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The Second Morrill Act

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THE SECOND MORRILL ACT

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BY

JOHN D. KING

THESIS

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INTRODUCTION

In the spring of 1891 George Howard, a Professor of History at the University of Nebraska, shared with the world his surprise at a new development in higher education. "Almost before society is aware of it," he wrote, "there has come into existence an American system of public universities, at once the complement and the crown of an American system of public schools."[1] The public universities to which he referred were state-supported, federally endowed land-grant colleges. And the occasion for his observation was the signing into law on August 30, 1890, of the Second Morrill Act.[2] Almost alone among his contemporaries, Howard saw that law as a very significant step in the development of American higher education.

The Act bore the name of Senator Justin Smith Morrill of Vermont. Earlier, as a member of the House of Representatives, he had sponsored the Land-Grant Act of 1862. That bill had distributed a portion of the federally owned public domain to the states for the purposes of endowing colleges which would include in their programs agricultural and mechanical studies. Ten years later Morrill had be-

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[1] George E. Howard, "The State University In America," Atlantic Monthly, LXVII (March, 1891), 336.

[2] Second Land-Grant Act (Second Morrill Act), Statutes at Large, XXVI, 417-19 (1891).. This and other statutes related to the land-grant colleges are reproduced or summarized in Henry S. Brunner, Land-Grant Colleges and Universities, 1862-1962, U. S. Office of Education Bulletin No. 13 (Washington, D. C.: Government Printing Office, 1962), pp. 54-71. (Hereinafter referred to as Land-Grant Colleges.)

gun an attempt to get some additional federal support for the young land-grant schools which the 1862 law had sponsored. His Second Morrill Act of 1890--technically, the Second Land-Grant Act--marked the successful completion of that campaign. It turned out to have been an eighteen-year effort.

The law provided for an annual appropriation to the states on behalf of the colleges. Initially set at $15,000, the grants were to increase by annual increments of $1,000, until they reached a ceiling of $25,000 per year. In the words of the Statute itself, there was to be

> annually appropriated, out of any money in the Treasury not otherwise appropriated, arising from the sales of public lands, to be paid as hereinafter provided, to each State and Territory for the more complete endowment and maintenance of colleges for the benefit of agriculture and the mechanic arts now established, or which may be hereafter established, in accordance with an act of Congress approved July second, eighteen hundred and sixty-two, the sum of fifteen thousand dollars ...and an annual increase of the amount of such appropriation thereafter for ten years by an additional sum of one thousand dollars over the preceding year, and the annual amount to be paid thereafter shall be twenty-five thousand dollars to be applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural and economic science, with special reference to their applications in the industries of life, and to the facilities for such instruction.[3]

The vocabulary indicated three significant changes from that of 1862. First, the aid initiated in 1890 was to be in money rather than in land and land scrip. Second, the funds were to be distributed to the

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[3]Second Land-Grant Act, Statutes at Large, XXVI, sec. 1, 417-18 (1891).

states in equal shares rather than according to population. And, third, the 1890 Act went beyond its predecessor in attempting to limit the uses to which the grants could be put.

There were four basic restrictions imposed on the use of the appropriations. First, only certain areas of instruction were to be supported, as indicated in the Section of the Act quoted above. Second, the states were to pass concurring legislation to qualify for the grants.[4] By this they became responsible for seeing to it that the provisions of the law were followed by the colleges and for reporting annually the programs for which the money was used. If the reports were unsatisfactory, the Secretary of the Interior was given the authority to withhold funds, though the states were given the right to appeal to Congress for a reversal if such action were ever taken by the executive branch.[5] Third, the presidents of the colleges were required to submit annual reports to the Secretaries of Agriculture and the Interior "regarding the condition and progress of each college, including statistical information in relation to its receipts and expenditures, its library, the number of its students and professors, and also as to any improvements and experiments made under the direction of any experiment stations attached to said college."[6] Finally, the law specified that "no money shall be paid out...for the support and maintenance of a college where a distinction of race or color is

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[4] Ibid., sec. 2, p. 418.

[5] Ibid., sec. 4, p. 419.

[6] Ibid., sec. 3, p. 419.

made in the admission of students," though it went on to acknowledge that separate institutions for the races would qualify a state for the grants so long as the money was divided between them equitably.[7]

Three historical issues can productively be considered in relation to the Second Morrill Act: ultimate cause, immediate cause, and effect. Or, to amplify a bit, what movements and forces during the preceeding decades led to the Act's passage? Why was the Act passed in 1890, when, in one form or another, it had been rejected by Congress several times during the previous eighteen years? And what has been the enduring significance of the Act in the years since its becoming law?

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[7] Ibid., sec. 2, p. 418.

I. BACKGROUND OF THE ACT

The United States of 1890 was a growing nation in an expansive mood. Population had risen by over 25 per cent to nearly sixty-three million in just ten years. And the popular literature of the era reflects a people bent on knowing, doing, and achieving more than ever before. Americans read of the art and architecture of Russia, the religious strife of Ireland, and the adventures of Dr. Stanley in Africa. Closer to home, they looked to the South and dreamed of a canal, and looked to the North and toyed with the idea of annexing Canada. Political debate dealt with tariffs and trade, the merits of civil service and the inefficiencies of Congress. Reformers and reactionaries alike fretted about race and war, the role of women and the rise in divorce. Prohibition was emerging as an avidly endorsed solution to social ills. All things scientific found an enthusiastic following. For the sophisticated, there was still time to take sides in the debate over the theories of Charles Darwin. For the merely curious, there was a choice of the strange and intriguing--from the newly perfected electric chair to experiments conducted with animals amazingly still alive. And enough time had passed for America to begin to reminisce about the Civil War's glories without feeling too much its pain.[8]

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[8] Senator Morrill found the time to contribute to the popular discussion of at least two such issues: the annexation of Canada and the tariff. See his articles "Is Union with Canada Desirable?," Forum, VI (January, 1889), 451-64, and "Free Trade or Protection," North American Review, CL (March, 1890), 281-300

Perhaps the strongest and most rapidly growing impulse in the political realm was that of nationalism and national unity. For nearly a half century the country had lived with its vast territory rounded out and secure from external threat.[9] But much of that tremendous resource had long been virtually unused. Now "the census of 1890 officially recorded the disappearance from the census map of the continuous frontier line of two to six persons per square mile."[10] The land which had been rounded out and secure for so long was beginning to be filled in and put to work. With that development came a growing sense of national unity. Sectionalism between North and South, East and West continued to be a force to be reckoned with, but improvements in transportation and communication had already begun their work of whittling away regional differences.[11]

If nationalism and unity were preparing America psychologically for becoming a world power, industrialism and the growth of the cities were readying the means. Immigrants and rural folk alike moved to the swelling cities, lured by the security of living on wages. Certainly the life of the working man and his family was not always a happy or an easy one. But interpretations of the era which emphasize only the

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[9] Carl Russell Fish, The Rise of the Common Man, Vol. VI of A History of American Life, ed. by Arthur M. Schlesinger and Dixon Ryan Fox (New York: The Macmillan Company, 1927), p. 329.

[10] Roy M. Robbins, Our Landed Heritage: The Public Domain, 1776-1936 (New York: Peter Smith, 1950), p. 276. (Hereinafter referred to as Our Landed Heritage.)

[11] Edward H. Reisner, Nationalism and Education since 1789, a Social and Political History of Modern Education (New York: The Macmillan Company, 1922), pp. 476-78. (Hereinafter referred to as Nationalism and Education.)

exploitations of the working poor are probably one-sided.[12] Indeed, the fledgling labor movement was beginning to win some victories on behalf of its members, and the Knights of Labor was at the height of its power between 1880 and 1890.[13] Even the shorter work day was beginning to be discussed by workers as an obtainable goal.[14] Whatever the human costs may have been, it cannot be denied that business and manufacturing prospered and grew at rates never before dreamed possible. And this gave the America of 1890 much of its flavor. The popularity of the success stories of Horatio Alger was but one symptom of the way in which people were accepting he business world as a model for life.[15] It is probably an overstatement of degree only to say that "the desire to create wealth possessed all Americans."[16]

The world of scholarship nurtured a similar sense of optimism. The evolutionary theories of Charles Darwin had been debated since soon after the Civil War. Translated into social terms, Darwin's notions seemed to encourage the individualism and competitiveness Ameri-

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[12] Samuel P. Hayes, The Response To Industrialism: 1888-1914, a vol. in The Chicago History of American Civilization, ed. by Daniel J. Boorstin (Chicago: The University of Chicago Press, 1957), pp. 188-193. (Hereinafter referred to as Response to Industrialism.)

