milk-producing cows. Throughout all of the publications of the early years of the College of Agriculture, research and teaching emphasized increasing production of agricultural commodities.

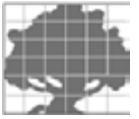
The second reason for concentrating on purely technical agricultural subjects grew out of the provisions of the Morrill and Hatch Acts, which limited in word and interpretation the use of federal funds provided under these acts for research and teaching in technical agriculture, with no extension of the term to include related fields.

Agricultural expansionists received additional support and encouragement during World War I when acreages planted to all commodities reached a new high in the state. With the close of the first World War, demand for staple foods decreased and the rapid decline in prices focused attention on economic and sociological problems. California farmers had learned to look to the College of Agriculture, with its Experiment Station and Extension Service, for help and guidance in treating the ills of agriculture. But some of the important ills from which agriculture was suffering in the 1920s were not to be diagnosed and prescribed for by the entomologist, the agricultural chemist, the plant nutritionist, or the soils expert. The new problems were those of finding new markets, cheaper methods of production, better farm-management practices, and different uses of land. In other words, farmers needed help from marketing experts, land utilization specialists, and farm-management analysts, as well as from the technical scientists.

The Division of Rural Institutions, established in 1915, and the Division of Farm Management, set up about five years later, brought together valuable information. The problems of agriculture in the postwar period multiplied so rapidly, however, that the personnel of these two divisions was too small to cope with them adequately. It was recognized that something must be done, and in 1925 the solution began with the merging of the two divisions into the Division of Agricultural Economics. New personnel was added as rapidly as funds would permit. The work thus started was furthered by federal aid provided by the Purnell Act of 1925, "An act to authorize the more complete endowment of agricultural experiment stations." This act permitted federal funds to be used for economic research in its relation to agriculture and agricultural industries.

By 1926/27 the Division of Agricultural Economics was actively engaged in research in the following fields: farm management, land use, marketing, and prices. Activity, however, was still limited to the time and energies of a half-dozen men who, in addition to research, were endeavoring to develop and teach courses in the newly authorized curriculum in agricultural economics. Prior to 1926/27, courses in agricultural economics were offered under agriculture, animal husbandry, agronomy, and rural institutions. A major curriculum in agricultural economics was offered for the first time in 1926/27. By that year, therefore, resident teaching, research, and extension work in agricultural economics in the College of Agriculture were clearly defined and their importance as a special field of endeavor recognized.

The Giannini Foundation of Agricultural Economics was established in 1928. In addition to providing funds for the building of Giannini Hall, the gift of Amadeo Peter



Giannini created an endowment, the income from which has contributed much to the support of research pertaining to the economic problems of agriculture.

Throughout the Depression years of the early and middle 1930s, the recovery and national defense years of the late 1930s, the World War II era, and then the postwar years, research in agricultural economics developed and contributed to the progress of the state and nation.

It is appropriate that we not only look at our findings, but also note the work in progress. The research work in agricultural economics at the University of California through 1950 is indicated by the comprehensive list of publications which follows this statement. A general account of work in progress is given by the following comments on various fields.

FARM MANAGEMENT AND PRODUCTION

Work in farm management and production was formally established in the College of Agriculture over thirty-five years ago, in 1914. Since then, California's agriculture has undergone much change. New enterprises and lines of production have been introduced, and marked changes have occurred in farming equipment and cultural practices. In view of the dynamic growth of our agriculture, it is necessary that farm management research be in the vanguard. Two of our current farm management research projects exemplify conditions which have raised new problems on the farm or ranch and which have heightened the need for new information.

In recent years, difficulties have been encountered in heating orchards as protection against losses from low temperatures and freezes. The problem has its engineering phases, such as the development of new types of equipment. While this kind of work is in progress, we coordinate with it a study of the economic aspects. We are attempting to provide economic information on the most effective systems of protecting citrus groves from frost damage under varying conditions that exist throughout the major citrus areas of the state. This is being done to determine the conditions under which benefits from frost protection to the growers are greater than the costs, and the conditions under which the costs are greater than the benefits. These are timely questions which can be answered only by economic research.

The phenomenal increase in California's cotton acreage has made this state a leading producer. This phenomenon has had a marked impact on our agriculture. In the San Joaquin Valley, significant shifts in production have occurred. At the same time, important changes in the use of equipment have developed. The mechanical cotton harvester is a good example.

We are now making an intensive study to evaluate the economic influence of mechanical cotton harvesting on the earnings of individual producers and on farm organization. This involves the measurement of factors, such as relative costs and picking rates for comparison with figures on hand-picking of cotton. Matters such as effects of mechanical harvesting on grade and amount of field loss are also considered. And special problems concerning defoliation, influence of weeds, and cultural practices are recognized and evaluated. The figures and facts studied and analyzed are obtained from a sample of operators using mechanical harvesters. Thus, the results of the study reflect actual operating experience. In that manner, the findings



provide others with realistic information which can be used in making their own plans and improving their operations and income.

LAND ECONOMICS AND CONSERVATION

Conservation is a subject that has received much publicity, especially during the past decade or two. It is of great importance to the individual farmer, as well as to the state and nation. Wise use of our natural resources is a difficult but necessary field of study. And we have several current projects bearing upon this area of work.

One of these projects is concerned with finding out how to measure the direct benefits of soil conservation. As a case study, work is progressing on determining the effects on yields of apple trees as a result of conservation practices. Consideration is being given to age distribution, such natural factors as soil and climatic characteristics, and management practices. The objective is to determine the effects of conservation management practices on the costs and returns for different natural conditions.

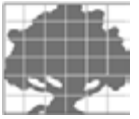
Associated with the general questions of conservation of natural resources and land economics is the problem of utilizing ground water. This is of crucial importance to California. Use of ground water in this state has led to serious depletion. As a result, falling water tables, increased costs for pumping, deterioration of water quality, deeper wells but still insufficient supplies, and competition for remaining supplies have all occurred.

Much work has been done by engineers and geophysicists on ground water. But the economic and social aspects have been neglected or have been dealt with inadequately. One of our current projects concerns the economic aspects of this ground water problem. This involves an appraisal of the physical, economic, social, and legal aspects. Work is progressing substantially on a regional analysis of ground water basins such as the Santa Clara Valley, the South Coastal Basin, and the southern San Joaquin Valley. When completed, it should contribute to a better understanding of our ground water problems.

As a final example of some of the work we are doing on the economics of land, we may note a project on public-grazing-land tenure in the western states. Most people do not realize that about 40% of the total land area of California is owned and administered by the federal government. A major use of this land is for grazing by private ranchers and farmers. Hence, there are problems in tenure and utilization. Economic research studies are being carried on to provide leads to the efficient and equitable use of these public lands in grazing.

MARKETING

Farm management and production and conservation and land economics, subjects we have just briefly touched upon, are important. But they are part of a larger picture—the economic system. Another important part of this complicated economic system is the marketing structure concerned with getting farm products from the primary producers to the ultimate consumers. Interest in agricultural marketing has increased tremendously in recent years and many research projects have been initiated. Some of them are specialized and deal only with local problems, while others are of general interest. But nearly all of our marketing projects are concerned with one or more of



the following four points: (1) whether any particular operation or process could be performed at a lower cost without sacrificing standards of quality and service; (2) whether the market operates smoothly, quickly, and effectively in equating supplies of and demand for farm products both in the short run and in the long run; (3) to what extent new techniques affect established marketing practices and the supply and demand for particular products; and (4) how specific types of governmental activities affect the efficiency of marketing operations and procedures. As examples of several of our marketing projects, we may note the following:

Large proportions of the fresh fruits and vegetables produced in California are sold on a nationwide market. This requires an elaborate handling, transporting, and selling system, the costs of which absorb an important part of the price received on eastern markets. More than half of the costs of placing these California products on eastern wholesale markets are accounted for by such local marketing operations as grading, packing, precooling, and loading for shipment.

