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Rosalind P. Harris  
*The Pennsylvania State University*

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## **Institutions Under Influence: The Case of Knowledge Stratification Within the U.S. Land Grant System.**

*Rosalind P. Harris*

*Department of Agricultural Economics and Rural Sociology  
204 Weaver Building  
The Pennsylvania State University  
University Park, Pennsylvania 16802*

**ABSTRACT** The U.S. land grant system is notably stratified in its distribution of knowledge and power. In the upper strata are historically white land grant (HWLG) institutions often referred to as "1862 Institutions," which command power and resources from their historic ability to produce the agricultural and scientific knowledge supportive of state and national economic development goals. In the lower strata are historically black land grant (HBLG) institutions often called "1890 institutions." They struggle against the historical conditioning that has, until recently, restricted their efforts in producing knowledge to the manual applications and teaching of farming. This article examines how historical forces have influenced the production of knowledge within HBLG institutions and subsequently attenuated their competitiveness within the modern research arena. Also discussed is a different approach for transforming a land grant system long characterized by patterns of institutional stratification.

### *Introduction*

Historically black land grant (HBLG) institutions are now entering the second century of their protracted struggle to gain the means and legitimacy necessary to serve their constituencies in the fullest and most meaningful ways possible. Contemporary obstacles to the realization of these goals have their origins in the convergence of political and economic forces that conditioned the denial of full citizenship to Africans freed from slavery after the Civil War.

Notable studies on the history of HBLG institutions include analyses of the political and economic forces that converged during the post-Reconstruction period to condition the current underfinancing and marginalization of HBLG institutions (see Browning, 1975; Chapman, 1940; Trueheart, 1979). An implied but often under-theorized dimension of these political and economic analyses is the role played by the relationship between knowledge and power in the marginalization process.

The relationship between knowledge and power can be understood in concrete terms when, for instance, we consider how the rise of modern

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agricultural science as the legitimate framework for understanding how to produce food within this country was accomplished through the feedback relationship between scientific research, technological progress and the interests of wealthy farmers and businessmen (Rosenberg, 1976). Andre Gorz (1976) argues that the forces within a society that maintain a dominant knowledge framework, such as modern agricultural science, are the same forces operating to serve the interests of particular classes within that society. He further argues that the only real distinction between knowledge that is considered scientific, rational, objective—and therefore legitimate—and the knowledge derived from the everyday experiences of "ordinary" people is the usefulness it has to the interests of the dominant class. Thus the knowledge relationship is ultimately a power relationship.

The evolution of a highly stratified land grant system is also instructive regarding the relationship between knowledge and power. The growth and development of HWLG institutions and the professionalization of agricultural scientists served to identify modern agricultural science with expert knowledge. Primed through state, federal and private financing to function as the pre-eminent resources for scientific agricultural knowledge, HWLG institutions developed a national and international posture as scientific research centers in a world where "neither God nor tradition is privileged with the same credibility as scientific rationality" (Harding, 1986:16).

In 1862, when the forces of science, technology, wealth, power, and the quest for industrial growth converged in a pattern giving rise to institutions that would help to make American agriculture a profitable enterprise, Africans were still enslaved. By 1890, when the creation of separate land grant institutions for African-Americans was legislated by the second Morrill Act, slavery had been outlawed, and the withdrawal of Northern Troops from the South in 1877 had signaled the abandonment of government support for the empowerment and enfranchisement of freed Africans.

Within this context, the prospect of education for African-Americans was fraught with controversy. Ideas for a classical, formal education that some factions of the Government's Freedmen's Society endorsed in the early Reconstruction period were superseded by ideas calling for the educational experiences of African-Americans to be confined to practical, vocational training that would involve extensive manual laboring experiences.