[13] Alfred Charles True, A History of Agricultural Education in the United States: 1785-1925, U. S. Department of Agriculture Miscellaneous Publication No. 36 (Washington, D. C.: Government Printing Office, 1929), pp. 120-21. (Hereinafter referred to as Agricultural Education.)

[14] New York Times, May 2, 1890, p. 2.

[15] Haye, Response to Industrialism, p. 22

[16] Ibid., p. 20

cans were coming to value.[17] More importantly, along with two other developments--the decrease of traditional religious authority[18] and the increase of scientific information flowing from Europe[19]--the debate over Darwin stimulated the scientific community as nothing else had done.[20] Application of experimental methodology increased in academic institutions, and the feeling grew that no problem was so great that it would not yield--sooner or later--to rigorous scientific inquiry. The optimism of the professionals was shared by at least some of the public, as the growing circulation of magazines such as Popular Science Monthly showed.[21]

The mood of national confidence and expansiveness which perceived American business as the keystone of national health was reflected in the political realm. Since the 1870's the interests of business had been well served by the federal government through a consistent policy of maintaining a high protective tariff.[22] The most important challenge to that policy before 1890 had apparently been

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[17]Richard Hofstadter, Social Darwinism in American Thought, revised ed. (Boston: Beacon Press, 1955), pp. 201-204.

[18]Edward Danforth Eddy, Jr., Colleges for Our Land and Time: The Land-Grant Idea in American Education (New York: Harper and Brothers, 1957), pp. 1-2. (Hereinafter referred to as Colleges.)

[19]Fish, The Rise of the Common Man, pp. 333-34.

[20]Allan Nevins, The Emergence of Modern America: 1865-1878, Vol. VIII of A History of American Life, ed. by Arthur M. Schlesinger and Dixon Ryan Fox (New York: MacMillan Company, 1927), pp. 286-89. (Hereinafter referred to as Emergence of America.)

[21]Ibid., p. 282.

[22]True, Agricultural Education, p. 120.

successfully defeated. With fifteen months remaining of his first term in office, the Democratic President, Grover Cleveland, had issued a call for tariff reduction.[23] His control of the Convention of his party in June, 1888, was so complete that both his renomination and the tariff reduction plank in the platform were assured.[24] In contrast, the Republican Convention, held in Chicago later that month, was a stormy one. When it was done, the efficient pre-Convention efforts of Benjamin Harrison of Indiana had borne fruit, and the Republican nomination for the Presidency was his.[25] He waged a vigorous and well organized campaign during the fall, cleverly allying the Republicans with a program which would reduce some tariffs while keeping at a high level those which protected domestic manufacturing.[26] Though Harrison lost the popular vote in November, his success in New York and Indiana gave him a majority of the electoral votes and the Presidency. With the Republicans in control of both the executive and legislative branches of the national government, it appeared that business could look forward to four years of expansion unhindered by undue government interference.

It was in three other areas of national life, however, that

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[23] "Cleveland's Third Annual Message to Congress, Washington, December 6, 1887," reprinted in Arthur M. Schlesinger, Jr., and Fred L. Israel, eds., History of American Presidential Elections: 1789-1968, II (New York: Chelsea House Publishers, 1971), 1663-72. (Hereinafter referred to as Presidential Elections.)

[24] Robert F. Wesser, "Election of 1888" in Schlesinger and Israel, eds., Presidential Elections, II, 1622.

[25] Ibid., pp. 1631-35.

[26] Ibid., pp. 1647-40.

that developments were taking place which were to prove more important in preparing the way for the Second Morrill Act. These areas were agriculture, education, and federal land policy.

Agriculture, in 1890, was in the midst of rapid growth and change. The value of farm property was more than doubling within a decade, and the total value of America's farm crops was more than tripling in the same amount of time.[27] The agrarian interest in free settlement of Western lands had won a significant victory with the passage of the Homestead Act in 1862, and agriculturists had gone on to be the major part of the speedy settlement of the new territories.[28] The farming of those vast new areas was made possible by the introduction and spread of such technical marvels as the steel plow, the reaper, the combine, and steam power.[29] More than any other factor, these new machines brought change to the farm.[30] Land heretofore untillable came into production, and the rapid spread of new techniques such as irrigation changed radically the sorts of things farmers had to know.[31] It was little wonder that the magazines they read used most of their pages to share information about new gadgets, new methods, and new techniques.

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[27]Eddy, Colleges, p. 82.

[28]Ibid., p. 47. Paul W. Gates, "Western Opposition to the Agricultural College Act," Indiana Magazine of History, XXXVII (June, 1941), 104.

[29]Hays, Response to Industrialism, p. 14.

[30]Fish, The Rise of the Common Man, pp. 326-27.

[31]True, Agricultural Education, p. 121.

But not all was well for the farmer. Difficult though it is to obtain a clear picture of the financial realities of American agriculture during the late nineteenth century, it is nevertheless highly probable that, "for much of the three decades before 1897, large portions of the farming population had no financial security."[32] For one thing, the farmers of the West came to be at the mercy of the railroads and the "middlemen" on whom they had to depend for getting their produce to the distant major markets.[33] The railroads were not above using this situation to their advantage, and it has been conclusively demonstrated that their freight rates West of the Mississippi River were considerably higher than elsewhere.[34] The Department of Agriculture itself laid at least half the blame for the agricultural ills of 1890 at the feet of the carriers and middlemen.[35]

There were other problems, too. The dependence on machinery created a demand for credit which drove interest rates up.[36] The machines themselves were often over-priced, since their monopolistic manufacturers, protected by patents, didn't have the pressure of competition to make them do otherwise.[37] On top of that, even the

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[32]Fred A. Shannon, The Farmer's Last Frontier: Agriculture, 1860-1897, Vol. V in The Economic History of the United States, ed. by Henry David and others (New York: Harper and Row, 1945), p. 291. (Hereinafter referred to as The Farmer's Last Frontier.)

[33]Robbins, Our Landed Heritage, p. 271.

[34]Shannon, The Farmer's Last Frontier, pp. 296-98.

[35]New York Times, March 22, 1890, p. 3.

[36]Shannon, The Farmer's Last Frontier, p. 304.

[37]Ibid., pp. 302-303.

weather was bad, the 1880's seeing the beginning of a ten-year drought in the West.[38] The Panics of 1873, 1884, and 1887 were the worst times for farmers, but farm prices lagged behind the rest of the economy throughout the period.[39] In one way or another, all regions were affected.[40] In agriculture, at least, Darwin's theories seemed to have been proved true. The "fittest" survived, grew, and absorbed more and more land, but many more either barely hung on or had to leave farming altogether.[41]

It may be a moot point whether expansion or depression is the better description of agriculture just before 1890. The issue was argued even then. One writer held that farmer discontent was based mostly on illusion.[42] But another argued that things actually were as bad as they seemed.[43] What is certain, however, is that farmers perceived themselves to be falling behind their urban cousins. Whether their analysis was correct or not, their discontent was very real.[44]

If agriculture gave the impression of having growing pains, that image was even more appropriate for the field of education.

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[38] Ibid., pp. 307-308.

[39] Ibid., p. 294.

[40] Ibid., p. 295. C. F. Emerick, "Agricultural Discontent," Political Science Quarterly, XI (September, 1896), 463.

[41] Robbins, Our Landed Heritage, pp. 273-76.

[42] Emerick, "Agricultural Discontent," p. 438.

[43] C. Wood Davis, "When the Farmer Will Be Prosperous," Forum, IX (May, 1890), 348-60.

[44] Hays, Response to Industrialism, pp. 28-29.

Three areas of growth were present in all the particular changes: the increase of the scope and function of education, the increase of the public resources committed to education, and the increase of the sought-for quality of education.[45] All this contributed to a period of rapid expansion for almost all educational institutions, but this was particularly true for those which were identified with the pragmatic tradition which had long shaped American schooling.[46]

Among the common schools change came most dramatically in the area of curriculum. The utilitarian spirit was strong, and new fields of study from economics to typewriting began to replace traditional subjects such as Greek and rhetoric.[47] Industrial education--or manual training--had perhaps the strongest lobby. Some advocates argued its superiority as a shaper of right habits.[48] Others spoke for its support of democratic ideals.[49] And at least one devotee praised manual training as a device by which American boys might win

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[45]Charles Franklin Thwing, A History of Education in the United States Since the Civil War (Boston: Houghton Mifflin Company, 1910), p. 3. (Hereinafter referred to as History of Education.)