The type of marketing costs considered here may be reduced through better organization and integration of existing facilities or through the development and use of improved methods. As a part of the program pertaining to marketing costs and efficiency, we are making a detailed economic analysis of operations in a number of deciduous-fruit packing houses. Economic statistical analyses are being made of daily volumes of plant output and daily labor use; the costs of materials, power, and operating expenses; investments; and annual costs for buildings and equipment. The data are being analyzed to determine how the costs of specific packing house operations are influenced by such factors as plant capacity and volume handled, the organization of space and equipment, and the work methods. The statistical analyses are supplemented by engineering studies of plant layout, equipment, and methods, and also supplemented by studies of the effects of proposed plant reorganizations on operating costs. Time and motion studies of key operations are included. This project, upon completion, is expected to provide leads for improved efficiency and lower costs in packing house operations.

We are also conducting economic research studies on citrus packing-house operations and their allied activities. This research includes a series of separate but related phases, all bearing upon improved efficiency in citrus marketing operations. Some of the phases are a re-examination of packing techniques in orange houses, revised sampling techniques for use in juice plant operation, both with respect to equity problems and blending techniques, and bulk handling problems. The very recent but important changes occurring in the citrus industry emphasize the need for continued stress on economic efficiency in production and marketing.

There now are a considerable number of livestock auctions in California—as many as about eighty. Hence, we are making an economic appraisal of the part such auctions play in the marketing of livestock. Data have been collected in the field to study the following types of questions: volume, kind, and class of livestock consigned to auctions by different types of consigners and purchased by different types of buyers; types of transportation used in moving livestock to and from the auction, the areas from which the livestock are received, and the feeding, weighing, pricing, and other marketing practices followed at the auction; the proportion of the various types of



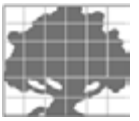
livestock bought and sold in different size lots, by types of sellers and buyers; the volume, character, and seasonality of livestock marketed through auctions; organization and methods of operation of livestock auctions; and the kinds of services rendered by auctions and the charges made for such services. These detailed objectives are listed for this project, only to illustrate some of the ramifications involved in one of our economic studies.

While on the topic of livestock marketing, we might note an economic study we are making on poultry meat marketing in Southern California. This is concerned with analyzing the pricing and price-making process for poultry in the Los Angeles area. In addition, we are looking into the competition between fresh and frozen poultry meat at wholesale and retail. A substantial proportion of the poultry consumed in the Los Angeles area comes from the Midwest. Prior to World War II, shipments of live poultry came into the Los Angeles market. Sharp increases in freight rates have encouraged more processing to be done near production areas. Hence, the majority of shipments of poultry now are in an eviscerated, cut-up, frozen form. This competes with freshly killed poultry produced locally. Here we have an example of how interregional trade and changes in marketing practices bring new problems for study.

Among the various livestock products of importance to California and on which we work is the group known as milk and milk products. Milk marketing has long been a significant area of work for us, and remains so. Since milk prices in California are established by a public agency, and not set on a free market, it is essential that analyses be made to determine the importance of economic factors which are no longer free to express themselves through the mechanism of price. The continued existence of "improper" prices and price relationships may result not only in failure to bring about the desired production but also in serious effects on utilization, the quality of the product, and the character and location of production. Hence, our economic research on milk and milk products is aimed at obtaining a more complete understanding of the contribution of the various complex interrelated forces and their effects upon the determination of milk prices. This involves research in price relations between markets, uses, pricing formulas, quality premiums, effects of fat differentials in terms of returns to producers, cost to distributors, and the general welfare of consumers, as well as the influences of health and sanitary requirements on the prices and supplies of milk. A mere listing of these factors serves to emphasize the complicated nature of the economic problems being studied.

In California, over 1,125,000 tons of fruits and tree nuts are marketed annually in fresh form. About 2,300,000 tons of vegetables for fresh consumption are produced annually in this state. Thus, a total of almost 3.5 million tons of fruits, tree nuts, and vegetables are marketed for fresh consumption. Cash receipts to California farmers from these marketings amount to a very substantial portion of the state's agricultural income. In view of the great importance of the fresh fruit and vegetable industries to our state, we are making studies of the behavior of prices and margins of such farm products.

One of those studies is now concentrating on the marketing channels and margins for fresh fruits and vegetables marketed within California. We are investigating the movement of selected products from the producing area to the consumer. For



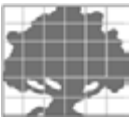
example, how does Imperial Valley lettuce get to a retail store in Madera? Does it go through Los Angeles or Fresno, or through both those cities? Is there a substantial amount of crosshauling and backhauling that might be eliminated to obtain more efficient marketing? We are also looking into the types of buyers and sellers, and their relative importance, involved in the state's marketing business for these fresh fruits and vegetables. A third point being studied is the size of the marketing margins taken by dealers before the fruit or vegetables reach the retail store. For example, if lettuce moves from the grower to a shipper, then to a jobber, and then to a retailer, what are the average margins charged by the shipper and jobber? Study of such questions provides information for making our marketing system more efficient for the benefits of producers, middlemen, and consumers.

Another one of our marketing projects is concerned with the shipment of fresh citrus fruits—oranges, lemons, and grapefruit—to the major eastern markets. Although California is a major citrus producing and marketing area, we must face heavy competition from other producing areas, such as Florida and Texas. Thus, it is important that we not only understand the behavior of citrus prices in general, but that we must also know of the differences which exist in the prices and the marketing of our citrus fruit compared with that from other states. How do the marketing margins for California oranges compare with those for Florida oranges? What are some of the impacts of the increased use of canned juices and fresh-frozen juices on the consumption and prices of fresh oranges? Another phase of this study is the relationships between the daily and weekly changes in prices at the f.o.b. wholesale and retail levels. For example, many people believe that when the wholesale price goes up, the retail price goes up quickly, but when the wholesale price goes down, the retail price tends to lag behind. What are the facts? Only careful investigation of actual conditions and developments in the markets can give the answers. With the factual information, we are in a better position to appraise and improve our marketing practices.

PRICES AND STATISTICS

Among our research projects are a number of continuing studies on the factors that affect the annual average prices of our farm products. Those studies include statistical analyses of the supply and demand for products grown in the state. The results of such investigations provide the California agricultural industries with economic-statistical information for use in the formulation of production and marketing policies and plans. Particular mention might here be made of the orange and lemon demand studies which are used by the federal administrative committees, as well as marketing agencies, in their shipment planning; the canned cling peach studies which are used by grower associations, canners, and the Cling Peach Advisory Board in their discussions; the canned asparagus studies which are used by canners and growers. Similar statistical studies are made for canned apricots and canned pears, and for almonds. All of these types of price analyses are prepared and revised for use by various groups active in the state's agriculture. The work requires careful analysis and measurement, using the best available methods and techniques.

In addition to these types of investigations, we undertake the compilation and review of various statistical series of importance to California agriculture. Such data are necessary to chart the trends in production, shipments, uses, and prices of the



many commercial crops produced in the state. The figures are compiled for the various farm products on which we work. Also, we have prepared and are keeping up to date on a comprehensive set of index numbers on major aspects of the state's agriculture. These index numbers measure, for the state as a whole, changes in production, shipments, and prices, by major commodity groups as field crops, fruits, vegetables, and livestock and livestock products.

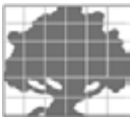
COMMODITY STUDIES

Along with our economic research in farm management and production, land economics and conservation, marketing, prices and agricultural statistics, we prepare and issue commodity studies. They review the trends in production, shipments, uses and prices, and present an evaluation of the current situation and outlook for the respective commodities. These studies are based on comprehensive economic research, and involve careful analysis, but are presented in circulars for wide distribution to farmers, distributors, and others engaged or interested in California agriculture. These situation and outlook studies cover a wide range of California farm products. Examples include apples, asparagus, avocados, dried beans, eggs, grapes, lettuce, milk and milk products, olives, peaches, pears, plums, tomatoes, walnuts, sheep and wool. We are now preparing a comprehensive situation and outlook bulletin on lemons, which will be followed by one on oranges. We are also making a detailed economic analysis of the complicated interrelations existing among the grape industries, including wine, raisins, and fresh-shipped grapes.