The major progenitor of this ideology, Samuel Chapman Armstrong, was successful in capturing and actualizing this ideology within the Hampton Normal School (Hampton University). Moreover, he was successful in reproducing the institution qua ideology through teacher training and by inspiring teachers to found institutions similar to Hampton. Hampton and later Tuskegee Normal School (Tuskegee University), founded by Armstrong's protegee Booker T. Washington, were the models that future HBLG institutions would attempt to emulate. Though there was great diversity among the

HBLG institutions from their beginnings, they had in common the heritage of the practical-vocational ideology and patterns of consistently inadequate funding from state, federal and private sources. When funding was provided, it was unevenly and irregularly distributed and supported only the maintenance and development of teacher training and resident education programs, a pattern reinforcing the notions inspired by Armstrong. Support for research activity was virtually non-existent.

As a result, HBLG institutions developed an agricultural knowledge base quite distinct from that developed within HWLG institutions; the HBLG knowledge came from the local wisdom of farm smallholders and the practical experiences of people within the institutions who employed their ingenuity and resourcefulness in using home grown methods and technologies to generate useful knowledge.

Through the efforts of administrators and scientists within HBLG institutions and officials within governmental agencies such as USDA, HBLG institutions have become increasingly involved in the research activities of the land grant mainstream within the last ten to fifteen years. They remain, however, at a considerable disadvantage. The agricultural knowledge peculiar to their historical development is not a valued knowledge. As Gorz (1976) argues, if one way of knowing, of doing, of gaining knowledge is ordained superior within the ruling order of the society, other ways of knowing etc. by definition are devalued. Yet because of their historical development and persisting patterns of institutional inequality, HBLG institutions are not in a position to develop scientific research capabilities on par with HWLG institutions.

Within the context defined by the dominance of scientific agricultural knowledge, HBLG institutions will always be looked upon as weak and needing to be strengthened and remediated. The following discussion examines the social, political, economic and ideological forces that have played a role in conditioning the development of a distinct agricultural knowledge within HBLG institutions and the implications that the development of a distinctive agricultural knowledge has for maintaining long standing patterns of stratification within the land grant system.

### *The evolution and development of HBLG institutions*

The second land grant college act, the Morrill-McComas Act of 1890, was passed in an era of black disenfranchisement conditioned by the Compromise of 1877. The Compromise aided the election of Rutherford B. Hayes to the presidency in exchange for the removal of northern troops from the south, climaxing the Northern Republicans' political abandonment of blacks. The 1890 land grant legislation was primarily enacted to respond to pressure by agricultural scientists and agricultural interest lobbies for

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appropriations to cover the costs of residential instruction for "the more complete endowment and maintenance" of HWLG institutions (Marbury, 1979). But it only secondarily provided for the creation of separate land grant institutions for black people.

By 1890 the state agricultural experiment stations (SAES), created by the Hatch-George Act of 1887, were in the early stages of development within HWLG institutions. The establishment of SAES had the impact of generating much needed revenues for HWLG institutions and securing their identities as legitimate research institutions (Marcus, 1985). Though the Hatch legislation specified that "in any State . . . in which two such colleges have been or may be so established the appropriation hereinafter made to such State . . . shall be equally divided between such colleges," it concluded that this would apply "unless the legislature of such State . . . shall otherwise designate."<sup>1</sup> This clause provided the states that established separate land grant institutions as a result of the 1890 mandate the caveat needed to withhold funds for the development of research capabilities from the subsequently established HBLG institutions, and that they did.

The federal government did not address Hatch funding inequities between HBLG and HWLG institutions until the late 1960s. Table 1. summarizes information on the periods in which the respective HBLG institutions received research funds from various sources. Only one institution, Prairie View A&M in Texas, received Hatch monies prior to 1971. In addition to Alabama, which provided money for the conduct of agricultural research at Tuskegee, three out of the seventeen states designating separate land grant institutions for black people provided state research monies prior to 1971. These states included Georgia, Texas and Virginia. HBLG institutions provided with monies from private sources to support research prior to the early seventies included Florida A&M University, North Carolina A&T State University and Tennessee State University. It was only with the provision in 1966-67 of Cooperative State Research Service (CSRS) funds, a percentage of which were earmarked specifically for research at HBLG institutions, that HBLG institutions began receiving ongoing support for their research programs.