[46]Earle D. Ross, Democracy's College: The Land-Grant Movement in the Formative Stage (Ames, Iowa: The Iowa State College Press, 1942), p. 2. (Hereinafter referred to as Democracy's College.)

[47]Merle E. Curti, The Social Ideas of American Educators (New York: Charles Scribner's Sons, 1935), pp. 207-208.

[48]Francis Newton Thorpe, "Manual Training as a Factor in Modern Education," Century Magazine, XXXVIII (October, 1889), 920-27.

[49]Felix Adler, "The Democratic Ideal in Education," Century Magazine, XXXVIII (October, 1889), 927-30.

back the factory jobs being taken over by immigrants.[50] Not everyone was pleased by change--the Knights of Labor, for instance, opposed many an educational innovation--but the schools, particularly the high schools, grew in number and size at a more rapid rate than ever.[51]

Higher education presented an even more diverse picture of change. Indeed, there was so much diversity by 1890 that one contemporary analyst admitted that "one of the chief difficulties...has been to determine what schools should be classified as institutions of higher education."[52] Universities were obviously a part of higher education and cooking schools were not, but what about normal schools, technical institutes, "junior" colleges, and so on? Whatever answer might have been given, it was clear that two kinds of institutions were at the heart of American higher education. The first was the state university, then gaining its widest acceptance in the West and the South. It was an institution still in development, but it had already established its secularity.[53] Too, it had grown along demo-

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[50] Thomas Davidson, "Teaching the Mechanical Arts," Forum, VI (December, 1888), 382-391.

[51] Curti, The Social Ideas of American Educators, p. 239. Arthur Beverly Mays, "The Concept of Vocational Education in the Thinking of the General Educator, 1845 to 1945," University of Illinois Bulletin, XLIII (July, 1946), 56.

[52] Frank W. Blackmar, The History of Federal and State Aid to Higher Education in the United States, U. S. Bureau of Education Circular of Information No. 1 (Washington, D. C.: Government Printing Office, 1890), p. 9. (Hereinafter referred to as Federal and State Aid.)

[53] Ross, Democracy's College, p. 5. Horace E. Scudder, "The State, the Church, and the School," Atlantic Monthly, LXIII (June, 1889), 786-93. Charles Sprague Smith, "The American University," Education, VIII (October, 1887), 103.

cratic, non-elitist lines, and thus it had a uniquely American character when compared with its European counterparts.[54] The second institutional type was the privately or ecclesiastically endowed, four-year college, some of which were themselves on the threshold of becoming true universities. The biggest and best of these grew with the times, but the smaller ones were already beginning to fear the coming competition with state-supported education. Their apologies for their unique gifts appeared frequently in popular magazines.[55] Still, the universities and colleges--whether public or private--had much in common. For instance, they both served larger and larger enrollments. The ratio of college students to the whole population in 1870 was 1 to 2,012. By 1886 it was down to 1 to 1,400.[56] And both kinds of schools continued to feel the need for more and more funds.[57]

The greatest struggles within all these institutions, however, were caused by the movement to improve their quality. It has been said fairly that "nothing was more typical of the intellectual immaturity of the United States in 1865 than the state of its higher

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[54]Charles Eliot, "The New Education: Its Organization," Atlantic Monthly, XXIII (February, 1869), 216. Edward J. Lowell, "A Liberal Education," Atlantic Monthly, LXI (January, 1888), 90.

[55]For example, see William DeWitt Hyde, "The Future of the Country College," Atlantic Monthly, LXII (December, 1888), 721-26; and "Value of the Small Colleges," Century Magazine, XXXIX (January, 1890), 473-74.

[56]Bleckmar, Federal and State Aid, p. 36.

[57]David J. Hill. "The Cost of the Universities," Forum, VIII (November, 1889), 297-304.

education."[58] Even the best colleges were weak. Harvard struggled with an inadequate staff, Yale was torn by disputes among the clergy who dominated it, and Princeton offered an antiquated curriculum. One of the first persons to call for reform was Charles William Eliot, who became President at Harvard as the decade of the sixties came to a close. In his inaugural address he affirmed that "what is technically called a quiet term cannot be accepted as the scene of university success."[59] He went on to call for a pursuit of excellence for higher education. He wished colleges to break out of their pattern of strictly classical education and, instead, to offer studies which would include the growing sciences and the new humanities. Not content to challenge only his peers, he took his concerns to the public in a series of magazine articles.[60] He even went so far as to propose the radical notion that, for at least part of their college career, students ought to be able to elect which courses to take.

Notions such as these gave rise to a lively debate that persisted even beyond 1890. The ground rules for the discussion were, for the most part, agreed to by both sides. The consensus--in the words of one of Eliot's later adherents--was that "each study must be examined, to see what it can do for the mental development of the student, and only that part of it in which this feature is prominent can

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[58] Nevins, Emergence of America, p. 264.

[59] Charles Eliot, "Inaugural Address," in Richard Hofstadter and Wilson Smith, eds., American Higher Education: A Documentary History (Chicago: The University of Chicago Press, 1961), II, 601-24. (Hereinafter referred to as American Higher Education.)

[60] Eliot, "The New Education: Its Organization," pp. 203-20.

be admitted in the college course,"[61] But, where such an assumption led that writer to argue in favor of such disciplines as political science, economics, and psychology, the same quest for foundations for mental development led others to a rigorous defense of the classics. Indeed, until 1890, the classicists probably received support from a majority of the educational establishment. "On the whole, the thinking of most leaders during the closing years of the nineteenth century betrayed a fear that the traditional cultural forms of school education would be displaced by some sort of vocational education that would be wholly utiliterian and the 'higher faculties of the mind' would be utterly neglected."[62] Some classicists fought to delay change by proposing that teaching technique--not subject matter--was the only appropriate area for innovation.[63] Others sought to appease the scientists by offering them free rein at the preparatory level, if they would stay out of the colleges.[64] Still others just reacted negatively to anything which seemed "new-fangled."[65] Occasionally even a thoroughgoing scientist would speak up for the merits of classical studies.[66]

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[61]Simon N. Patten, "The Educational Value of College Studies," Educational Review, I (February, 1891), 109.

[62]Mays, "The Concept of Vocational Education in the Thinking of the General Educator, 1845 to 1945," p. 53.

[63]E. R. Sill, "Should a College Educate?," Atlantic Monthly, LVI (August, 1885), 215.

[64]W. G. Hale, "Is Classical Education Practical Education?," Academy: A Journal of Secondary Education, II (June, 1887), 208.

[65]M. M. Wheeler, "The Machine in Education," Education, II (January, 1882), 303.

[66]Clarence King, "Artium Magister," North American Review, CXLVII (October, 1888), 369-84. The identification of King is from Nevins, Emergence of America, p. 283.

But he was the exception, and science became the practical force which finally carried the day for the reformers.[67] Sound scientific scholarship had its beginnings in America not in the colleges but in the purely technical institutes. West Point, established in 1802, was the first, though the Rensselaer Institute, founded in 1824, was probably the most influential.[68] But two outside forces encouraged the colleges to adopt some of the institutes' techniques. One was the increasing need of industry and agriculture in the final third of the nineteenth century for technically and scientifically trained personnel. The other was the growing number of students, influenced in their preparatory years by teachers indoctrinated at normal schools to encourage scientific observation and inquiry, who wanted more of the same at college.[69] At some schools they found their desire met, particularly at Eliot's Harvard, Andrew D. White's Cornell, and Daniel Coit Gilman's Johns Hopkins.[70] But, in 1890, the advance of scientific studies was still far from complete. Really serious students still preferred to take their scientific curiosity to Europe, not only because it was cheaper to be educated there but also because of the still unchallenged superiority of European instruction and laboratories.[71]

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[67] Ross, Democracy's College, p. 9.

[68] Ibid., pp. 11-12.

[69] Ellwood P. Cubberly, Public Education in the United States: A Study and Interpretation of American Educational History, revised and enlarged ed. (Boston: Houghton Mifflin Company, 1934), p. 386.

[70] Hofstadter and Smith, eds., American Higher Education, p. 594.

