

AGRICULTURAL ECONOMICS PROGRAMS AT 1890 INSTITUTIONS: CURRENT STATUS AND FUTURE DIRECTIONS

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Agricultural economics has long been a vital component of studies in agriculture at the 1862 institutions; in recent years, it has grown in importance at the 1890 institutions. All of the 1890 institutions currently offer a degree program or course of study in agricultural economics or agribusiness.

Agricultural economics may be defined as a branch of applied economics consisting of the application of economic theory and analytical techniques to agricultural and rural activities. Agricultural economics, as a discipline, had its auspicious beginning in the late 1800s and early 1900s. Formal education in agricultural economics began in Germany and in the United States in the latter part of the nineteenth century. In England, formal teaching in the subject began at the University of Cambridge in 1896 (The International Encyclopedia of Higher Education).

In the United States, the agricultural depression of the 1890s led to an intensification of study in agricultural economics, and in the early years of the twentieth century, agricultural economics as a field of study was taking shape. Henry C. Taylor is noted as the first professor of agricultural economics in a land grant institution and is considered the author of the first American textbook dealing with the principle of agricultural economics (Taylor). He taught his first course in agricultural economics at the University of Wisconsin during the 1902-1903 school year. The discipline is now taught at all of the land grant institutions. Graduates in agricultural economics are employed as teachers, researchers, or extension specialists at the land grant institutions in the United States. In addition, agricultural economists work in many offices and agencies of the United States Department of Agriculture, such as the Economics Research Service, Agricultural Marketing Service, Foreign Agricultural Service, Farmers Home Administration, Farm Credit Corporation, and Environmental Protection Agency. They are also employed on the staffs of many privately supported

universities and research foundations, trade organizations, and corporations.

To commemorate the centennial of the 1890 institutions, the general objective of this paper is to review their history briefly, to examine the current status of agricultural economics programs within the 1890 land grant system, and to discuss future directions if the programs are to remain viable.

HISTORICAL DEVELOPMENT OF 1890 INSTITUTIONS

On July 2, 1862, President Lincoln signed into law a bill, introduced by Congressman Justin Morrill of Vermont, to establish land grant colleges and universities. The intent of this legislation, formally entitled the Morrill Act of 1862, was to establish a land grant institution in each state to educate citizens in the fields of agriculture, home economics, the mechanical arts, and other applied professions. In addition, land grant universities were to generate new knowledge, to apply it to problems of society, and to extend that knowledge to others beyond academia. It was a tripartite mission: teaching, research, and extension (Schuh).

Because the southern states refused to allow blacks to attend institutions established under the Morrill Act of 1862, a second Morrill Act was passed in 1890, which authorized the establishment of separate land grant colleges for blacks. Seventeen southern and border states chose to have separate institutions, either by designating existing private black schools as the second land grant institution in the state, by designating existing state-supported black institutions, by assigning funds to existing private black schools and subsequently taking them over as state institutions, or by establishing new land grant colleges for blacks under state control (Payne). Sixteen of the black land grant colleges established under the 1890 law remain today. West Virginia State discontinued its black land grant college status in 1957 (Payne). Thus, the Morrill Act of 1890

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designated twelve previously existing institutions as land grant institutions and established five new institutions.

There are currently sixteen of these institutions, all having been established by 1909 (Table 1). Although Tuskegee University, a private institution, was not formally organized as an 1890 institution, it is, nonetheless, linked to the 1890 institutions in its purpose and structure. Thus, these seventeen institutions are most commonly referred to as the "1890 Institutions (or Black Land Grant Institutions) and Tuskegee University."

Growth and development of these institutions can be viewed in terms of the time it took to initiate four-year baccalaureate programs and graduate programs and to achieve regional accreditation (Table 1). Although twelve of these institutions were founded before 1890, only two (Alcorn State University and Langston University) had initiated a four-year program before the 1900s. By the 1940s, all of the institutions had initiated a four-year program. Alcorn State University, the first institution founded, did not achieve regional accreditation or initiate a graduate program until 1961 and 1975, respectively. Most of the institutions achieved re-

gional accreditation in the 1930s and all were accredited by 1963. The first institution to initiate a graduate program was Lincoln University (1940), and the last to initiate a graduate program was the University of Maryland-Eastern Shore (1978). As evident from the recent accreditation dates, the development and growth of the 1890s were slow. This chronological lag was primarily the result of differential legislation by Federal and state governments, which often denied the black land grant institutions funds and support to which they were entitled (President of 1890 Land Grant Colleges and Universities).