In contrast to the Hatch legislation, the 1890 Morrill Act provided for the automatic disbursement of funds to be equitably distributed on the basis of the percentage of the population served by HBLG and HWLG institutions. Funding allocations were required to comply with this formula under threat of being withheld from states in non-compliance by the Secretary of the Interior. However, when the Secretary of the Interior, John W. Noble, withheld funds from South Carolina in 1891 for non-compliance, the Congress reversed the Secretary's decision upon appeal, setting a precedent

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<sup>1</sup>Hatch-George Act, sec. 1, 24 Stat. L. 440-2 (1887).

*Table 1. Research developments at black land grant colleges and universities and Tuskegee University prior to 1967*

INSTITUTIONS	ACRES OF LAND ACQUIRED	DESIGNATED LAND GRANT INSTITUTIONS	DESIGNATED STATE OR SUB-STATION	STATE FUNDS FOR RESEARCH	HATCH ACT FUNDS FOR RESEARCH	CSRS FUNDS FOR RESEARCH	PRIVATE FUNDS FOR RESEARCH	GRANTED LAND BY U.S. CONGRESS
1. Ala. A & M Univ.	878	1891				1967		
2. Alcorn State Univ.	1,700	1871	1971	1971	1971	1967		1862
3. Univ. of Ark., P. B.	275					1967		
4. Delaware State College	293					1967		1891
5. Florida A & M Univ.	404	1890	1973			1966	1957	
6. Ft. Valley State College	645	1949		1954		1967		
7. Kentucky State University	320					1967		1886
8. Langston University	40					1967		
9. Lincoln University	574	1890				1967		
10. Univ. of Md., E.S.	303	1890		1971		1967		
11. N.C.A. & T. State Univ.	800	1891				1967	1964	
12. Prairie View A & M	1,400	1891	1947	1962	1947	1967		
13. S.C. State College	450	1896				1967		
14. Southern University	875	1892				1967		
15. Tenn. State Univ.	450	1890				1967	1960	
16. Tuskegee Institute	5,189	N/A	1897	1897		1967	1940	1899
17. Virginia State College	630	1920	1937	1937		1967		

Source: Development of Research at Historically Black Land Grant Institutions: The Bicentennial Committee of the Association of Research Coordinators.

for the inequitable disbursement of 1890 funds to the HBLG institutions (Trueheart, 1979:45).

The 1890 legislation did not provide for agricultural research or materials and equipment for the development of the physical infrastructures so sorely needed by the fledgling HBLG institutions; however, the emphasis placed on using the Morrill funds—channelled to HBLG institutions—for resident instruction and the absence of provisions for research were consistent with the dominant ideology of black education in that period. A review of the principle themes of this dominant ideology is particularly important for understanding how agricultural knowledge within HBLG institutions came to be conceptualized and subsequently actualized within a practical vocational mode.

### ***Black socio-educational ideology***

From the very start, HBLG institutions emphasized agricultural practices that would effectively address the needs of black farmers concentrated in the rural underclass, namely practical training of a marginalized and dependent work force. The manifest goal was (and is) to encourage a better life for poor people; but the latent function of this emphasis, nonetheless, was to reproduce the class structure of modern agriculture. Educational ideologies derived from racial ideologies played a key role in structuring the practices of black institutions which in turn facilitated the maintenance of blacks within the agricultural underclass.

Teacher training and manual labor, for instance, had been emphasized at the Hampton Normal and Industrial School founded in Hampton Virginia (Hampton Institute) in 1868 and later at the Tuskegee Normal and Industrial Institute (Tuskegee Institute) founded in 1881 in Tuskegee Alabama. These institutions were the forerunners of the HBLG institutions—the "grandfather" institutions that many HBLG administrators sought to emulate because of their endowments from Northern philanthropies and their innovative approaches to agricultural education. However, both endowments and practices were inextricably linked to the willingness of institutional leaders at Hampton and Tuskegee, Samuel Chapman Armstrong and Booker T. Washington respectively, to translate into practice educational theories that would serve to reproduce the Southern class structure (Anderson, 1988).