[71] Samuel Sheldon, "Why Our Science Students Go to Germany," Atlantic Monthly, LXIII (April, 1889), 463-66.

The desire to include scientific studies in the curriculum finally led some of the older schools to modify their academic programs. By 1884 Eliot had brought his system of elective courses into being at Harvard.[72] From the distant, ivy-covered towers of Princeton came a sharp rejoinder; President James McCosh rejected the elective scheme.[73] He even brought God to his side by fretting over the hypothetical Senior who, feeling called to the ministry of the Gospel, could not respond, because his school had not required of him the essential studies in Greek. McCosh quickly picked up ideological allies.[74] He even journeyed to New York City--neutral ground, presumably--to engage Eliot in public debate.[75] But this issue, too, remained an open one as the eighties ended with each college going its own way according to its own best lights.

The role of women in higher education was left similarly unresolved. Some beginnings had been made in the teaching of "domestic science" in the first half of the nineteenth century.[76] Oberlin College's daring experiment with coeducation found a growing number of imitators, particularly in the West. And the East saw the found-

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[72] "Liberal Education of the Future," Nation, XXXVIII (June 26, 1884), 542-43.

[73] Hofstadter and Smith, eds., American Higher Education, pp. 715-30.

[74] For example, see S. Newcomb, "President Eliot on a Liberal Education," Science, III (June 13, 1884), pp. 704-705; and Sill, "Should a College Educate?," p. 208.

[75] Nevins, Emergence of America, p. 270.

[76] Isabel Bevier and Susannah Usher, The Home Economics Movement (Boston: Whitcomb and Barrows, 1906), p. 12.

ing of at least three schools—Vassar, Smith, and Wellesley—which dared to be for women only. But no national pattern was yet to emerge.

Lest it be thought that students were simply passive bystanders in these decades of change, it should be noted that student activism is not a twentieth century invention. To be sure, much student "activity" was simply for entertainment. Rowdiness was prevalent enough to lead one moralist to conclude that "it cannot be denied that there is much reason for fear."[77] Another writer was moved to suggest that college communities provide more rigorous law enforcement.[78] But, from time to time, students channeled their energies into public demonstrations protesting administrators' decisions.[79] And even alumni were known to make attempts at redirecting their alma maters' priorities.[80]

The one issue which did seem to be settled by the eighties was the question of federal aid to higher education. It appeared that the land-grants authorized in 1862 were as far as the national government would ever go. In 1872 Senator Morrill had proposed legislation which would have increased the federal endowment of the land-grant colleges. (See section II.) Among presidents of privately

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[77]Nathaniel Southgate Shaler, "The Problem of Discipline in Higher Education," Atlantic Monthly, LXIV (July, 1889), p. 24.

[78]S. C. Bartlett, "College Disturbances," Forum, IV (December, 1887), 424.

[79]New York Times, January 3, 1889, p. 8.

[80]"Real Weakness of American Universities," Nation, XXXVI (May 3, 1883), 377.

run schools, this was perceived as a threat to their institutions, and they quickly organized a lobbying effort to fight the Morrill bill. On this even James McCosh and Charles Eliot were agreed, and they led the battle--first in the National Educational Association and then in Congress--to have the federal aid plan defeated. Their arguments were ably answered by President White of Cornell in 1874, but by then it was too late. The political efforts of the private educators were skilled and forceful, and they proved to be unbeatable.

The defeat of Morrill's bills of 1872-74 was so thorough that most college personnel assumed the issue of federal aid had been permanently settled.[81] The one exception to that was the notion of establishing a federally supported, truly national university. The idea was an old one, having been proposed by George Washington and endorsed by the American Philosophical Society well before the nineteenth century began.[82] It was Andrew D. White who revived the plan in 1888.[83] And he found support.[84] As 1890 began, it seemed to many that the national university was the only way to lead the national government beyond its 1862 commitment to a more substantial involvement with higher education.

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[81]Ross, Democracy's College, pp. 173-75. Blackmar, Federal and State Aid, pp. 35-56.

[82]Ross, Democracy's College, p. 7.

[83]Andrew D. White, "The Next American University," Forum, V (June, 1888), 371-82; "The Need of Another University," Forum, VI (January, 1889), 465-73; and "A University at Washington," Forum, VI (February, 1889), 622-33.

[84]William A. Mowry, "A National University--A Study," Education, X (October, 1889), 73-90.

It was the land-grant movement--the desire to attain federal support for education by means of grants from the public domain--which made federal land policy the third significant area of background for understanding the Second Morrill Act. Before the middle of the nineteenth century a series of congressional acts had radically altered the way the United States used its public land. Earlier, the policy had been to hold public land, leasing it for causes which were in the national interest and/or which produced significant revenue for the central government. But, beginning in 1841, the trend moved rapidly toward a policy which would dispose of public lands by means of sale or grant. The Preemption Act (1841), the Townsites Act (1844), the Mineral Lands Act (1846), the Swamplands Acts (1849 and following), and the Military Bounty Acts (1846-56) all made it possible for certain individuals, corporations, and lower governmental units to take title to portions of the federally owned public domain.

By 1850 there were enough favorable votes in Congress to begin the biggest of the grant programs, the provision of land for the railroads. During the administration of President James Buchanan (1857-61), such giveaways were temporarily halted. In 1857 he vetoed a bill which became the prototype of the later Land-Grant Act, and in 1860 he vetoed a homestead bill. Both actions were taken in the name of protecting states' rights. But the election of Republican Abraham Lincoln as President in 1860 again brought to power a party committed to disposal of federal land in the public interest. The secession of the Southern states and the absence of their representatives from Congress consolidated Republican control and opened the door to their

having their way. In the late spring and early summer of 1862 Lincoln signed into law a quick succession of acts which put land in the hands of colleges, homesteaders, and--once again--railroads. Republican domination of the government continued the policy into the seventies and beyond. No one benefited more than the railroads which, by 1871, had received from the U.S. over 129,000,000 acres of land.[85]

But the policy bore the seeds of its own destruction. First, grants were made in such a way that abuses and scandals were almost inevitable. By the late seventies it was "obvious that the forces in the settlement of the public domain were becoming more and more monopolistic and consequently less and less democratic."[86] And so a reform movement grew up, seeking to slow the pace of land being given away. The first to suffer were the railroads, whose access to the public domain was halted in 1871. During the first administration of Grover Cleveland, the government even began to take back railroad land which had not been appropriately used. Sentiment for reform was so strong by then that the Republicans themselves finished the job of railroad retrieval in 1890.[87] The second seed of destruction was the simple, mathematical one: land could be given away only so long as it was available. By the eighties it was clear that the best acreage

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[85] Robbins, Our Landed Heritage," pp. 89-91, 150-61, 168, 181, 203-207, 218.

[86] Ibid., p. 268.

[87] Ibid., pp. 236-79.

was already gone, and there were pleas for the government to be very careful about disposing of what was left.[88]

This was important to higher education, for land had been the sole way that colleges had received fedral support. "The history of the relation of the national government to the education of the American people is chiefly of a pecuniary character; and its pecuniary character is in the main, and in the early stages, limited to the question of the distribution of the public lands."[89] Precedent for land-grant aid to higher education was very old, for the English universities at Oxford and Cambridge had been endowed in this way. Understandably, the same pattern was followed in the American colonies, much to the benefit of Harvard, Yale, William and Mary, Dartmouth, and Princeton.[90] The newly independent United States early affirmed the same practice of supporting colleges with grants of land. The Ordinance of 1787 for the Northwest Territories reserved land for the endowment of at least one "literary institution" beyond the secondary level in each territory. The provisions of this act were further extended in later years, and several states received the additional bounty of special grants made to colleges within their borders.[91] Long before 1862, then, the federal government had taken a role in

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[88] J. Laurence Laughlin, "Political Economy and the Civil War," Atlantic Monthly, LV (April, 1885), 449.

[89] Charles F. Thwing, "The National Government and Education," Harper's New Monthly Magazine, LXVIII (February, 1884), 471.

[90] Eddy, Colleges, pp. 20-22.

[91] Blackmar, Federal and State Aid, pp. 44-53.

the support of higher education, although the motivation was not exclusively altruistic. There was also "something of the real estate promoter who desires to make attractive the conditions of land purchase and residence in a new community."[92]

Out of all this there came two movements which were to be, in their interaction with one another during the decades prior to 1890, the soil in which the Second Morrill Act grew. The first was the development and growth of the land-grant colleges themselves. The second was the founding and expansion of agricultural organizations which, because of the peculiar nature of the land-grant schools, took particular interest in their progress.