By law, the 1890 institutions were entitled to equitable division in funds earmarked to all land grant institutions. Unfortunately, the 1890 Morrill Act did not explicitly require an equal or proportionate division of funds administered under the Hatch Act of 1887, which had allocated funds for land grant colleges to establish experiment stations for research (Williams and Williamson). Moreover, funds to be allocated under the Morrill-Nelson and Bankhead-Jones legislations, which supported the 1890 institutions' resident teaching, were determined by the states, and these funds were not distributed pro-

Table 1. Development History Of 1890 Institutions And Tuskegee University

Name Of Institution	Year Founded	Initiated 4-Year Program	Initiated Graduate Program	Achieved Regional Accreditation
Alabama A&M University	1875	1939	1958	1963
Alcorn State University	1871	1871	1975	1961
University of Arkansas-Pine Bluff	1873	1929	na	1933
Delaware State College	1891	1947	na	1957
Florida A&M University	1887	1909	1951	1949
Fort Valley State College	1895	1945	1957 ¹	1957
Kentucky State University	1886	1929	1972	1939 ¹
Langston University	1897	1897 ¹	na	1939 ¹
Lincoln University	1866	1935	1940	1935
University of Maryland-Eastern Shore	1886	1936	1978	1953
North Carolina A&T State University	1891	1925	1939	1936
Prairie View A&M University	1876	1901	1954	1958 ¹
South Carolina State College	1872	1924	1948	1960
Southern University	1880	1922	1957	1958
Tennessee State University	1909	1922	1942	1946
Tuskegee University	1881	1928	1943	1933
Virginia State University	1882	1943	1937	1933

Source: Mayberry, B. D. (ed.) *Development of Research At Historical Black Land-Grant Institutions*. Association of Research Coordinators, 1979.

¹Source: Williams, Thomas T., and Handy Williamson, Jr. "Teaching, Research and Extension Programs at Predominantly Black Land-Grant Institutions," 17 (1985) : 31-41.

portionately. For example, in 1979, Lincoln University received only 6 percent of the Morrill-Nelson and Bankhead-Jones funds allocated by the state of Missouri (President of 1890 Land Grant Colleges and Universities).

Historical data reveal that although legislation such as the Hatch Act of 1887, the Smith-Level Act of 1914 (funds for extension programs), and the Purnell Act of 1925 (made available larger appropriations for research in the economics of agriculture) earmarked funds to the 1890 institutions, the proportion received was minuscule (Payne).

It was not until 1967 that the 1890 institutions received permanent monies for research from the United States Department of Agriculture, which is responsible for administering formula funding for research and extension. The research programs received additional funding in 1972 when the Secretary of Agriculture, empowered by Public Law 89-106, awarded grants to the 1890 land grant institutions to carry out research in agriculture and the food sciences. Additionally, in 1977, as part of the Agricultural Research, Extension and Teaching Policy Act, Congress passed Public Law 95-113, Section 1445, known as the Evans-Allen 1890 Research Program. This legislation created permanent funding for the 1890s under the Hatch Act formula (Self-Study Report, North Carolina A&T State University). Congress authorized the 1890 institutions to receive not less than 15 percent of the annual appropriation for Hatch. Currently, Evans-Allen congressionally mandated funds are the major source of financial support for research programs at the 1890 institutions. For the fiscal year 1988-1989, \$23.5 million was earmarked for the 1890 institutions.

Although Federal funds are currently being allotted to the 1890 institutions, only three of these institutions are receiving state funds for research. All of the 1862 institutions receive state funds for research.