These commodity-situation studies emphasize the trends in our farm products, including many that are specialty crops for which we are the dominant or a leading producer. But in order to evaluate, in a well-balanced manner, the situation and outlook for one of our crops, it is necessary to have an adequate picture of the national situation, and even the international situation for some crops. For that reason, we must be cognizant of the trends in such items as national income, industrial production, employment, and the general price level. Adequate emphasis on such factors is a necessary part of our economic research in order to provide useful information for the state's agricultural industries.

AGRICULTURAL POLICIES AND PROGRAMS

Another phase of our economic research which merits mention is the area of agricultural policy. It is well known that national and state legislation, in recent years especially, profoundly affects our agriculture. National agricultural policy on production, price supports, and marketing agreements is a subject of wide significance and interest. California also has its own legislation on marketing agreements and orders. These types of governmental influences are major aspects of some of the agricultural industries in this state. For those reasons, we make studies to analyze the effects of such government activities upon our agriculture and other parts of our economy. Our objective is to provide farmers, agricultural leaders, legislators, national and state officials, as well as the general public, with more adequate bases for making intelligent and constructive decisions on policies affecting or pertaining to the nation's and state's agriculture.



STAFF OF THE GIANNINI FOUNDATION
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THE GIANNINI FOUNDATION OF AGRICULTURAL ECONOMICS

Minutes of the Regents of the University of California

APRIL 22, 1966

This report was contained in the minutes of the meeting of the Regents of the University of California on April 22, 1966. It was probably written by Loy L. Sammet, who was the director of the Foundation from 1963 to 1967.

A gift that may be unique in the history of agricultural research in American universities established the Giannini Foundation of Agricultural Economics as an endowed agency of the University of California and financed construction of the building that houses all activities in agricultural economics at Berkeley.

The Foundation came into being on February 2, 1928, when the Regents of the University of California accepted a grant of \$1.5 million presented by the Bancitaly Corporation of San Francisco as a tribute to its founder, Amadeo Peter Giannini. Giannini Hall and the Foundation, still carrying on essentially the aims defined in the original grant, are memorials today to the late Mr. Giannini.

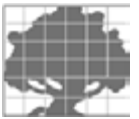
ORIGIN AND OBJECTIVES

During its early years and through the first quarter of the twentieth century, the College of Agriculture had devoted most of its energies to increasing food production in California—developing better varieties of fruit and vegetables, improving livestock feeding methods, and working on disease control for both plants and animals. Rapid decline in prices after World War I focused attention on agriculture's economic and social problems.

Farm management studies were established in the College of Agriculture in 1914. A Division of Rural Institutions was established in 1915, and about five years later a Division of Farm Management. In 1925, the combined Division of Agricultural Economics was formed. Resident teaching, research, and extension work in the field were clearly defined and their importance as a special field of endeavor was recognized.

Problems of agriculture multiplied in that post-war period. Then, in 1928, the gift of A.P. Giannini brought to the program private endowment funds. The income from those funds remaining after construction of Giannini Hall contributed much support to the needed expansion of research into the economic problems of agriculture.

The documents that created the Giannini Foundation established a broad framework for research. Activities to be embraced by the Foundation were declared to include studies of the economics of production and marketing of agricultural products, the relation of the agricultural sector to the economy of the United States as a whole and to the international economy, and the economic and living conditions of farm families.



The 1928 grant agreement laid down these further objectives: “It should be understood that the activities of the Foundation are to be regarded as chiefly (a) those of research, with the purpose to find the facts and conditions which will promise or threaten to affect the economic status of California agriculturalists; and (b) those of formulating ways and means of enabling the agriculturalists of California to profit from the existence of favorable facts and conditions, and to protect themselves as well as possible from adverse facts and conditions.”

“Teaching activities will undoubtedly be called for, certainly to prepare promising students to assist in carrying on the work of this Foundation, and also for service in wider spheres; but it is understood that said teaching service will be conducted largely or if practicable wholly upon the basis of funds made available to the College of Agriculture from other sources.”

The 1928 document called upon the university, in selecting members of the staff of the Giannini Foundation, to appoint “the most competent persons whose services are available, without restriction as to citizenship or race.”

ORGANIZATION

Following an express wish in the grant agreement, the university has developed the Giannini Foundation in “intimate association” with all activities in agricultural economics. Since early days, administrative functions for both teaching and research in this field, including the activities of the Foundation, have been combined in one person appointed as both chairman of the Department of Agricultural Economics and director of the Giannini Foundation of Agricultural Economics. Staff members of the department hold appointments also on the staff of the Foundation. Similarly, forest economists in the School of Forestry, agricultural economists in the School of Forestry, and agricultural economists of the Agricultural Extension Service are associates of the Giannini Foundation.

While the headquarters of the organization are in Giannini Hall on the Berkeley campus and all agricultural economics activities were once centered there, the staff and its activities now extend to the Davis campus.

An important feature of the Foundation’s activities, and one of the earliest, is the Giannini Foundation of Agricultural Economics Research Library. The Library, established in 1930, is believed unsurpassed in the world in agricultural economics and related fields, with its collections of approximately 12,000 books, more than 2,000 serials—including 700 periodicals—and a large collection of pamphlets.

Income from the Giannini endowment—the approximate two-thirds of the \$1.5 million grant that remained after completion of Giannini Hall in 1930—supports the library acquisitions and staff of librarians, the publications program, the Giannini Foundation fellowships, and related activities. Remaining income is merged with other funds of the Department of Agricultural Economics, as are the department and Foundation activities. For example, the Giannini Library collections and staff serve graduate students in the department and aid faculty members—both in the department and Agricultural Extension Service—in their research. In turn, research by graduate students in the department contributes to the wealth of economic knowledge in the library.



FOUNDATION ACTIVITIES AND ACCOMPLISHMENTS

Over the years, Giannini Foundation research has covered many important areas: the demand for agricultural commodities, market control programs for fruits and vegetables, dairy marketing and efficiency, plant costs and efficiency, objective crop forecasting, land economics and conservation, agricultural policy, farm organization and management, recreation, urban growth and urban-rural interaction, interregional and international trade, applications of computer science to analysis of agricultural economic problems, natural resource development and utilization, cooperative organization and management, and the economics of bargaining cooperatives.

From its beginning, the Foundation has been a vital fact-finding agency serving all of California agriculture. Information developed and analyzed by Giannini Foundation economists has been an important contribution to the sophisticated planning and decision making demanded by California's large and complex agricultural industries and by individual farm enterprises on the California scale.

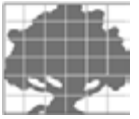
Some examples indicate the nature of these Foundation studies in farm management. A notable one in the period following World War II involved the phenomenal increase in the state's cotton acreage. California became a leading producer, and major shifts in farm production patterns occurred, particularly in the San Joaquin Valley. Mechanical harvesting of cotton became a key factor in farm management. The Foundation launched an intensive study of the influences of mechanical harvesting on individual producers and farm organizations. This included measurement of relative costs and picking rates in comparison with hand-picking, effects on grade and field losses, and costs and effects of defoliation, influence of weeds, and cultural practices.

In the area of land use and conservation, Foundation researchers have sought to measure the benefits of soil conservation, evaluate the effects of ground water depletion, and study the economic effects of tenure and use of public grazing land.

Especially in this area, the use and development of natural resources, the Giannini Foundation research program has been evolving, reflecting the changing environment in which agriculture functions. Patterns in the use of rural open space and attitudes of people toward natural resources are changing. Recent research reflects the interactions of urban and rural demands and uses. The effects of reapportionment and emphasis on urban needs in national policies have demanded growing interest in the city's impact on agriculture.