92Reisner, Nationalism and Education, p. 342.

II. ORIGINS OF THE ACT

In 1862 the Republicans' need for agricultural support and their willingness to legislate the giving away of federal land had intersected with education's new interest in practical schooling. The result was the Land-Grant Act. This stood with the Homestead Act and the creation of the Department of Agriculture (under the Department of the Interior) as an intended fulfillment of campaign pledges made to the agrarian West.

The movement which produced the Act began in the 1850's. Several states were establishing agricultural colleges, and many of them began to look to the federal government for financial help. Despite the fact that the Morrill Act later took on a Western character--these states did a more aggressive job of using the Act's provision to found new schools--the greatest promotion of the idea was being done in the Northeast. There grants of land on behalf of agricultural colleges had the merit of being a way to prevent all of the public domain being used to Western advantage.[93] The first serious attempt to legislate such grants was made in 1857. The bill, introduced by Representative Justin Morrill, passed both Houses, though by close votes. But it ran afoul of President Buchanan's opposition to federal legislation concerning matters traditionally

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[93] Robbins, Our Landed Heritage, p. 158.

in the purview of the states. His veto led supporters of the agricultural schools to turn their attention back to the state legislatures.[94]

But the sponsor of the bill in Congress was not easily discouraged. He only waited for another opportunity. Justin Smith Morrill came naturally by an interest in agricultural and mechanical education.[95] Born in 1810 in his life-long hometown of Strafford, Vermont, he grew up in the home of a blacksmith father who supplemented the family income by farming a small acreage. As a young man Justin Morrill had prepared for college, but he turned aside for a career in business instead. He was successful enough as a retailer that, by the late 1840's, he had the resources and the time to pursue additional interests. Known as a self-educated man, he had the opportunity in 1848 to become a Trustee of Norwich University in Vermont. That apparently was not enough challenge. He chose instead to invest himself in politics. Morrill became active in the Whig Party, and, in 1854, he was elected on that ticket to a seat in the United States House of Representatives. His victory was by the scant margin of fifty-nine votes, but that was the closest Morrill ever came to electoral defeat. That first election began what turned out to be the longest continuous service in the U.S. Congress to be logged by anyone

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[94]Gates, "Western Opposition to the Agricultural College Act," p. 119.

[95]A brief biographical sketch of Morrill can be found in True, Agricultural Education, pp. 95-97. The only full-length biography is William Belmont Parker, The Life and Public Services of Justin Smith Morrill (Boston: Houghton Mifflin Company, 1924). (Hereinafter referred to as Life of Morrill.)

prior to the twentieth century.

Morrill was described by his admiring biographer as a true son of Vermont--"Puritan, incorruptible, sagacious, modest, frugal, faithful to duty."[96] He never did master the art of impromptu debate, but, throughout his career in the House and later in the Senate, he was noted for his well prepared speeches and the diligent shepherding of his bills.[97]

Congressman Morrill's exact role in the passage of the Land-Grant Act of 1862 was, for a time, the subject of much discussion. Morrill himself--never one to be accused of the vice of false modesty--always claimed full credit for being the bill's sole author.[98] For a half century this was the accepted view. But, in 1910, Edmund James, then President of the University of Illinois, claimed to have proof that it was not Morrill but one Jonathan Baldwin Turner of Illinois who had, in fact, written the land-grant proposal. Only then, according to James, had it been placed in the Vermont legislator's hands for action.[99] Turner, an 1833 graduate of Yale, had been a professor at Illinois College in Jacksonville. Beginning in

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[96]Parker, Life of Morrill, p. viii.

[97]Memorial Addresses on the Life and Character of Justin S. Morrill Delivered in the Senate and House of Representatives (Washington, D. C.: Government Printing Office, 1899), p. 25. (Hereinafter referred to as Memorial Addresses.)

[98]True, Agricultural Education, pp. 98-99.

[99]Edmund J. James, The Origin of the Land Grant Act of 1862 (the So-Called Morrill Act) and Some Account of Its Author, Jonathan B. Turner, University of Illinois Studies, Vol. IV, No. 1 (Urbana-Champaign: University Press, 1910).

1848, he had worked hard to get his state to found a college where men could be educated in agriculture and engineering. His ideas were well developed and widely circulated. It even turned out that a few persons had wanted him to have the credit for the Land-Grant Act before it was even passed.[100]

But the only concrete evidence James could advance in support of his thesis was one letter written by Morrill to Turner in late 1861. It was apparently a response to something sent by Turner. The full body of the letter read:

> "I presume I recognise Professor Turner, an old pioneer in the cause of ag. education.
>
> "I have only to say that, amid the fire, smoke, and embers, I have faith that I shall get my bill into a law at this session.
>
> "I thank you for your continued interest."[101]

Certainly, then, the two men did correspond, but the one letter was hardly convincing proof of much more than that. Written less than half a year before Morrill's bill became law, it seemed to indicate that the communication between the men was fairly new. Yet Morrill had put a similar bill before Congress five years earlier. If Turner had had a role as author, it would have had to have been then--not at the time of the letter.

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[100]Burt E. Powell, The Movement for Industrial Education and the Establishment of the University: 1840-1870, Semi-Centennial History of the University of Illinois, Vol. 1 (Urbana: University of Illinois, 1918), p. 120. (Hereinafter referred to as Establishment of the University.)

[101]Letter, Justin S. Morrill to J. B. Turner, December 30, 1861, Illinois Historical Survey, Papers of Jonathan Baldwin Turner.

Morrill's biographer was probably correct in guessing that James had argued for Turner's importance more out of regional zeal than scholarly rigor.[102] At any rate, the debate James started did prove helpful. At its end it was clear that, although Morrill was the only author of the bill which took his name, he did depend both ideologically and politically on the broad group of educator reformers of which Turner was a member.[103]

Turner himself exerted his greatest influence not on the national scene but in Illinois. The Land-Grant Act made possible the founding of the Illinois Industrial University (later the University of Illinois), the goal which had eluded him for so long. Turner led a vigorous campaign to get the new school located in Jacksonville.[104] Even though that effort lost, he continued to be a patron and effective lobbyist for the University through the seventies.[105] By the eighties, however, his interests had turned more to church politics and theology. His role in the Second Morrill Act is much clearer than in the first: none.

The Land-Grant Act of 1862, the product of both a man and a movement, was simple in its provisions. Each state which took concurring action was to receive 20,000 acres of land or land scrip for

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[102] Parker, Life of Morrill, pp. 262 ff.

[103] Earle D. Ross, "Contributions of Land-Grant Colleges and Universities to Higher Education," School and Society, XC (May 5, 1962), 232. Earle D. Ross, "The 'Father' of the Land-Grant Colleges," Agricultural History, XII (April, 1938), 151-66.

[104] Circular letter, January 25, 1866, Papers of Jonathan Baldwin Turner. Powell, Establishment of the University, p. 272.

[105] Letter, J. M. Gregory to J. B. Turner, February 4, 1871, Papers of Jonathan Baldwin Turner.

each of its Senators and Representatives.[106] The income from the land was to be used for "the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts."[107] The colleges so aided could be either preexisting ones or schools founded specifically to take advantage of the grant. Provision was made for a process of annual reporting to the Secretary of the Interior, and states then in secession were to be excluded until they were restored to the Union.[108]

Congressional opposition to Morrill's bill centered largely on the issue of states' rights and the fear of some Westerners that the real goal being pursued was the obtaining of frontier land for the benefit of the more populous East.[109] The educational aspects of the Act received scant attention, and, indeed, on this issue "the organic act was as notable for lack of reasoned objectives and spe-

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[106] Despite the inclusion of "Territories" in the full title of the Act, the text itself spoke only of the states. Territories had to wait for admission to claim their grants. Benjamin F. Andrews, The Land Grant of 1862 and the Land-Grant Colleges, U. S. Bureau of Education Bulletin No. 13 (Washington, D. C.: Government Printing Office, 1918), p. 10.

[107] Land-Grant Act (Morrill Act), Statutes at Large, XII, sec. 4, 504 (1863).

[108] Ibid., sec. 5, p. 505.