A lack of sufficient financial resources has affected every aspect of the 1890 institutions' past development and operation, including their ability to respond to a changing social and economic environment. At the outset, these institutions were little more than secondary schools offering the equivalent of a high school education. None of the institutions offered college-level courses until 1916 (Payne). Today, all the 1890 institutions have four-year programs, all are accredited, and all but three have graduate programs. Further, one institution (Alabama A&M University) has a doctoral degree program in agriculture. Additionally, four of the institutions have master's degree programs in engi-

neering, five have nursing programs, and one has a law school.

Despite the paucity of funds and other handicaps faced by the 1890 institutions, they are continuing to make significant contributions to higher education in this country. They currently have an annual enrollment of approximately 60,000 black students and graduate over 10,000 individuals per annum.

A substantial body of literature exists on the history of agriculture in the 1890 land grant institutions; however, historical accounts are scant when one focuses on specific fields of study within agriculture. A literature search for information pertaining to the historical development of agricultural economics programs at the 1890 institutions produced few published sources. Thus, a synopsis of the current status of agricultural economics programs at the 1890 institutions is presented. Moreover, this paper details some of the accomplishments and concerns of these institutions, as well as their involvement with teaching and research activities in agricultural economics.

METHODOLOGY

The data for this paper are chiefly the responses obtained from a telephone survey. The sampling frame for the survey consisted of informants from each of the 1890 institutions who were knowledgeable and articulate with respect to the current status of and recent changes in their programs. The informants consisted of department chairpersons, past chairpersons, and agricultural economics faculty members. The survey was conducted in the fall of 1989.

The telephone survey consisted of a combination of closed- and open-ended questions pertaining to the current status of agricultural economics programs and degree offerings at 1890 institutions. The survey questions were centered around various characteristics related to the 1890 institutions and their faculties. These included identifying the number of institutions offering bachelor's and master's degrees in agricultural economics, dates of program inception, enrollment status and growth, growth in faculty numbers, faculty level of education, number of tenured faculty, allocation of faculty time to research and teaching, the general thoughts/beliefs concerning current conditions of 1890 agricultural economics programs, and future perceptions of the program by 1890 administrators and faculty.

FINDINGS

The data in Table 2 reveal that only eight of the survey respondents provided information on the inception date of their program or degree offerings in

Table 2. Agricultural Economics/Agribusiness Degrees Granted At 1890 Institutions

Name Of Institution	B.S. Ag. Econ.	B.S. Ag. Bus.	M.S. Ag. Econ.	M.S. Ag. Bus.
Alabama A&M University	X	X	-	X
Alcorn State University	X (1972) ¹	-	-	-
University of Arkansas-Pine Bluff	X (1970s) ¹	X ²	-	-
Delaware State College	-	X ²	-	-
Florida A&M University	-	X	-	-
Fort Valley State College	X (1980) ¹	-	-	-
Kentucky State University	-	-	-	-
Langston University	X	-	-	-
Lincoln University	X	X ²	-	-
University of Maryland-Eastern Shore	-	X (1986) ¹	-	-
North Carolina A&T State University	X (1951) ¹	X (1951) ¹	X (1979) ¹	-
Prairie View A&M University	X (1950) ¹	-	X	-
South Carolina State College	-	X (1983) ¹	-	X (1983) ¹
Southern University	X	X	-	-
Tennessee State University	-	X	-	-
Tuskegee University	-	-	X (1988) ¹	-
Virginia State University	X	-	-	-

¹Year Program was initiated²Concentration in Agribusiness

agricultural economics. All of the institutions except one offer a degree or concentration in agricultural economics or agribusiness. A bachelor of science degree in agricultural economics is offered by ten of the institutions, a B.S. in agribusiness is available at seven of the institutions, with three institutions offering a concentration in agribusiness. Graduate programs of study have been implemented in only five of the 1890 institutions: Alabama A&M University, North Carolina A&T State University, Prairie View A&M University, South Carolina State College, and Tuskegee University. Of these five graduate programs, three are in agricultural economics and two in agribusiness (Table 2). All of the graduate programs have been developed over the last ten years. None of the institutions offers a doctoral degree in agricultural economics. According to Smith, the lack of an advanced graduate degree program can seriously hamper these institutions in their efforts to perform research and service functions optimally.