The area of agricultural marketing accounts for a large share of the Foundation's research activity. For example, a great share of the fresh fruits and vegetables grown in California is sold in a nationwide market. This requires an elaborate handling, transporting, and selling system. Its costs in relation to plant technology, size of plant, and other cost determinants have provided guides to increased efficiency. The studies also have been recognized as an important contribution to methodology in economic analysis.

Through statistical studies, Foundation economists have charted the trends in production, shipments, uses, and prices of many commercial crops grown in the state and have developed statistical measures of the relation of product price to such



factors as quantity sold, the prices and quantities sold of competing commodities, and the level of national income. Largely through early work in this area, Foundation economists established leadership in the development of quantitative measures in agricultural economic analysis.

Agricultural policy has been a major interest. National and state legislation, such as that concerned with production, price supports, and marketing agreements, can profoundly affect agriculture's well-being and the state's economy. The objective of Giannini Foundation researchers has been to provide farmers, agricultural leaders, legislators, national and state officials, and the general public with more adequate bases for making intelligent and constructive decisions on policies influencing agriculture in the state and the nation.

Since the Giannini Foundation came into being, some 2,000 research reports by staff members have represented the development of new economic knowledge and its application in the analysis of California farming and marketing problems.

SEVEN DIRECTORS

Direction of the Giannini Foundation was an added activity of Dr. Claude B. Hutchison, then dean of the College of Agriculture and director of the Agricultural Experiment Station. In 1933, the directorship of the Foundation was separated from the duties of Dr. Hutchison, and Dr. Howard R. Tolley was its administrator.

Dr. Tolley served from 1933 to 1938. He was followed by Dr. Carl L. Alsberg, 1938–1942; Dr. Harry R. Wellman, 1942–1952; Dr. Raymond G. Bressler, 1952–1957; Dr. George L. Mehren, 1957–1963; and Dr. Loy L. Sammet, current director and department chairman.

TEACHING ASPECTS

While resident instruction is in the province of the Department of Agricultural Economics, the teaching function is closely intermingled with work of the Giannini Foundation. This is particularly true of graduate instruction, which is now carried on to the Ph.D. degree on both the Berkeley and Davis campuses.

In its relationship with the teaching role of the department, the Foundation has made substantial contributions in other nations. Until recent years, this was limited to the distribution of published research and the consultative and educational contributions of individual staff members on missions abroad. Since 1960, however, the Foundation itself has been involved in a cooperative program of graduate instruction in agricultural economics in Italy. Each year members of the Giannini Foundation staff have been resident at the Centro di Specializzazione e Ricerche Economico-Agrario per il Mezzogiorno, a joint project of the University of Naples, the Italian Ministry of Agriculture, the Ford Foundation, the Organization for European Economic Cooperation, and the Giannini Foundation. The Foundation also is participating in the United States' AID-California program in Chile.



AGRICULTURAL ECONOMICS IN THE UNIVERSITY OF CALIFORNIA, BERKELEY

Loy L. Sammet

MARCH 1985

Loy L. Sammet contributed this history to an event commemorating the seventy-fifth anniversary of the founding of the American Agricultural Economics Association.

Sammet was professor of agricultural economics from 1958 to 1976 and was director of the Giannini Foundation from 1963 to 1967.

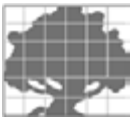
This essay on the development of agricultural economics as a field of study in the University of California, Berkeley, is a contribution to the seventy-fifth anniversary of the founding of the American Agricultural Economics Association (formerly the American Farm Economic Association). It reports mostly on the early events and key individuals involved, as well as on significant programmatic changes in this field at Berkeley. Only brief reference is made to the present as it is still unfolding, and those presently involved, rather than the historical record, can best speak on it.

EARLY CHRONOLOGY AND ACTORS

Full appreciation of the development of agricultural economics as a field of study in the University of California, Berkeley, requires brief consideration of the origins of the university itself. It was established by legislative enactment and signed into law by the governor of California on March 23, 1868. This law, known as the “Organic Act,” brought together in a University of California the already functioning College of California and a previously legislatively authorized (but never established) College of Agriculture, Mining, and Mechanical Arts. The College of California was a private, liberal arts college established by a small group of East Coast intellectuals. The College of Agriculture, Mining, and Mechanical Arts had been authorized in response to the Morrill Act of 1862 that established the land grant university and college system.

Instruction in the university began in 1869 at the campus of the College of California in Oakland. The first classes at the present site in Berkeley were offered in 1873. For roughly seventy-five years, the Berkeley campus continued as the teaching and administrative center of the university, although peripheral activities were introduced fairly early. Thus, a University Farm was established in Davis Township (the present site of UC Davis) in 1905, and nondegree (high school level) instruction in agriculture was begun there in 1909. A Citrus Experiment Station was established at Riverside in 1907, and a branch of the university was established in Los Angeles in 1919. For several decades, research and teaching in agriculture were conducted at these locations—in some instances in conjunction with established teaching programs at Berkeley—but always under academic and administrative control of the president at Berkeley.

As the university grew in size and the economy of the state developed, the branch at Los Angeles became a university campus including a small activity in agricultural economics. Later, its programs in agriculture were phased out



or transferred to Davis or Riverside. Following World War II, the Davis activity was reorganized as a general campus of the university (1959) and was designated the principal agricultural campus of the university. Riverside became a general campus in 1960. With these changes and the creation of five other campuses in the university in the period of rapid growth following World War II, many administrative functions and control of instruction were decentralized to the individual campuses. However, there still remains an agricultural-research-coordinating function statewide in the Agricultural Experiment Station and a statewide-administered program in Cooperative Extension. These two broad-range functions—along with the university’s system of land and water reserves and the agricultural field stations—are now administered in the universitywide Division of Agriculture and Natural Resources.

ECONOMICS AT BERKELEY

Although economics was slow to emerge as a field of specialization at Berkeley, related course offerings appeared in “Announcements of the College of Letters” as early as 1875/76. The Register of the university in that year referred to a one-year senior course in “Political Economy.” It was taught by Bernard Moses, a professor of history, who a year later was listed as “Professor of History and Political Economy.” However, the content of this course is unclear as there was no course description in successive issues of the Register until 1883/84. In that year, the course in political economy was described as providing “a general view of the principles and laws of political economy in the present position.” And, at the same time, a second course was announced: “Advanced Political Economy: A critical study of the history of Economic thought.” In present-day terminology, economics as a field of study finally appeared in the Register for 1888/89. This was in the announcement of two new courses: “Economic Theory: Critical study of writers and systems; discussion of unsettled problems in political economy; socialism . . .” and a companion course, “Economic History: The economic and industrial history of Europe and America since the Seven Years’ War; historical and statistical investigation of practical economic questions.” There was a continuing elaboration of work in economics as the university developed.

Of interest with respect to agriculture was the prescription of the two 1883/84 courses in political economy as requirements in the curriculum in agriculture and the introduction in 1904/05 of a new course in the College of Letters: “American Agriculture: Leading factors in the development of agriculture in the United States and a study of its present condition from an economical point of view . . .” These developments imply early recognition of the importance of economics as an aspect of education in agriculture.

AGRICULTURAL ECONOMICS

If economics evolved slowly as a discipline in the university, this was even more so in regard to agricultural economics. A candidate as the “first course” in the field was introduced in the College of Agriculture (also, the single teaching department in agriculture) in 1908/09. This course was described as “Farm Management and Farm Policies 118. Lectures, recitations, and reports on agricultural methods, various farm



operations and systems, the management of farms and economic and social conditions in rural communities.” The course was given by LeRoy Anderson, professor of agricultural practice and superintendent of University Farm Schools. In the following year, the course was offered (with the reference to “economic and social conditions in rural communities” deleted) in a restructured Department of Agriculture in which teaching subdepartments were identified. The farm management course was listed under the subdepartment of agronomy.