[109] Gates, "Western Opposition to the Agricultural College Act," pp. 107, 128.

cific prescriptions as for its potential significance."[110] The law did call for studies in agriculture and the mechanic arts, but classical studies and the sciences were equally mandated. Morrill himself was eventually to claim that the aided schools became identified as agricultural colleges only because of a decision made by the nameless clerk who wrote the Act's full title.[111] But that's not likely, since it was very much in Republican interests to have the grant seen as a benevolent act of the federal government on behalf of agriculture.[112] And Republican interests were well served, for the Morrill Act was seen as just that for many decades.[113] Agrarian interests came to view the land-grant colleges as uniquely theirs.

After the Act became law during the summer of 1862, the states were quick to take advantage of it. By 1867, over 4,300,000 acres of public land had been distributed.[114] In 1889 that figure had more than doubled.[115] All worries about states' rights vanished when the time came to line up for the benefits, and eventually every

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[110]Earle D. Ross, "On Writing the History of Land-Grant Colleges and Universities," Journal of Higher Education, XXIV (November, 1953), 451.

[111]George W. Atherton, The Legislative Career of Justin S. Morrill, U. S. Bureau of Education (Washington, D. C.: Government Printing Office, 1901), p. 20. (Hereinafter referred to as Legislative Career.)

[112]Eddy, Colleges, pp. 29-30.

[113]Eugene W. Hilgard, "Progress in Agriculture by Education and Government Aid," Atlantic Monthly, XLIX (April, 1882), 533.

[114]Thwing, "The National Government and Education," p. 472.

[115]Blackmar, Federal and State Aid, pp. 338-39.

state put in for its share. In the East several of the grants went to established schools, but most of the Western states founded new ones.

The form the grants took turned out to have its problems. Several states sold their land or land scrip at a time of depressed prices and realized pitifully small endowments.[116] In other areas the management of the land was shoddy or even scandalous.[117] The funds realized were never adequate to do the whole job of running a college, and, during the seventies, several land-grant schools had to rely on business support or philanthropy to survive.[118] During the eighties there was a general upturn in the support given by the states.[119] But the annual or biennial trek of the college president to the state legislature never produced the kind of results he desired.[120] Yet the schools grew.

Often the beginnings were grim. The Illinois Industrial University opened in March, 1868, with only fifty students on hand.[121] The surroundings near Champaign and Urbana were less than luxurious. Located in a building originally intended to be a boarding school, the

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[116] Eddy, Colleges, p. 51

[117] Gates, "Western Opposition to the Agricultural College Act," pp. 129-30. Ross, Democracy's College, p. 173.

[118] Eddy, Colleges, pp. 81-82.

[119] Alfred Charles True, "Agricultural Education in the United States," Yearbook of Agriculture, 1899 (Washington, D. C.: Government Printing Office, 1900), p. 172.

[120] Hilgard, "Progress in Agriculture by Education and Government Aid," p. 541.

[121] Powell, Establishment of the University, p. 298.

University "stood alone out on the bare prairie, unfenced, towering high above anything in either town, and very conspicuous for miles away."[122] It, like many of its Western counterparts, operated on a February or March to October calendar out of the simple need to save on heating costs.[123] Yet the hard beginnings often brought out the best in individuals and communities. Students generally were given "more authority for their own conduct and affairs than had been considered wise or possible heretofore."[124] And one hard-pressed President doubled as "professor or lecturer in history and social and political sciences, logic, and metaphysics, psychology and moral philosophy, rhetoric and oratory, international law, didactics and history of education, history of mining and metallurgy and political science, theory and practice of agriculture and political science, theory and practice of agriculture and political economy, and history of commerce"[125] Despite the vastness of the man's learning, it may as often as not have been wasted during the early years, for the greatest problem shared by all the land-grant schools was finding students who were adequately prepared for college-level work. Heroic efforts to raise admission standards notwithstanding, all the schools had to expend much of their resources on remedial preparatory studies. Even as late as 1913, half the land-grant colleges still

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[122] Ibid., p. 281.

[123] Eddy, Colleges, pp. 70-71.

[124] Ibid., pp. 79-80.

[125] Ibid., p. 83.

didn't require a high school diploma for entrance.[126] But the first quarter century saw the beginning made. By 1890, forty-eight schools had been aided, thirty-three of which had been created only because of the Morrill Act's stimulation of state initiative.[127]

For the most part, the land-grant schools sought to provide as broad an educational opportunity as possible.[128] Justin Morrill himself acknowledged in 1887 that this had been his purpose.[129] Most schools followed the Illinois pattern of developing programs in agriculture and engineering first, with the intention of broadening the curriculum as soon as possible.[130] But New York's college, Cornell University, opened its doors in 1868 already committed to breadth. Its first President, Andrew D. White, saw the value of classical studies which he had endured at Yale, but he also knew their shortcomings.[131] Therefore, in a move which must have delighted Charles Eliot, White insisted on offering elective studies right from the beginning.[132] By 1882 the notion had spread that the land-grant institutions had an obligation to provide a universal curriculum, theology

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[126] Ibid., pp. 83-85. For the situation at the Illinois Industrial University, see Powell, Establishment of the University, pp. 284-88.

[127] Blackmar, Federal and State Aid, p. 47.

[128] Ross, Democracy's College, p. 152.

[129] Brunner, Land-Grant Colleges, p. 2.

[130] Powell, Establishment of the University, p. 295.

[131] Andrew D. White, "How I Was Educated," Forum, II (February, 1887), 559-73.

[132] Nevins, Emergence of America, p. 271.

being the only exception.[133]

Agricultural studies, however, gave the colleges their "image." The beginnings in this area were made in the face of tremendous difficulties. Agricultural educators faced criticism from two sources. On the one hand, classicists kept up a constant barrage of negative comment designed, perhaps, to bolster their own feelings of superiority.[134] On the other, farmers and their sons did not respond to agricultural courses with the enthusiasm which had been expected. Some became suspicious when they discovered that subjects other than practical farming methods were to be required and that classical studies were to be allowed to survive.[135] Others feared that the college life, agricultural or not, would pull young men away from the farm.[136] Added to these external problems were the internal challenges of the discipline of agricultural science itself. Very little scholarly or even practical work in the area had been done in America.[137] Faculties were left to fend for themselves. In at least one case, the results were disastrous. Missouri's sole agricultural instructor happened to be a landscaper. Graduates of his program had a great appreciation for what a pleasant and well planted environment could do for their peace of mind, but

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[133]Hoss, Democracy's College, p. 153.

[134]Eddy, Colleges, p. 72.

[135]Ibid., pp. 68, 73.

[136]Frederick Rudolph, The American College and University: A History (New York: Alfred A. Knopf, 1962), pp. 258-59. (Hereinafter referred to as College and University.)

[137]True, Agricultural Education, p. 192.

but they had little else to show for their education.[138]

For the agricultural departments to prosper, two things had to happen: they had to prove that scientific methods could help the farmer earn a better profit, and they had to pick up some public support from the growing agricultural organizations.[139] In the meantime, they limped along. After twelve years, Illinois' department had only twenty-three students. In 1880, Wisconsin could still boast only one agricultural graduate.[140]

The hopeful signs were few, but there were some. The low number of students gave agriculture instructors ample time to engage in scientific research; the presence of college-owned and maintained farms gave them the laboratory material; the lack of adequate texts gave them the motivation. Thus the body of available scientific and practical agricultural knowledge expanded rapidly. And in at least one field the land-grant schools managed to achieve an early and enduring monopoly. Veterinary medicine was just beginning to be taught in a few private institutions at mid-century. But Cornell and Illinois established veterinary departments as soon as they opened, and the two schools soon came to be the sources of information and technique looked to by stockmen throughout the country.[141]

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[138] Rudolph, College and University, p. 259.

[139] Eddy, Colleges, p. 73. Hilgard, "Progress in Agriculture by Education and Government Aid," p. 651.

[140] Nevins, Emergence of America, p. 275.

[141] Eddy, Colleges, pp. 91-92. Ross, Democracy's College, p. 154.

In the mechanic arts--engineering--the early period was much easier. To the surprise of almost everyone, the technical courses drew more students than agriculture from the very start.[142] And "the mechanic arts kept its lead over agriculture, not just in numbers but in more extended development, better facilities, in increased recognition, and in standardization."[143] Industry knew the value of well trained engineers and paid them good wages. This obviously made the college programs attractive to ambitious young men. Even more importantly, it made the schools themselves the objects of many a wealthy industrialist's philantropy. Although the Second Morrill Act retained the mandate to offer the mechanic arts, engineering's need for support played virtually no role in the developments which brought the law into being. College presidents had other sources to tap for that enterprise. "In engineering the Morrill Act (of 1862) did little more than create a score of technological colleges where a half a dozen had existed before."[144] The need would presumably have been met in other ways had the federal grants to the states never been made.