Based on the survey responses, the first 1890 institution to offer a bachelor of science degree in agricultural economics or agribusiness was North Carolina A&T State University in 1951, 61 years after passage of the 1890 Morrill Act. The most recent was South Carolina State College in 1983. The first graduate program in agricultural economics or agribusiness was initiated at North Carolina A&T State University in 1979. The most recent initiation of a graduate degree program was at Tuskegee University in December of 1988. Unlike the 1862 institutions, most of which have a department of agricultural economics, only three 1890 institutions—North Carolina A&T State University, South Carolina State College, and Southern University—have a department of agricultural economics or agribusiness. At the other institutions, agricultural economics programs of study may be housed in the school of business or economics or under various other divisions and departments and may be referred to as areas, units, or programs.

A review of the current Resident Instruction Committee on Organization and Policy (RICOP) enrollment figures for the National Association of State Universities and Land Grant Colleges (NASULGC) of Agriculture indicates that enrollment patterns at the 1890 institutions tend to parallel those at the 1862 institutions. That is, during the period 1980-1987, enrollment in agriculture declined at both 1862 and 1890 institutions. In 1989, based on information received from the survey respondents at 15 of the 1890 institutions, total student enrollment was 65,500 (Table 3). Of this amount, the baccalaureate enrollment in agriculture totaled 2,712 or 4.1 percent. Of these 2,712 students, 18 percent were enrolled in agricultural economics/agribusiness. The five 1890 institutions offering a master's degree had a combined graduate enrollment of 86 students.

Parenthetically, based on this cross-sectional data, it may be hypothesized that enrollment in the 1890 institutions is affected by proximity to competing institutions. Those 1890 institutions located near competing 1862 institutions, in most cases, have the lowest enrollment. This may suggest that the greater the distance between the 1890 institutions and competing 1862 institutions, the greater the likelihood that students interested in agricultural economics

will enroll in one of the 1890s. This hypothesis warrants further study.

Most of the 1890 institutions indicate that enrollment has been constant or increasing over the past three years. Some reasons given for the increase were: the addition of a master's program, much higher tuition at other colleges and universities, more stringent admissions requirements of other institutions, attractiveness of smaller colleges and universities (a more personable atmosphere), distance from competitive institutions, recruitment programs, and curriculum changes. Some faculty members perceived that enrollment in agricultural economics will continue to spiral upward, especially where a concentration in agribusiness is offered.

The survey data lend support to a finding reported by Davis and Allen and Parks and Robbins regarding the human capital shortage of black agricultural economists in the United States. This is even more apparent within the 1890 institutions where the majority of black agricultural economists are employed. Data collected from 14 of the 1890 institutions yielded a combined total of 55 agricultural economists at these institutions. Black Americans made up only 40 percent of the agricultural economists located at the 1890 institutions (Table 4).

Table 3. 1890 Institutions Enrollment For The University, School Of Agriculture, And Agricultural Economics Program, 1989

Name Of Institution	University	School of Agriculture	Ag. Econ. Programs	
			B.S.	M.S.
Alabama A&M University	4,600	375	40	26
Alcorn State University	2,800	130	35	-
University of Arkansas-Pine Bluff	3,800	100	60	-
Delaware State College	2,600	62	-	-
Florida A&M University	6,500	315	50	-
Fort Valley State College	2,000	130	55	-
Kentucky State University	-	-	-	-
Langston University	3,600	20	-	-
Lincoln University	2,800	80	40	-
University of Maryland-Eastern Shore	1,500	150	22	-
North Carolina A&T State University	6,200	300	15	45
Prairie View A&M University	5,300	232	50	10
South Carolina State College	4,100	88	77	11
Southern University	8,700	300	30	-
Tennessee State University	7,800	250	25	-
Tuskegee University	3,200	180	-	4
Virginia State University	-	-	-	-
Total	65,500	2,712	499	86

Source: Response From 1890 Institutions' Administrators and Faculty

Table 4. Gender And Racial Background Of Agricultural Economists At 1890 Institutions, 1989