In 1911/12, two additional courses in farm management were introduced: “121. Farm Management: Individual work upon special problems for a limited number of students” and “200. Farm Management: Research in economic management of farms.” The student should be able to spend at least one month continuously in farm census or survey in some section of the state.” Professor Anderson continued to teach Farm Management and Farm Policies 118 as well as the two new courses but in the following year, the first course in farm management was shifted to Mr. Hummel, an assistant professor of agricultural education.

An important development was the appointment of Thomas Forsyth Hunt as dean of the College of Agriculture (1912–1923). Significant development occurred under his administration, including the emergence of a defined field of agricultural economics in the following two years. In 1914/15, the first course in farm management (118) was assigned to a newcomer, R.L. Adams, assistant professor of agronomy, who later became professor of farm management and who was to head a new subdepartment of farm management announced in 1919/20. Meanwhile, the 1915/16 announcement of courses in the College of Agriculture introduced a new subdepartment (division) of rural institutions in which two courses were offered. One was described as “201. Cooperative Marketing: Study of farmer cooperative organizations, especially those organized for the purchase of farm supplies and selling of farm products and legislation of different countries designed to improve marketing facilities.” The second course was “Rural Credits and Land Settlement: A study of the rural credit and land settlement policies of other countries and of methods and policies of other countries and of methods and policies needed to promote rural development in the United States.”

Both courses were offered by Elwood Mead, newly appointed professor of rural institutions. Mead later was joined by William R. Camp, assistant professor of rural institutions, and Henry E. Erdman (1922), associate professor of rural institutions. Other additions in 1923 to the faculty of the College of Agriculture of particular interest in agricultural economics were Edwin C. Voorhies, first appointed as assistant professor of animal husbandry and assistant to the dean, and David Weeks (with a master’s degree in agricultural engineering and later a doctorate in agricultural economics), who was appointed as associate in rural institutions. Both later were appointed as assistant professor of agricultural economics (Voorhies in 1927 and Weeks in 1928). A particularly important appointment in 1925 was that of Harry R. Wellman as specialist in Agricultural Extension. He became an associate agricultural economist in the Experiment Station in 1936 and associate professor of agricultural economics a year later.



Mead resigned his position in the university in 1924 to accept appointment as commissioner of the newly formed U.S. Bureau of Reclamation. He was followed as chairman of the Division of Rural Institutions by Henry Erdman (1926–1930).

Whether the appointments in the 1920s were consciously preparatory or merely led to a restructuring of work in farm management and rural institutions is unclear. However, it is noteworthy that the major in rural social economics was changed in 1924 to a major in rural economics and there is no doubt that the establishment in 1925 of a subdepartment (division) of agricultural economics in the College of Agriculture was a landmark event.

This is especially so when coupled with the 1928 gift of \$1.5 million by A.P. Giannini (via Bancitaly) for the establishment in the university of a Giannini Foundation of Agricultural Economics. The gift called for use of up to \$500,000 for construction of a building on the Berkeley campus to be known as Giannini Hall, with the remainder to be placed in university endowment for support of research and teaching in agricultural economics.

Claude B. Hutchison, a plant scientist, was appointed as first director of the Foundation (1928). Hutchison quickly set out to expand the staff. John D. Black declined appointment, but Howard R. Tolley and George M. Peterson were successfully recruited in 1930; Ellis A. Stokdyk and James M. Tinley in 1931; and Murray R. Benedict and Howard J. Stover in 1932. John K. Galbraith served briefly as a teaching assistant in an emerging branch program at Davis (1933). Roy Smith was appointed to the department faculty at UCLA. In 1937, Carl M. Alsberg was recruited from the Food Research Institute, Stanford University, to become professor of agricultural economics and director of the Giannini Foundation. He was soon followed by a young Stanford Ph.D., Sidney Hoos, who had studied under Alsberg and was appointed assistant professor of agricultural economics at Berkeley in 1939. He was preceded by Siegfried von Ciriacy-Wantrup, who was appointed to the faculty in 1938.

Meanwhile, Claude B. Hutchison had moved on to become dean of the College of Agriculture (1930). He was replaced by Howard R. Tolley (1931–1936) as director of the Giannini Foundation; and during periods of leave for Tolley and until the appointment of Harry R. Wellman as director in 1942, Benedict, Erdman, Voorhies, and Wellman served as acting directors of the Giannini Foundation.

Other distinguished appointments were made immediately following the onset of World War II. These included George M. Kuznets and George L. Mehren (1942). After the war, Ivan M. Lee and Trimble R. Hedges (1947) joined the faculty, with Hedges resident at Davis, followed by Raymond G. Bressler, Jr., and Varden Fuller (1948), appointed at Berkeley.

In 1946, the Division of Agricultural Economics became the Department of Agricultural Economics, with Harry R. Wellman—who had served since 1942 as division chairman—continuing as chairman of the department.

As the university as a whole developed, the work in the agricultural sciences expanded rapidly at the university branch at Davis, especially in the years following World War II. In agricultural economics, a widening range of courses was made available at Davis. At the outset, the courses were taught (for the most part) by members



of the department resident at Berkeley but commuting to Davis on class days—usually by Southern Pacific Railway. Over time, numerous new appointments resident at Davis were made. These included, in addition to Hedges, D. Barton DeLoach (who transferred from the Los Angeles campus when its program in agricultural economics was discontinued), Harold O. Carter, Gerald Dean, Jerry Foytik, Ben C. French, Warren E. Johnston, Gordon A. King, Chester O. McCorkle, J. Herbert Snyder, and Stephen H. Sosnick. In addition, there were James M. Tinley and Edwin C. Voorhies, who had transferred to the Davis campus from Berkeley. As the activity at Davis grew, Hedges, Tinley, and French served successively as vice chairman.

In 1966, a separate Department of Agricultural Economics at Davis was established. Ben C. French, then vice chairman of the department, became the first chairman of the new department at Davis.

The Giannini Foundation, originally established as a University of California institution at Berkeley, had throughout this period served a universitywide function and has continued so to the present.

Over the period following Wellman's appointment in Extension agricultural economics, numerous other appointments were made in fields of specialization parallel to those of the department. These included Lee W. Fluharty, Arthur Shultis, and Burton Burlingame (farm management); Francis Wilcox, Alvin C. Carpenter, George G. Alcorn, Eric Thor, and Jerome B. Siebert (agricultural marketing); Gordon A. Rowe (marketing efficiency); John W. Mamer (agricultural labor); L.T. Wallace (resource economics); and George E. Goldman (community organization).

Meanwhile, a graduate program in forest economics was developing. Originally, it was administered in the Department of Agricultural Economics. Later this function was assumed by the School of Forestry. H.R. Josephson was the first Ph.D. recipient (1939) in this program.

PROGRAMMATIC DEVELOPMENT

ORIGINS

Not only was the emergence of agricultural economics in the University of California slow, its point of beginning is also imprecise. One could choose as a first offering the course introduced in the College of Letters in 1904 titled "American Agriculture," which was to cover, in part, a study of the present condition of agriculture from an economic point of view. Alternatively, the beginning point might be seen as the introduction in the College of Agriculture of Professor Anderson's course in farm management which, by description in the announcement, was to touch on economic and social conditions in farm communities. But the course also was to deal with "agricultural methods, various farm operations and systems and the management of farms." The latter reference, and Anderson's position as professor of agricultural practice and superintendent of University Farms, permits an interpretation of the course as one focused primarily on how to manage a farm and to have limited economic substance. This view would be consistent with a complaint that frequently—early and strongly—was pressed against the university by some members of the farming community. The university, as they saw it, was failing in its obligation to offer instruction in practical agriculture.