Three other features which marked the land-grant schools set them apart from most other contemporary institutions of higher education. The first was the practice of requiring manual labor from the students. The pattern varied from state to state, but the requirement was almost universal in the newly founded schools of the

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[142] Ross, Democracy's College, p. 155.

[143] Eddy, Colleges, pp. 87-90.

[144] Nevins, Emergence of America, p. 276.

sixties and early seventies.[145] Understandably, the students were not enthused, and even the faculties eventually came to view it as an unnecessary burden. The instituting of modest wages served only to win the allegiance of students' parents, and eventually the practice died out.[146] Often taking its place was a second feature--military training.[147] Required by the Morrill Act though it was, instruction in "military tactics" was very late developing. Administrators recognized its potential unpopularity and were hesitant to make an issue of it.[148] As late as 1888, there were still ten schools which had no program.[149] And it wasn't until the 1890's that the U.S. Army finally developed a program to make use of the trained graduates.[150] A third notable feature of the land-grant schools was their general commitment to coeducation. This was, of course, not unique to them, but they made more rapid progress in the education of women than any

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[145]Earle D. Ross, "The Manual Labor Experiment in the Land Grant College," Mississippi Valley Historical Review, XXI (March, 1935), 515. (Hereinafter referred to as "Manual Labor.") Annie Tolman Smith, "The Education of Agriculturists," Education, II (November, 1881), 169.

[146]Hilgard, "Progress in Agriculture by Education and Government Aid," p. 537.

[147]Ross, "Manual Labor," pp. 527-28.

[148]Convention of Friends of Agricultural Education in 1871, An Early View of the Land-Grant Colleges, ed. by Richard A. Hatch (Urbana: University of Illinois Press, 1967), p. 69. (Hereinafter referred to as Convention, Early View.)

[149]U.S., Department of the Interior, Report of the Commissioner of Education for the Year 1887-88 (Washington, D. C.: Government Printing Office, 1889), p. 721.

[150]Eddy, Colleges, pp. 93-94.

other style of institution.[151]

Common problems and common goals led the land-grant colleges eventually into close association with one another. At first the cooperation was informal.[152] But soon a call went out for a "convention of Presidents of Agricultural Colleges, Professors of Agriculture, or other persons in the United States or British Provinces who are engaged or interested in promoting the art or science of Agriculture by experiments in the field or laboratory, for the purpose of organizing, consulting, and cooperating in the great work of advancing the cause of Agricultural knowledge and education, especially by experimentation with similar crops under similar conditions, at all the Agricultural Colleges."[153] The resulting conference gathered at the Prairie Farmer Building in Chicago on August 24 and 25, 1871, following the annual session of the Society for the Advancement of Science. Twenty-nine persons were present, including at least six journalists.[154] Following the election of Dr. J. M. Gregory of the Illinois Industrial University as President, the "Convention resolved itself into a sort of experience meeting."[155] True to its call, most of the convention's discussion centered on the need for coordinated scientific experimentation. But most of the other pressing issues

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[151] Bevier and Usher, The Home Economics Movement, p. 41 Eddy, Colleges, p. 90. Nevins, Emergence of America, pp. 273-74. Ross, Democracy's College, p. 157.

[152] Ross, Democracy's College, p. 167.

[153] Convention, Early View, pp. 1-2.

[154] Ibid., p. 3.

[155] Ibid., p. 5.

surfaced in one way or another: manual labor, coeducation, preparatory education, military training, and so on.[156] The question of creating a permanent organization came up the first afternoon, but, at the end, no decision had been made, and the matter was left in the hands of a committee.[157]

Fortunately, someone else saw to it that another meeting was called. Late in 1871 Frederick Watts, former chairman of the trustees for the land-grant school in Pennsylvania, was appointed U.S. Commissioner of Agriculture. He called together representatives of the colleges for a meeting in February, 1872. Watts himself suggested that the group might want to consider, among other things, the possibility of going to Congress asking for additional land-grants on behalf of the colleges. President Ulysses S. Grant attended for a short time, but he made no comment on that or any other issue. More importantly, Justin Morrill--a Senator now since 1866--was on hand. He liked the idea of more grants, and it was he who introduced the resolution which put the meeting on record as having similar sentiments. The news that the House of Representatives had recently passed a bill providing land-grants to the states for the benefit of the common schools gave everyone high hopes that the colleges, too, could meet with favor. The meeting failed to make satisfactory arrangements for meeting again, but in the appointment of two permanent committees--one to seek federal aid for experiment stations and another to follow

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[156] Ibid., pp. 50-52, 56-57.

[157] Ibid., pp. 8, 88-107.

up on Morrill's resolution--an important step had been taken.[158]

The committee on land-grants apparently did its work rapidly, for Senator Morrill introduced a bill in the Senate on February 23, 1872. In his introductory remarks he acknowledged that it was given to him "by a convention of a body of men of high character, and hardly ever surpassed in this country for their intelligence. While I have not examined the bill in detail I cordially approve of its general scope and purpose."[159] The bill provided grants of a million acres of public land to each state for support of qualifying colleges. To avoid the problems of land management raised by the 1862 Act, this bill provided that the government would retain title to the land with only the proceeds being turned over to the states. Support was less than adequate, and the bill was defeated in early March.[160]

Still not one to give up easily, Morrill presented another bill on May 14. This time the grant called for was 500,000 acres per state. When the bill was finally considered in December, Morrill agrued for it on the basis of the colleges' good beginnings, the need for practical education, and the desirability of military training. For the first time, he began to refer to the schools as "national" rather than "agricultural."

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[158] Ross, Democracy's College, pp. 168-69, 176. True, Agricultural Education, pp. 194-95.

[159] True, Agricultural Education, p. 196.

[160] Ibid., p. 196. Isaac Leon Kandel, Federal Aid for Vocational Education (New York: Carnegie Foundation for the Advancement of Teaching, 1917), p. 20.

Senator Sherman of Ohio led the opposition, stating that equal grants were unfair to populous areas, and that scarce public lands should not be used to enroach further upon the educational prerogatives of the states. More important, however, were the debates which went on off the floor. Presidents of private colleges, led by McCosh and Eliot, lobbied strongly against Morrill's bill in "one of the shabbiest episodes in American Academic history."[161] Shabby or not, the opposition carried the day. Morrill's proposal passed in the Senate on January 14, 1873, but the substitute version passed by the House was killed in the Senate by a prolonged debate beginning in February.[162] Before the year was over, the Senator from Vermont made one more attempt. On December 13 he introduced a third bill which would have given grants not only to the colleges but also to the common schools. This one died in committee, never even having been printed.[163]

The defeat was so thorough that, when college representatives got together again, they turned their attention to other things.[164] Presidents of the land-grant schools gathered in Columbus, Ohio, in 1877, but they dealt mostly with internal administrative problems.

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[161] Rudolph, College and University, p. 254

[162] Kandel, Federal Aid for Vocational Education, pp. 20-23. Rudolph, College and University, pp. 254-55. True, Agricultural Education, pp. 196-97.

[163] Kandel, Federal Aid for Vocational Education, p. 27. True, Agricultural Education, pp. 197-98.

[164] The meetings of the 1870's and 1880's are helpfully listed at the conclusion of Convention, Early View, pp. 146-67.

The next meeting took place in Washington, D. C., in January, 1882. Called by the U.S. Commissioner of Agriculture, it was but one of a series of meetings between the Department and various agrarian constituencies. They were called primarily to enhance the work of the Department. But the college representatives used the opportunity to renew their collective effort aimed at getting federal funding for agricultural experiment stations. This remained the focus of similarly constituted meetings held in 1883 and 1885, although the latter one took a significant additional step by appointing a group to enable the establishment of a permanent organization.

When college representatives gathered again in October, 1887, there was a constitution ready, and the Association of American Agricultural Colleges and Experiment Stations came into being.[165] That meeting and the two which followed in 1888 and 1889 continued to focus on experiment stations. Indeed, the primary accomplishment of the early Association was getting federal aid for the stations passed by Congress in 1887 and seeing to it that the resulting funds were wisely used.[166]

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[165] Ross, Democracy's College, pp. 169-70. Eddy, Colleges, pp. 108-109.