Name Of Institution	Gender		American		Foreign	
	Male	Female	Black	Nonblack	Black	Nonblack
Alabama A&M University	7	0	2	2	0	3
Alcorn State University	3	0	1	0	2	0
University of Arkansas-Pine Bluff	2	1	1	1	1	0
Delaware State College	0	0	0	0	0	0
Florida A&M University	3	0	1	0	2	0
Fort Valley State College	2	1	2	0	1	0
Kentucky State University	0	0	0	0	0	0
Langston University	2	0	1	0	0	1
Lincoln University	2	0	2	0	0	0
University of Maryland-Eastern Shore	3	0	1	0	2	0
North Carolina A&T State University	7	0	4	1	2	0
Prairie View A&M University	2	0	2	0	0	0
South Carolina State College	7	1	2	1	4	1
Southern University	3	1	2	0	2	0
Tennessee State University	5	0	1	0	0	4
Tuskegee University	3	0	0	0	3	0
Virginia State University	0	0	0	0	0	0
Total	51	4	22	5	19	9

Source: Response From 1890 Institution's Administrators and Faculty

However, this percentage increased to 75 percent when foreign blacks are added. Moreover, foreign faculty, black and nonblack, represented over 5 percent of the agricultural economists. Nonblack faculty make up 25 percent of the agricultural economists, while the female faculty accounted for only 5 percent. According to the National Advisory Committee on Black Higher Education and Black Colleges and Universities, an ethnically and racially diverse faculty is important because the perspectives these faculty members bring to the institution contribute to students' breadth of scholarship in the modern world. Thus, most 1890 institutions believe this diversity in faculty impact positively on the level and quality of curricular offering.

The numbers of agricultural economists at all the 1890 institutions, except Prairie View, has either remained constant or has increased over the 1979-1989 period (Table 5). In 1979, the total number of agricultural economists at fourteen of the 1890 institutions was 42. Today, there are 55, a 30 percent increase. At four of the institutions, the numbers of agricultural economists did not change, whereas nine indicated their number increased. The largest increase was at South Carolina State College, where the number of agricultural economists increased from two to eight.

Only nine of the institutions have agricultural economics faculty that are tenured (Table 5). Moreover, only 20 (36 percent) of the agricultural economics faculty members at the 1890 institutions have tenure, although over 85 percent of the faculty have their terminal degrees. The remaining 15 percent have a master of science degree. Some respondents fear that the number of faculty members may decline due to 1962 institutions' needs for blacks in agricultural economics and a lack of tenure (security) at the 1890 institutions.

Since teaching, not research, has been the primary focus at these institutions, only 37 percent of the faculty's time, on the average, is allotted for research (Table 5). The other 63 percent is allocated to teaching. Only one of the 1890 institutions, Tuskegee University, reported that one faculty member devoted 25 percent of his time to extension. The primary focus of research at the 1890 institutions has been in the areas of limited resource farming, marketing, and rural and international development. All the institutions indicated some type of research on small or limited resource farming. The 1890 institutions were thrust into research aimed primarily at the small, limited resource farm sector due primarily to three factors: (1) 1862 institutions had little or no interest in this area of research, (2) the Federal government allotted funds primarily to 1890s for

Table 5. Faculty Number, Tenure, Level Of Education Of Agricultural Economists At 1890 Institutions, 1989

Name Of Institution	Number Of Faculty		Number Of Tenured Faculty	Highest Degree		Faculty Appointment Mean, Percent	
	1979	1989		Ph.D.	M.S.	Research	Teaching
Alabama A&M University	1	7	7	5	2	25%	75%
Alcorn State University	1	3	0	2	1	33%	64%
University of Arkansas-Pine Bluff	2	3	0	2	1	56%	46%
Delaware State College							
Florida A&M University	0	3	0	2	1	25%	75%
Fort Valley State College	3	3	2	3	0	53%	47%
Kentucky State University							
Langston University	2	2	0	1	1	0	100%
Lincoln University	1	2	0	2	0	25%	75%
University of Maryland-Eastern Shore	1	3	0	3	0	50%	50%
North Carolina A&T State University	7	7	1	7	0	65%	35%
Prairie View A&M University	3	2	2	2	0	25%	75%
South Carolina State College	2	8	3	7	1	25%	75%
Southern University	3	4	3	4	0	50%	50%
Tennessee State University	3	5	1	4	1	65%	35%
Tuskegee University	1	3	1	3	0	30%	70%
Virginia State University							