Some movement in the direction of agricultural economics may be read into the 1911/12 description of Professor Anderson's course through its reference to "accounting . . . and some topics in the rural economy" and into a new course offered by Professor Anderson on "research in economic management of farms." The research course referred to an expectation of at least one month continuously in "farm census or survey." In the following year, the description of Anderson's introductory course in farm management was further revised to include "the keeping of farm records and accounts, the advertising of products and markets and marketing." When the farm management course was taken over in 1914/15 by Adams, the course description inched a little closer to a significant content of economics in its reference to "a survey of the business aspects of farm management . . . capital . . . labor . . . marketing and farm accounts." However, the extent of economic content in this course may not have been substantial. Adams had come to the university after a period of employment in California as a fieldman in the Agricultural Experiment Station, director of research for the Spreckles Sugar Company, and assistant general manager of the Miller and Lux agricultural empire. The academic appointment followed a couple of years after completion of the master's degree at the University of California with a thesis on the sugar beet blight, a disease then threatening the California sugar beet industry. The circumstances—course description (and placement) and background of the instructors—at this stage imply continued emphasis on the organization of farm operations rather than economic aspects.

The formation of the subdepartment of rural institutions in 1915/16 was a major programmatic step and this was matched in 1919/20 by shifting the farm management courses from agronomy to a new subdepartment of farm management. The precursors of work in agricultural economics—in farm management, cooperative marketing, rural finance, and land settlement—were thus formally recognized in the organization of instruction in the College of Agriculture (still also the single department of instruction in agriculture).

REDIRECTION: I

Pivotal staff additions were made with the 1923 appointments of Henry E. Erdman as associate professor of rural institutions and of Harry R. Wellman as specialist in Agricultural Extension. These appointments were pivotal in the sense that both Erdman and Wellman brought keen analytical capabilities to the field. Erdman, whose field of specialization was in agricultural marketing and cooperative organization, was also strongly interested in economic theory of the firm, and this interest was expressed early in the reference to principles of economics that appeared in catalog descriptions of courses he gave in agricultural marketing and in his early publications. Wellman's unique contribution was the introduction of quantitative, statistical analysis of commodity price relationships in studies of fruit production and marketing in California.

The new directions introduced by Erdman and Wellman were strengthened in the new appointments following the establishment of the Giannini Foundation of Agricultural Economics. George Peterson's appointment as associate professor of agricultural economics in 1930 brought to the field at Berkeley a remarkably vigorous—even fierce—analytical intellect with a strong interest in the application of economic theory, while Howard Tolley in the same year brought skills, then still rare, in quantitative



analysis of economic data. Additional emphasis in the application of economic theory—in this instance in land economics and conservation of natural resources—came with the appointment of Professor S.V. Wantrup in 1938. Carl Alsberg's appointment as professor of agricultural economics and director of the Giannini Foundation in 1937 brought a person of outstanding intellect to the field (Alsberg is described in Wellman's oral history as "the most broadly educated person I have ever met."). Unfortunately, the Alsberg directorship was cut short by his untimely death in 1940. His two Stanford protégés (Hoos and Kuznets) remained and soon became leaders in the department and profession. Hoos' special contributions were to be in the application of the theory of the firm and of market structure and performance in the study of problems in production and marketing of agricultural products. Kuznets emerged as a pioneer in the introduction of increasingly sophisticated methods of quantitative economic analysis and of their application in appropriate theoretical context.

In the years immediately following World War II, further strength in economic theory was gained in the return from military leave of George L. Mehren, appointment of Raymond G. Bressler, Jr. (1948), and, in the field of econometrics and production economics, appointment of Ivan M. Lee. Varden Fuller's appointment in 1948 reinforced an essential element of concern for economic and political institutions affecting agriculture and brought to the Department of Agricultural Economics a strong interest in agricultural labor and a capacity for policy analysis.

The initial turn toward application of economic theory and the use of quantitative methods in studies in agricultural economics made in the early 1920s was interrupted during World War II but it was renewed thereafter with increased vigor in both research conducted in the department and in the curriculum in agricultural economics. An area of major application was dairy marketing, originally a field of specialization of James M. Tinley. Later, Raymond Bressler made highly original contributions in theory (especially its spatial aspects) and important practical applications were made by David A. Clarke. At both undergraduate and graduate levels, the curricula depended on the campus Department of Economics for instruction in general economics. Instruction in economic theory of the firm—oriented toward applications in agriculture—was given in the Department of Agricultural Economics. Economic theory provided the framework of applied work in agricultural economics with emphasis on the special fields of farm management and production economics, agricultural marketing, land and resource economics, and agricultural policy.

Increasing emphasis was given to quantitative methods. At the graduate level, pioneering courses in this area—later to become identified with the developing field of econometrics—became basic tool courses in the department. They were also introduced in the curriculum in economics at Berkeley by members of the faculty in agricultural economics. As the field of econometrics developed, adaptations of the departmental courses in quantitative methods were offered in the campus Department of Statistics by agricultural economics faculty. These early introductions in agricultural economics later evolved as standard courses in the Department of Statistics for students in the social sciences. During this period there was an interdepartmental coordinating committee, with representatives from agricultural economics, economics, business administration, statistics, and mathematics.



Programmatic developments in agricultural economics at Berkeley were reflected also in the department's activities at Davis. This was true in the undergraduate program first developed at Davis and in the Ph.D. graduate program introduced there in 1964. This is not surprising given the administrative and academic oversight from Berkeley and the fact that nearly all the appointees in agricultural economics at Davis after World War II were recent Ph.D. recipients from the department at Berkeley.

With the passage of time, shifts in emphasis in the two-campus program appeared. In reflection of general campus development and student interest, the program at Berkeley progressively gave less attention to farm management and agricultural marketing and more to resource, trade, and policy issues. At Davis there was continued emphasis on farm management, marketing, and market structure; an increasing concern about resource and policy matters; and a growing involvement in agribusiness management. At the time of separation in 1966, the program at Davis was well on its way in the development of the comprehensive program presently offered in agricultural economics, including its unusually strong component in managerial economics. An interesting aspect of this evolutionary process was the reverse flow in intercampus teaching contributions that brought to the Berkeley campus in the late 1950s and early 1960s teaching contributions in farm management and production economics from the youthful Davis faculty such as Harold O. Carter, Gerald Dean, and J. Edwin Faris.

During the transitional period, academic contributions through the Giannini Foundation were extended on a universitywide basis, including—through Agricultural Extension—work at the Riverside campus of the university. The Foundation also became recognized throughout the state as its principal and highly reputable source of economic analysis in agriculture. This was true even though, excepting a short initial period, the Foundation supported no academic professional staff. Its annual involvement income was instead used to support the Giannini Foundation Library, several publication series (e.g., the Giannini Foundation Monograph, the Research Report, and the Information Series), and graduate students. A national and international reputation in agricultural economics was in large degree established through the Giannini Foundation publication series and its library—still regarded as housing one of the most comprehensive collections in the field of agricultural economics.

An important additional factor was the department's Ph.D. graduates, who found employment mostly in universities at widely distributed locations throughout the world. The high quality of these individuals and the programmatic mix of theory and application in the department's Ph.D. curriculum put them in demand, particularly in the 1950s and 1960s, as this orientation became more widely accepted in other departments of agricultural economics.

The statewide role of the Giannini Foundation has recently been made more clear. It now is administered by an executive committee reporting to the director of the Agricultural Experiment Station. A promising new direction under the new organization is the establishment of a systemwide program of mini-grants, competitively awarded in support of new research initiatives.