Armstrong, the major theoretician of the racial educational ideology that guided practice at Hampton and later Tuskegee, subscribed to the belief that it was the duty of the superior race, the white race, to preside over civilizing the darker races. Reared in Hawaii, Armstrong had originally worked out his racial ideologies regarding the "emancipation, and civilization of the dark-skinned Polynesian people in many respects like the Negro race" (Quoted in Anderson, 1988:38).

Armstrong felt that black people should be educated as part of the civilizing process, but that they were far too inferior and "emotional in their nature" to be educated in the fashion that white people were educated. Moreover, he perceived that the emergence of the New South would benefit from the labor of blacks skilled in the industrial arts (Anderson, 1988). He therefore began to shape his ideology into an educational practice that would be "suitable for adjusting blacks to a subordinate social role in the emergent 'New South'" (Anderson, 1988:36). A distinctly black education variously called industrial, vocational, practical or agricultural, was given form within institutions such as Hampton and Tuskegee, contrasting significantly with what was considered a distinctly literary and formal, or white, education.

Armstrong, envisioned the black teacher as playing a key role "in shaping the social, economic and political consciousness of the black masses" (Anderson, 1988:44-45). He reasoned, "Let us make the teachers and we will make the people [because] our students are docile, impressible, imitative and earnest, and come to us as a tabula rasa so far as real culture is concerned" (Quoted in Anderson, 1988:45).

The importance of Hampton's founding and its teacher-training emphasis for the diffusion of Armstrong's ideology to other black institutions cannot be overstated. An observer remarked in 1881 that:

In every county in this state, and in nearly every Southern state, we find someone who has received instructions at Hampton, and has gone out to teach good lessons and set good examples to some less fortunate ones of his race (Quoted in Schor, 1982:103).

The real significance of Armstrong's "movement," however, needs to be understood within the context of its legitimization by broader societal forces. This philosophy "was the logical extension of an ideology that rejected black political power while recognizing that the South's agricultural economy rested on the backs of black agricultural workers" (Anderson, 1988:44). Agriculture, in particular cotton and tobacco production, were critical to the resurgence of the post War Southern economy and the ascendance of the "New South." Cheap black, docile, agricultural labor was key to insuring the successful production of these commodity crops.

In this respect, the "New South" agricultural reform program of the 1880s blended perfectly with Booker T. Washington's objective of educating and uplifting one million black farmers. Washington proposed that blacks live in the future as they had in the past by cultivating the soil. At Tuskegee, as at Hampton, students were trained primarily as teachers. Agricultural training revolved around instruction in vocational agricultural education with many students going on to teach in the subsequently established HBLG institutions.



***Teaching and resident education: the HBLG raison d'être***

The socio-educational ideologies that helped to shape the direction of knowledge production at Hampton and Tuskegee directly conditioned the focus on resident education and teacher training within the HBLG institutions. The poor educational environment in the South generally and the poorer educational environment for blacks specifically also served to make teaching a priority for HBLG institutions. The majority of HBLG institutions, for instance, were located in areas where the public schools were either very poor or non-existent. As a result, the majority of students attending HBLG institutions were at the primary or secondary level. As late as 1916, only 12 of the 4,875 students attending HBLG institutions were enrolled at the college level (Davis, 1933:319). It was not until the late 1920s that the number of college students exceeded the high school and grade school enrollments (Davis, 1933:326). At the collegiate level, students were primarily trained to fill the role of teachers in anticipation that they would move on to teach vocational agriculture courses at the high school or college level.

By the early 20th century, the professionalization of agricultural scientists within HWLG institutions was well underway. And their work on integrating the natural sciences and agricultural "arts" was contributing to the successful formulation and legitimation of an array of distinct agricultural science disciplines. During this period, however, agricultural practice and science instruction remained discrete undertakings within HBLG institutions (Turner, 1946:40). Thus, course offerings provided for the training of agricultural generalists with a heavy emphasis "on manual applications and techniques of farming and mechanical arts" (Trueheart, 1979:73). Agricultural experiments and practicums used materials and supplies available within the local environment and focused on very practical low-input production concerns (Chapman, 1940).