Source: President of 1890 Land-Grant Colleges and Universities. *Institutions Strengthening 1890 Land-Grant*. U.S. Department of Agriculture, March, 1980.

research in this area, and (3) most of the 1890s were located in limited resource communities and had a history of serving the needs of the economically disadvantaged.

The data suggest that, given permanent monies for research, the caliber of faculty, and the potential increase in enrollment, a sound foundation for strong B.S. and M.S. degree programs in agricultural economics or agribusiness has been established. Although the development process has been slow and constrained, the tenacity and sacrifices of the agricultural economics faculty are showing dividends. Most of the respondents indicated that their major problem was not enrollment, but funding and human capital. Many have difficulty attracting faculty due to the lack of sufficient Federal and state funds. Without funds, they cannot offer tenured positions. Thus, many 1890 institutions depend on faculty commitment to give a part of themselves to an institution devoted to serving the economically and socially disadvantaged.

FUTURE DIRECTIONS

All the respondents to the survey felt strongly that there is a future for agricultural economics within the 1890 institutions. However, these institutions must find their niche in society, whether in alterna-

tive marketing, small scale farming, rural development, or other areas. Their success will depend on how accurately they solidify their role in society and on the service they are willing and able to provide. They must continue to be in the forefront of human resource development efforts for the economically and socially disadvantaged, constantly adjusting their service to meet demand. The programs at the 1890s may be scrutinized if they compete with or duplicate programs at the 1862 institutions or if they solicit additional operating funds. Past records and accomplishments have indicated that each 1890 institution is a viable entity in itself and should be allowed to offer duplicate or similar programs for those who desire to attend the institution. Thus, as the 1890s continue to upgrade their curriculum, improve their facilities, change peoples' perceptions of their institutions and programs of study, offer additional programs (such as master's and doctoral degrees), cater to more than just minorities, and get the administrators interested in the program, agricultural economics at the 1890 institutions will survive and effectively carry out the institutional mission of service.

The day when the faculty at 1890 institutions were primarily engaged in teaching is surely passing. The future direction began with revitalizing the curricu-

lum, increasing undergraduate enrollment, establishing graduate-level programs, and improving the welfare of their clientele. In order to accomplish the above, the administrators and faculty must secure more research funds at the state and Federal levels. These additional funds will be instrumental in refurbishing the 1890 institutions' physical facilities as well as providing funds for student aid, faculty salaries, and other education needs.

CONCLUSIONS

Survey research is used to provide some insight into the development, existence, and current status of agricultural economics programs at the 1890 institutions. Our findings show that the agricultural economics programs at the 1890 institutions have developed and are developing a solid program with which to carry out its tripartite mission of teaching, research, and service. Currently, all of the 1890 institutions except one offer a degree or concentration in agricultural economics or agribusiness. Five of the 1890 institutions have developed master's programs. Based on the survey data, two primary ingredients for a viable and progressive program—students and faculty—are already partially in place.

Currently the proportion of students majoring in agricultural economics makes up approximately 18 percent of all undergraduate students enrolled in agriculture at the 1890 institutions. This percentage has to increase if the agricultural economics programs are to continue to grow. Additionally, the diversity of the faculty and the preponderance of doctorates attest to the high caliber of faculty employed by these institutions.

The 1890 institutions are also addressing the demands of their students and the students' potential employers by modifying curricula and developing graduate programs. Research accomplishments, enhanced by permanent funding from the USDA, in the areas of limited resource farming, marketing, rural development, and international development have been specifically targeted to serving those in need. All indications from the respondents suggest that, even without adequate funding, the 1890 institutions are carrying out their mandate to provide affordable higher education to a broad range of students, to offer graduate level degrees and conduct advanced research, and to transfer to the public the results of applied research.

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