EXOGENOUS AND INSTITUTIONAL FACTORS

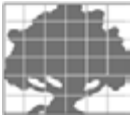
In retrospect, the appointments of Erdman and Wellman in 1923/24, establishment of the Giannini Foundation in 1928, and the economic crisis in U.S. agriculture in the two decades following World War I were critical factors in the development of agricultural economics in the University of California through the mid-1960s. As already noted, the Erdman and Wellman appointments introduced new perspectives at Berkeley in regard to economic theory and quantitative analysis as basic tools for applied work in agricultural economics. Establishment of the Giannini Foundation in 1928 brought a substantial increase in resources available in the field and greatly increased visibility. It also supported the appointments of unusually talented new faculty who, by good fortune or design, also were strongly motivated toward increased emphasis on economic theory and quantitative methods as a means of strengthening the academic and research programs in agricultural economics. One might even speculate that the economic depression itself influenced the availability of the new appointees who, under a more flourishing general economy, might have found greener pastures in other pursuits. With mixed feelings—one is uneasy with benefits flowing from major disaster—the economic collapse of the Great Depression may be seen as instrumental in bringing agricultural economics in the University of California to national attention.

Further motivation in this direction may have been expressed by Director Claude B. Hutchison's approach to John D. Black in January 1929, for appointment in the Giannini Foundation. Black declined saying, in part, that "if the University of California, or rather the Giannini Foundation, were in the Midwest, it would appeal to him somewhat stronger."

So much for foresight. In October 1929, the stock market collapsed and the economy entered a deep depression. By 1936, Howard Tolley was called to Washington, D.C., to assist in the newly created Agricultural Adjustment Administration (AAA). Wellman accepted a one-year assignment (1935) as chief of the AAA's general crops section. Benedict and Erdman emerged as national figures in the fields of agricultural policy and marketing and, somewhat later, similar prominence was achieved by Bressler and Mehren in marketing and Varden Fuller in agricultural labor and policy.

Through the 1950s and 1960s, the Department of Agricultural Economics in the University of California continued to grow in national standing as a leading institution in agricultural economics. Erdman (1929), Tolley (1933), Benedict (1941), Wellman (1953), and Bressler (1959) were elected to the office of president of the American Agricultural Economics Association, and faculty and graduate students were frequently honored by the association for quality of research and Ph.D. dissertations as well as for service to the profession. Together, ten members of the faculties of the Berkeley and Davis departments have been elected fellows of the American Agricultural Economics Association. The departments similarly have been active in the Western Agricultural Economics Association, a major contribution being a history of the association written by D. Barton DeLoach of the department at Davis.

Strategic appointments and fortuitous external conditions thus were important forces in the development of agricultural economics at Berkeley, and significant influence on the profession at large was generated. Meanwhile, the department and its



faculty were reacting to developments elsewhere in the social sciences, in the university, and in society generally.

The division of the two-campus department in 1966 involved recognition of enormous change in California following World War II. Over two decades, there had been rapid growth in population and in enrollments in the university. Seven new campuses had been established, including the creation of a general university campus at Davis. The Davis campus had been designated as the university's principal center for instruction and research in agricultural production and the related sciences, and the college at Berkeley had undertaken its modified focus on the agricultural sciences and assumed its new name—the College of Agricultural Sciences. Dramatic economic and population growth in the San Francisco Bay Area had transformed its once fertile coastal valleys from highly productive agricultural areas (primarily fruit, vegetable, nut, and dairy production) to a densely populated urban region. The campus at Berkeley became more effectively separated from the rural communities, and the composition of the student body and academic interests were correspondingly affected.

REDIRECTION: II

The new circumstances were reflected in the academic plan for the department at Berkeley, prepared during development of a comprehensive plan for the campus as a whole in 1966. The departmental plan noted a “growing involvement in issues of national importance, such as policies concerning farm income support and issues concerning the development and conservation of natural resources.” It acknowledged decreasing attention to the problems of the individual farm and more emphasis on the problems of an aggregative nature, such as those pertaining to industry groups; geographic regions; the spatial aspects of product pricing and the location of production; the integration of production, processing, and distribution activities; market structure and controls; and broad issues concerning the relations between the agricultural and nonagricultural sector.

REDIRECTION: III

An acceleration of programmatic trends in the department at Berkeley was reflected in a departmental academic plan statement of February 18, 1972. This plan was in response to an administratively inspired review by the College of Agricultural Sciences and the School of Forestry and Conservation that led in 1974 to a union of these two units in a new College of Natural Resources. In a background statement, the departmental plan noted the national, post-World-War-II commitment to “Food for Peace” and to the provision of technical and material aid in support of economic advance in underdeveloped countries.

Important domestic influences were identified, including the expanding multiple use of basic agricultural resources (mainly open-space land and water) and the direct impact of urban expansion. Reference, also, was made to the increasingly evident limitations of perfect competition as a model of economic behavior—in particular, the consequences of increased concentration in farm production, processing, and distribution activities. Also noted was the omission of nonmarket forces, such as governmental policy and expenditure decisions. Other elements of change included the problem of “externalities” deriving from the decisions of individual firms—for



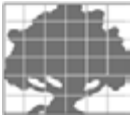
example, the social and employment impact of the introduction of labor-displacing machinery and the environmental and health degradation resulting from the use of agricultural chemicals. Impaired quality of water and land, soil loss, and excessive energy consumption also were among the major problem areas seen as being of great importance in the use of our natural resources and as subjects particularly appropriate for examination at Berkeley.

During this period of reassessment, the department proposed and obtained approval for a change in name to the Department of Agricultural and Resource Economics. In consonance with strong interest in the college in “interdisciplinarity,” the department abandoned its former undergraduate program in agricultural economics in favor of participation in two new college majors—conservation and resource studies and political economy of natural resources. In subsequent further reorganization of the college, the major in conservation and resource studies was elevated to departmental status and responsibility for the major in political economy of natural resources was assumed by the Department of Agricultural and Resource Economics.

The organizational and programmatic changes in the college—which were strongly influenced by members of the department faculty—were accompanied by extensive revision of undergraduate and graduate instruction in the department. Four areas of research and instruction now are emphasized. The long-standing interest in resources (particularly renewable natural resources) has evolved as a major field concerned with resources as a determinant of productivity in agriculture, forestry, and economic activity generally. An important aspect of this area is environmental economics. A second emphasis, involving an extension of past interest, is in economic development, particularly in largely agrarian Third World countries. Markets and trade constitute a third area of emphasis that is seen as an area of major importance in regard to the distribution of world supplies of agricultural products, U.S. policy with respect to our internal agricultural economy, and international trade as a whole. A fourth field of emphasis is in agricultural and food policy.

The new program in agricultural and resource economics has been well received. Undergraduate enrollments have exceeded the teaching resources of the department, requiring the institution of a process of “controlled” enrollment. At the graduate level, enrollment continues to press upon the department’s campus-assigned enrollment quota and the quality of student applicants remains exceptionally high. The department also is in an extraordinary situation with regard to its faculty—in part, a consequence of scheduled retirements, untimely deaths, and transfers of senior faculty that were concentrated in the late 1960s and early 1970s.

A program of faculty replacement was initiated in 1973 by then chairman James N. Boles, himself a 1950s recruit. A series of strong appointments followed, including that of Gordon C. Rausser, who followed Boles as chairman at Berkeley and who has virtually completed the restaffing effort. The result is a current faculty of unusual youthfulness, ranging from twenty-eight to fifty-five years of age and notably high productivity and quality—one in the forefront of association awards for quality of research and publication.



Output in academic research and teaching is notoriously difficult to measure. Numbers of students and publications can be counted, but quality—perhaps the most important variable—is less easily assessed and much of the evidence of quality often is lagged by a decade or more. The problem at Berkeley is further compounded by a university records management system that routinely (and necessarily) disposes of unneeded files. Therefore, unfortunately, materials of enduring value sometimes become the victim of periodic housecleaning and this has been so with respect to early departmental student records. However, it remains possible to count the number of doctoral degrees awarded in agricultural economics and its immediate predecessors, rural institutions and rural economics. Prior to 1950, a total of 24 Ph.D. degrees were conferred; in the 1950s there were 44; in the 1960s (through 1968) there were 91; and between 1969 through 1984 there were 124. In total, 283 individuals have, to date, received a doctorate in agricultural economics at Berkeley.