Federal mandates both supported and helped to elaborate the focus on teacher training and resident education. Of the land grant acts passed between 1900 and 1935 (i.e., Adams, Purnell, Smith-Lever, Bankhead Jones, Nelson, etc.) only the Nelson Amendment of 1907 and the Bankhead-Jones Act of 1935 provided for the equitable distribution of funds to HBLG institutions. Both acts allocated funds specifically for the instruction of teachers of agriculture, the mechanic arts and home economics. These appropriations were a mixed blessing. As one observer notes,

on one hand, increased resources for teacher-training, though badly needed, encouraged the southern view of BLGs as normal schools, unimportant to the land grant missions of the states; on the other, increased resources prompted some states to decrease state appropri-

ations to BLGs in proportion to the flow of new federal funds (Trueheart, 1979:75-76).

The forces that supported an occupational structure that channeled black agriculturalists into teaching professions also worked simultaneously with forces in the southern political economy to preclude the return of black graduates to farming (Embree, 1936). Indeed, HBLG enrollments in agricultural courses from the very beginning were low. Even by 1934, within the thirteen colleges that had compiled data on student enrollments, only 543 out of 4,636 students or 11.6% were enrolled in agricultural courses (Embree, 1936:441). Embree notes that out of the small percentage who were enrolled in agricultural courses, few

return to farming. A good many of them become teachers in other agricultural colleges; a considerable number find useful work as farm demonstration agents; and a great many more go into general teaching or other occupations which have no direct bearing whatever on agriculture (Embree, 1936:441)

The end result was that "the substantial amount of money and the large enrollments in the Negro land grant colleges . . . had almost no influence upon the people who [were] engaged in farming or upon the development of farm practices" (Embree, 1936:441).

Thus the overemphasis on teaching and the lack of emphasis on research resulted in both the containment of viable research programs within HBLG institutions and the tracking of people trained in agriculture out of farming. This pattern of knowledge production has to be appreciated also for its long term impact on the structure of research programs within HBLG institutions.

### *The elusive notion of research within HBLG institutions*

There is considerable controversy over the ability of HBLG institutions to respond on par with HWLG institutions to the research agendas set by state and national entities. The differences in the development of research expertise within HBLG and HWLG institutions has significantly influenced the nature of this controversy, making the background on research at HBLG institutions particularly noteworthy.

As experiment station administrators within HWLG institutions promoted the "creation of new applied science disciplines" (Rosenberg, 1976:165) such as entomology, plant pathology, horticulture, agronomy and others during the early years of the twentieth century, administrators within the HBLG institutions escalated their efforts to have similar resources provided for the development of research within their institutions (Trueheart, 1979). However,

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such provisions were not forthcoming. Essentially, the "uninterrupted preferential treatment of the WLGs made them indispensable over time to the execution of state and national planning, economic development, and educational policies" (Trueheart, 1979:74). According to critics and proponents alike, they had become in effect "instruments of state and economic development policies and as such were able to command ever larger levels of support from governmental and private agricultural sources" (Trueheart, 1979:73). Indeed, in 1938 the President's Advisory Committee on Education described the national merit of land-grant colleges in these terms:

. . . much of [their] effectiveness . . . has resulted from the fact that they have served as the centers around which to organize the federally aided services of agricultural research and extension . . . The agricultural research stations occupy a unique and important place among the facilities of the Nation for organized research. They have provided research facilities for a basic industry in which the individual proprietors are almost universally unable to carry on extensive research through their own facilities.<sup>2</sup>

Between 1897 and 1973, six HBLG "sub-stations" were designated for support by Hatch funds. Tuskegee had been granted an experiment station under the direction of George Washington Carver in 1897 but it was closed in 1920 for lack of continued state support (Schor, 1982).

The five HBLG institutions provided with annual appropriations for experiment station research were Virginia State University, 1937; Prairie View A&M University, 1947; Alcorn State University, 1971; University of Maryland-Eastern Shore, 1971; and Florida A&M University, 1973 (Wilson *et al.*, 1980). However, the funds that had been allocated were not substantial. Essentially

The scientific advancements in agriculture, home economics and engineering which were shared by WLGs with white farmers and farm associations on a systematic, continuous basis were not formally extended even to BLG faculties for decades (Trueheart, 1979:96).

In fact, as late as 1978 federal support of agricultural research at HBLG institutions was meager despite policies effected in the late 1960s to increase funding levels. The information presented in Table 2 indicates that HBLG

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<sup>2</sup>Advisory Committee on Education, *Report of the Committee* (Washington, D.C.: Government Printing Office, 1938), p. 145.

institutions received .1% of the monies paid to Agricultural Experiment Stations in 1978. They received 0% of funds from all other sources except for the percentage of CSRS funds set aside specifically for research at HBLG institutions.

Many analysts of HBLG development argued that the lack of federal research funds and of Hatch funds in particular, had affected the overall development of the agricultural sciences at HBLG institutions. Especially since

modern agriculture, home economics, and mechanic arts have their foundation in basic sciences . . . . It is impossible for the Negro land-grant college to provide adequate program and background for professional careers in agriculture, home economics and mechanic arts when the functional and productive segments of the plant and animal sciences are offered in the white land grant colleges only (Weaver, 1956:122).

They argued further that "teaching carries very little or no experimental opportunity beyond the exercise of the laboratory period" and that the "biological and other natural sciences have little or no articulate connection with the divisions of agriculture" as they do within the HWLG institutions (Turner, 1946:38-40).

Thus the character of HBLG research especially "provided opportunities to develop technical and practical skill through restricted laboratory experience on the college farm, and in the canning plant, poultry plant, creamery, and soil and dairy laboratory" (Martin, 1962:398). Black land grant agricultural research was thus of necessity, according to these analysts, of a practical and applied nature. These characteristics borne of overt and obvious discrimination in the allocation of federal funds for research simultaneously provided for the development of a distinctive, but undervalued agricultural knowledge base for HBLG institutions and severely restricted their participation in the scientific research activities of the land grant mainstream.

#### *HBLG institutions: the current dilemma*

Between 1967 and 1981, the U.S. Congress enacted legislation designed to compensate HBLG institutions for historical deficiencies in research funding by providing money for the development and proliferation of research activities at HBLG institutions. The directives issued in the Food and Agricultural Act of 1981, in particular, "set the stage for enhancing the role(s) of the 1890 [HBLG] institutions as participants in America's food and agricultural research system" (Williams and Williamson, 1986:85). With these

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Table 2. USDA funding to colleges, fiscal year 1978

AGENCY AND PROGRAM	AMOUNT TO BLACK COLLEGES (000'S)	AMOUNT TO ALL COLLEGES (000'S)	PERCENT
<i>DEPARTMENT OF AGRICULTURE</i>			
Special Research Grants	.0	7,235.0	.0
Cooperative Forestry Research	.0	9,500.0	.0
Payments to Agricultural Experiment Stations	124.0	105,491.0	.1
Rural Development Research	.0	1,440.0	.0
Payments to 1890 Land-Grant Colleges	14,153.0	14,153.0	100.0
Competitive Research Grants	.0	14,400.0	.0
Extension Programs in Agriculture, Home Economics, and Related Subjects	9,785.3	214,503.0	4.5
Aid to Land-Grant Colleges for Food and Agricultural Science Education	1,294.8	11,500.0	11.2
<b>TOTAL</b>	<b>25,357.1</b>	<b>378,222.0</b>	<b>6.7</b>

Source: Report to U.S. Department of Agriculture on Strengthening 1890 Land Grant Institutions Submitted by Presidents of 1890 Land-Grant Colleges and Universities, March 1980.

funds and funds provided for by subsequent legislation to support competitive research grants and grants for the upgrading of physical plant facilities, many HBLG institutions have established and sustained notable research records in the areas of rural development, animal science, plant and soil science, human nutrition and others (Mayberry, 1977).