REFLECTIONS

In concluding this review of developments in agricultural economics at the University of California, Berkeley, two maxims come to mind. One is the time-honored phrase “the wheel turns.” To a substantial degree, this has occurred over the years in the field of economics at Berkeley. Its beginning was in name and substance in “political economy” as then constituted and an analogous manifestation—probably not in recognizable form by 1874 standards—has returned, this time not in economics but in agricultural and resource economics. Another prevailing notion is that institutions are inflexible and possibly no more so than universities, where the primary resource—the faculty—is tenured. In historical perspective, the university’s program in agricultural economics has demonstrated remarkable adaptability and resilience.

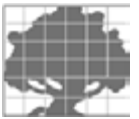
Change may have come at an uncomfortably slow pace at times, but over the span of years since the first instruction in the economics of agriculture was offered at Berkeley (whether it be 1904 – “American Agriculture,” 1908 – “Farm Management,” or 1915 – “Cooperative Marketing and Rural Credits and Land Settlement), agricultural economics at Berkeley has responded to change in the institutional structure of agriculture, to change in the physical and biological sciences affecting agriculture, and to change in technology in both industrial and agricultural production. It has adapted to the emergence of important resource and environmental issues, in part arising from population growth and technological change. And it has adapted to major forces within the university, induced by its own growth and the measures it adopted in response to change in its economic, social, and political environment. With possibly due modesty, the “institution” of agricultural economics at Berkeley can also be seen as one interacting with its profession, with its public constituency, and with the university and as a contributor, as well as responder, to change.

This kind of interaction may be read into contributions to administrative and academic development in the university made by Harry Wellman and Raymond Bressler. Impressive contributions of a scholarly nature and public service were made over a period of many years by John K. Galbraith. Another example is the extraordinary service in diplomacy made by Philip Habib.



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AGRICULTURAL ECONOMICS AT THE UNIVERSITY OF CALIFORNIA, DAVIS

Warren E. Johnston

MARCH 1985

Warren E. Johnston contributed this history to the event commemorating the seventy-fifth anniversary of the founding of the American Agricultural Economics Association. The statement was appended to the Berkeley history provided by Loy L. Sammet.

Johnston was professor of agricultural and resource economics at UC Davis from 1963 to 1994 and chair of the Department of Agricultural and Resource Economics from 1981 to 1987. He is currently a professor emeritus in the department.

The Department of Agricultural Economics at Davis initially operated as a branch of the Berkeley campus Department of Agricultural Economics. At Berkeley, the first course in agricultural economics offered was “Farm Management and Farm Policies,” an undergraduate course in 1909; a graduate course was instituted three years later. Undergraduate instruction in agricultural economics spread gradually to the Davis campus, with initial course offerings in production economics and farm management in 1929. By 1952, a full set of courses for the bachelor of science degree was in place on the Davis campus. In this early organizational structure for agricultural economics in the University of California, the chair of the single department was at Berkeley and a vice chair was in residence on the Davis campus, leading a small but growing contingent of teaching-research faculty.

The Davis department granted bachelor of science degrees during the 1950s. A master of science degree was approved in agricultural business management in 1958. Lacking a departmental doctoral program, Davis faculty continued to participate in graduate instruction at Berkeley, commuting on daily trains that then ran from the Sacramento Valley to the Bay Area. Many doctoral candidates relocated from Berkeley to Davis to work more closely with their dissertation supervisors at Davis.

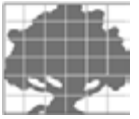
A doctoral program was subsequently approved for the Davis department in 1964 and independent departmental status for the Department of Agricultural Economics at the University of California, Davis, was achieved in early 1966 with Professor Ben C. French shifting from vice chair of the combined Berkeley-Davis unit to be the first chair of the Davis department. Establishment of departmental programs plus a growing variety and number of offerings at the campus in a rapidly growing College of Letters and Sciences helped to bring about an increase in undergraduate enrollment. By 1965, there were about one hundred undergraduates and thirty-five graduates enrolled in departmental programs with sixteen teaching-research faculty members offering approximately twenty undergraduate and ten graduate courses. There were also two members of the Agricultural Extension Service and three U.S. Department of Agriculture (USDA) Economic Research Service (ERS) economists associated with the newly emerged department.

All faculty appointments are split between the College of Agriculture and Environmental Sciences and the California Agricultural Experiment Station; all are full members of the university’s Giannini Foundation of Agricultural



Economics. Associated with the department are six Cooperative Extension and two USDA-ERS associates. The teaching program has nearly 500 undergraduate majors, most specializing in the very popular managerial economics option with lesser numbers in agricultural economics and in development, consumer, or resource economics. The department currently offers fifty-three undergraduate and thirty-six graduate courses. The master's and doctoral programs attract seventy to eighty students annually. The Ph.D. program, now celebrating its bidecennial anniversary, has gained a national reputation for the department's graduate program.

With the seventy-fifth anniversary of the American Agricultural Economics Association in 1985, the department will also celebrate its twentieth anniversary of independent status, marking a proud two-decade record of accomplishment in teaching, in research, and in professional recognition.



DEPARTMENT HISTORY: AGRICULTURAL AND RESOURCE ECONOMICS, UNIVERSITY OF CALIFORNIA, DAVIS

Colin A. Carter

1999

This short statement is contained in Ann F. Scheuring's Abundant Harvest: The History of the University of California, Davis, published by the UC Davis History Project in 2001.

Colin A. Carter is professor of agricultural and resource economics at UC Davis and is currently the director of the Giannini Foundation of Agricultural Economics. He was chair of the Department of Agricultural and Resource Economics between 1998 and 2001.

Agricultural economics developed as a discipline at Berkeley during the 1920s out of earlier studies in farm management. When Bank of America founder Amadeo Giannini endowed the Giannini Foundation at Berkeley in 1928, the study of agricultural economics at the University of California received a major boost.

At Davis, the first undergraduate instruction in the field began in 1929 with courses in production economics and farm management. By 1952 a full set of courses for the bachelor of science degree was in place. The master of science degree was approved in agricultural business management in 1958, followed by a doctoral program in 1964.

In 1966 the Department of Agricultural Economics at Davis became independent from Berkeley. At that time the department included sixteen teaching-research and Extension faculty and about one hundred undergraduate and thirty-five graduate majors. Under the guidance of early chairs Ben C. French, Herb Snyder, and Hal Carter, the department grew quickly in both size and stature. Teaching and research initially emphasized the production and marketing of agricultural products and the economic analysis of land and water use, but over the years new fields came into focus, including econometrics, operations research, demand analysis, agricultural labor, international trade, economic development, environmental economics, and agricultural policy. The department pioneered in the application of quantitative analysis to agricultural and resource economic problems and expertise in these difficult subjects has been a trademark of Davis doctoral graduates.

The Davis agricultural economics faculty has earned national and international recognition. Between 1979 and 1999, nine faculty members were selected as fellows by the American Agricultural Economics Association (AAEA): Varden Fuller, Harold O. Carter, Ben C. French, Oscar O. Burt, Gordon A. King, Sylvia Lane, Alex F. McCalla, Warren E. Johnston, and Daniel A. Sumner. Numerous faculty and Ph.D. students have won AAEA research awards, and several have served in prominent positions in UC administration, including C.O. McCorkle, Elmer Learn, Lawrence Shepard, Alex McCalla, Herbert Snyder, and Harold Carter.

The department administers a popular undergraduate program in managerial economics, which consistently ranks in the top five nationally. This program grew to nearly 900 students by 1999. In addition, about seventy-five



graduate students currently pursue master's or doctoral degrees in a graduate program that has attained international prominence. A recent survey ranked the Davis doctoral program second nationally and the master's program third. UC Davis was also ranked first in production economics; second in marketing, price analysis, and trade; second in agricultural policy; and fifth in resource economics—making it the only school to attain top-five rankings in four or more specialized fields. Davis Ph.D. graduates have been placed in every prestigious land grant university in the United States and have won more awards for outstanding dissertations from the AAEA than any other department.