Despite the strengthening of research programs within HBLG institutions, "education has and continues to be a major priority" (Wilson *et al.*, 1980:16). Scientific capacity continues to lag well behind that of HWLG institutions. The continued emphasis on education and the lack of competitive capacity in research reflects both a response by HBLG institutions to the needs of their rural constituencies for access to higher education and an accommodation to the lack of state support for research programs. In point of fact, "land grant colleges are highly dependent upon state appropriations, and the largest and most prestigious institutions are found in those states which have been most generous with the public purse" (Buttel, 1985:91). High visibility, prestige

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and the ability to attract external research funds are the benefits that accrue to institutions amply supported by a full complement of federal and state funds.

As a result, even though HBLG institutions continue to focus on the needs of small farmers, they are increasingly faced with the challenge of dividing attention and resources between the needs of constituencies such as small farmers and the imperatives of state and national research agendas, all at once. To become and remain competitive within state and national research arenas limited research dollars must therefore be redirected for research in hot topic areas such as biotechnology.

In essence there continues to be little validation and support for the goals and constituencies HBLG institutions have responded to historically. Instead they are increasingly pressured to respond to the goals that have been set within the broader scientific community. These are goals that simultaneously de-emphasize a focus on concerns of historical importance for most HBLG institutions and which, through their urgency and appearance of normalcy, obscure the fact that historical forces have conditioned very different capacities for their realization within HBLG and HWLG institutions.

### *Summary*

The notion of hierarchical knowledge, a dominant knowledge that commands the support and stamp of legitimacy of society versus a subordinate knowledge that is not supported and is considered to have little or no value, is an important one for understanding stratification within the U.S. land grant system. Though the agricultural knowledge produced within HBLG institutions is not inherently inferior it has become so by two important processes: the dominance of agricultural scientific knowledge in the land grant system and the conditioning of a different kind of knowledge production within HBLG institutions. While the former functioned to set the terms by which agricultural scientific knowledge came to be regarded as legitimate and authentic and as other knowledge relating to the production of food were simultaneously de-legitimated, the latter functioned to delimit the kind of knowledge that could be produced within HBLG institutions. In particular HBLG institutions have been restricted to the production of knowledge that is regarded as unsophisticated and unscientific.

Through these processes, knowledge was effectively translated into power, aligning HWLG institutions with interest groups that benefitted and in turn supported their continued production of agricultural scientific knowledge. HBLG institutions, on the other hand, did not become privy to major sources of support for their research programs. This was because the knowledge that they came to produce in response to the exigencies of their circumstances ultimately did not support the aims of interest groups focused

on increasing agricultural productivity through the incorporation of scientific methods. Moreover, land grant legislation subsequent to the 1890 Morrill Act reinforced the tradition of non-support for HBLG research programs by restricting funding allocations to disbursements for teaching and resident education programs.

The current dilemma places HBLG institutions in the position of virtual mendicants within a system overwhelmingly supportive of institutions that have had the historical prerogative to develop strong research programs. The structure of the situation has also provided little incentive for HBLG institutions to strengthen their traditional knowledge base, which has the potential to be a much needed source of support for limited resource farmers who must be sensitive to smallholder environmental management concerns and who must draw on local resources and locally developed technologies for their survival.

Structural change ultimately results from negotiations which take place among the various actors located within the many levels of a social structure (Maines and Charlton, 1985). Such negotiation has already resulted in increased financial support for the strengthening of research programs within HBLG institutions. However, the range of the negotiations has been limited by a discourse which restricts considerations of institutional maneuvering to that of becoming more scientifically capable. If the terms of the discourse were changed—if for instance other knowledge seeking strategies were equally valued—numerous possibilities might present themselves in the negotiation process.

For example, HBLG institutions and HWLG institutions might concede that there would be mutual benefits derived from strategies that would allow them to learn from each other, instead of the emphasis being placed on HBLG institutions to learn from and then emulate the practices of HWLG institutions. This agreement might be based on the recognition that all institutions, HBLG and HWLG alike, have the needs of many constituencies to respond to and that a meaningful response to each might require strengths in more than one area of knowledge seeking and production. At the heart of the concern that the terms of the discourse be re-negotiated is the belief that 1) such a process is necessary for transforming a land grant system long characterized by patterns of institutional stratification and that 2) ultimately the relevance and vitality of the knowledge produced as a result of the transformation would be reflected in the health and sustainability of our food production systems.

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**References**

- Anderson, James D.  
1988 *The Education of Blacks in the South*. Chapel Hill: The University of North Carolina Press.
- Browning, Jane E. Smith  
1975 *The origins, development, and desegregation of the traditionally black public colleges and universities: 1837-1975*. Unpublished Ed.D. Dissertation, Harvard University.
- Buttel, Frederick H.  
1985 "The land-grant system: A sociological perspective on value conflicts and ethical issues." *Agriculture and Human Values* 2 (2):78-95.
- Chapman, James Oscar  
1940 *A historical study of negro land-grant colleges in relationship with their social, economic, political and educational background and a program for their improvements*. Unpublished Ph.D Dissertation, The Ohio State University.
- Davis, John W.  
1933 "The negro land-grant college." *Journal of Negro Education* 2:313-28.
- Embree, Edwin R.  
1936 "Education for rural life." *Journal of Negro Education* 5:439-47.
- Gorz, Andre  
1976 "On the class character of science and scientists." Pp. 59-71 in 1976 Hilary Rose and Steven Rose (eds.), *The Political Economy of Science: Ideology of/in the Natural Sciences*. London: Macmillan Press LTD.
- Harding, Sandra  
1986 *The Science Question in Feminism*. Ithaca: Cornell University Press.
- Maines, David R. and Joy C. Charlton.  
1985 "The negotiated order approach to the analysis of social organization." Pp. 271-308 in Harvey A. Faberman and R.S. Perinbanayagam (eds.), *Foundations of Interpretive Sociology: Original Essays in Symbolic Interaction: Studies in Symbolic Interaction*. Connecticut: JAI Press Inc.
- Marbury, Carl H.  
1979 "The decline in black-owned rural land: Challenge to the historically black institutions of higher education." Pp. 97-116 in Leo McGee and Robert Boone (eds.), *The Black Rural Landowner-Endangered Species*. Westport, Connecticut: Greenwood Press.
- Marcus, Alan I.  
1985 *Agricultural Science and the Quest for Legitimacy. Farmers, Agricultural Colleges, and Experiment Stations, 1870-1890*. Ames: Iowa State University Press.
- Martin, William H.  
1962 "The land-grant functions of the negro public college." *Journal of Negro Education*, 31: 396-403.
- Mayberry, B.D.  
1977 *Development of Research at Historically Black Land-Grant Institutions*. Jefferson City, Missouri: Association of Research Coordinators.
- Rosenberg, Charles E.  
1976 *No Other Gods. On Science and American Social Thought*. Baltimore: The Johns Hopkins University Press.
- Schor, Joel.  
1982 *Agriculture and the Black Land Grant System to 1930*. Washington, D.C., USDA: Agricultural History Branch.



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**Trueheart, William E.**

- 1979 The consequences of federal and state resource allocation and development policies for traditionally black land-grant institutions 1862-1954. Unpublished Ph.D. Dissertation, Harvard University.

**Turner, Thomas W.**

- 1946 "Science teaching in negro colleges." *Journal of Negro Education*, 15:36-42.

**Weaver, Edward K.**

- 1956 "Development of science curricula in negro schools." *Journal of Negro Education*, 25: 118-29.

**Williams, Thomas T. and Handy Williamson Jr.**

- 1986 "Teaching, research and extension programs at predominantly black land grant institutions." Pp. 81-96 in Thomas T. Williams (ed.), *Human Resources Development in Rural America—Myth or Reality*. Tuskegee: Human Resources Development Center.

**Wilson, Edward M., Peter A. Hartman, and Karen M. Vander Linde**

- 1980 Report to the U.S. Department of Agriculture on Strengthening 1890 Land-Grant Institutions. Washington, D.C.: USDA.