[166] U.S., Office of Experiment Stations, Proceedings of the Second Annual Convention of the Association of American Agricultural Colleges and Experiment Stations, Miscellaneous Bulletin No. 1 (Washington, D. C.: Government Printing Office, 1889), pp. 23-25. U. S., Office of Experiment Stations, Proceedings of the Third Annual Convention of the Association of American Agricultural Colleges and Experiment Stations, Miscellaneous Bulletin No. 2 (Washington, D. C.: Government Printing Office, 1890), passim. (Hereinafter referred to as Proceedings of the Third Convention.)

Experiment stations were a European development which began to be imitated in America in 1875.[167] By 1887 there were twenty-eight such centers of agricultural research supported by the states.[168] In that year the Hatch Act brought them federal aid, and, looking ahead to the Second Morrill Act, three important things were accomplished. First, a precedent was set for equal grants of funds, not land. The law provided that each state with a qualifying experiment station at its land-grant school would receive annually $15,000 out of the Treasury.[169] Second, the federal government was brought into a more than paternalistic relationship with the schools.

> Twenty-five years after the passage of the act establishing the colleges, the Federal government had finally recognized the value of their work. With the Hatch Act, the federal government entered into a systematic and cooperative relationship with the colleges, though the institutions were to remain distinctly state organized and sponsored.[170]

And, finally, the colleges were at last equipped to deliver what farmers really wanted. The experiment stations were the way that the schools could help with the crucial questions of dealing with soil depletion, choosing the most profitable stock breeds, and fighting the ravages of diseases and insects.[171]

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[167] Eddy, Colleges, p. 77.

[168] Ibid., p. 95.

[169] Agricultural Experiment Stations Act (Hatch Act), Statutes at Large, XXIV, sec. 5, 441 (1887).

[170] Eddy, Colleges, p. 97.

[171] Ibid., pp. 94-95.

Another development at the land-grant schools had a similar effect of increasing farmer approval. From the beginning the colleges had made attempts to be helpful to practicing farmers. Extension work, short courses, and farmers' institutes had all been tried. The earliest efforts had been more inspirational than practical, and farmers had stayed away with regularity. But, during the eighties, scientific content of the extension courses was increased. This, along with the coordination provided by the new U.S. Office of Experiment Stations set up in 18 , began to make extension an increasingly valued service. By 1890, twenty-six colleges had off-campus programs for farmers, and the movement was growing.[172]

Meanwhile, back in the Senate, Justin Morrill had been doggedly pursuing direct aid for the colleges. A development took place in 1874 which seemed at first as though it would help his cause. Representative James Monroe, a faculty member at Oberlin and a zealot for privately funded higher education, succeeded in having the House pass a resolution calling for an investigation of the land-grant colleges to see if they were in compliance with the 1862 Act. As it turned out, the resulting inquiry aided the colleges in their process of learning from the experiences of one another, and Monroe himself became a convert. His final report, delivered to the House on January 13,

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[172] Ibid., pp. 104-108. Rudolph, College and University, p. 262. Alfred Charles True, A History of Agricultural Extension Work in the United States: 1785-1923, U. S. Department of Agriculture Miscellaneous Bulletin No. 15 (Washington, D. C.: Government Printing Office, 1928), p. 25.

1875, was an enthusiastic endorsement for the schools.[173]

Morrill lost no time. Just twelve days later he had a new bill before the Senate. In an attempt to please everyone, he not only included the common schools but also provided that half the funds for the colleges would be distributed on the basis of population, the other half going to the states equally as before. It was all to no avail, however, and the bill was tabled indefinitely. Such were to be the results for the next fifteen years. Morrill sponsored a bill in 1876 which reduced the amount of the grants. It was spoken to only by one other Senator, and it died for lack of interest. An 1880 proposal added proceeds from the Patent Office to the sources of income for the program, but Senate passage was only a prelude to House defeat. Identical bills of 1881 and 1882 met nearly identical fates. In 1884 Morrill's perennial plan dropped patent proceeds and replaced them with receipts realized from the return of railroad lands. The bill was lost that year and again in 1886 and 1888.[174] Certainly the Senator's patience and endurance were undergoing severe trial.

What was most significantly missing during these years was a forceful lobbying effort. The land-grant schools had begun to fill that role, but, after the first setback, they had invested their energies elsewhere. The other potential group to fill the gap was the agricultural organizations, but they, too, for reasons of their own, failed to provide what was needed.

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[173] Smith, "The Education of Agriculturists," p. 167. True, Agricultural Education, p. 198. Eddy, Colleges, p. 74.

[174] True, Agricultural Education, pp. 198-99. Kandel, Federal Aid for Vocational Education, pp. 27-29.

The National Grange of the Patrons of Husbandry, founded in 1867 by William Saunders, a refugee from the Department of Agriculture, offered the best chance of becoming a lobby for agricultural colleges. Its first circular numbered among the Grange's purposes "to encourage and advance education in all branches of agriculture."[175] This was reaffirmed and amplified in a statement written by Saunders in 1870.[176] And the first national meeting, held in 1873, specifically dealt with the land-grant colleges by encouraging them to upgrade their agricultural offerings.[177] But the depression of 1873 rapidly turned the Grange to more immediate economic issues, particularly the long struggle to achieve fair and equitable rates from the railroads.[178]

Emphasis on economic issues was even more pronounced among the various farmers' Alliances which grew up in the eighties. Opposition to low crop prices, high tariffs, and railroad tax exemptions, and action in favor of free coinage of silver, paper money, and regulation of banks all received more attention than education. What's more, Alliances tended to exert most of their influence at the state rather than the federal level, at least prior to 1887.[179] By 1889,

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[175] True, Agricultural Education, p. 122.

[176] Ibid.

[177] Ibid., p. 124.

[178] Ibid., p. 123. Shannon, The Farmer's Last Frontier, pp. 310-11, 329-32.

[179] Shannon, The Farmer's Last Frontier, pp. 311-18. John D. Hicks, The Populist Revolt: A History of the Farmers' Alliance and the People's Party (n. p.: University of Nebraska Press, 1961), pp. 128-52. (Hereinafter referred to as The Populist Revolt.)

agricultural organizations were certainly a force to be reckoned with by national politicians, even though they had failed that year to strengthen their voice by merger.[180] But the agrarian groups' agenda still didn't match with Morrill's.

The growth of a visible agricultural bloc did, however, have one beneficial side effect for Morrill's cause. Cooperation between the Department of Agriculture and the land-grant colleges had been slow in developing. In 1882 a critic was complaining that, "to speak plainly, the national Department of Agriculture seemed to act in a measure, as though the colleges and experiment stations were not in existence."[181] The meetings between the Department and the schools begun that year made a start in resolving the problem, and, as has been seen, the passage of the Hatch Act brought the Department and the colleges into an even closer relationship. Department personnel became strong advocates for the schools.

At the same time farmers were beginning to demand that the Department be raised to Cabinet status.[182] The reality of the farm groups' vote-delivering potential made that proposal attractive to both parties, and, in the waning days of the Cleveland administration, Agriculture was removed from the Interior to become independent. Whatever that may or may not have done for farmers, it did elevate

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[180] W. A. Peffer, "The Farmers' Defensive Movement," Forum, VIII (December, 1889), 464-73. Shannon, The Farmer's Last Frontier, pp. 317-18.

[181] Hilgard, "Progress in Agriculture by Education and Government Aid," p. 660.

[182] Editorial, American Agriculturist, XLVIII (February, 1890), 86.

a land-grant advocate to membership in the President's Cabinet.[183]

The specific content of what Morrill was trying to get done remained a peripheral issue for the farm groups. They were too interested in finding immediate solutions to agrarian problems to see education as a very high priority. There were exceptions, of course. In Michigan, the Grange and Michigan State University enjoyed a fruitful relationship dating back to 1878.[184] But nationally the groups' positions tended toward silence or neutrality. When the Farmers' Alliance Convention of 1887 took action in favor of promoting agricultural education, it was as much a rebuke to the colleges as it was a support for their goals.[185] The National Grange always tempered what support it gave with criticism.[186] And, when the major Alliances formulated their programs in 1889 in preparation for the next year's elections, agricultural education at the college level received not a word of attention.[187] To be sure, the experiment stations and the extension programs were beginning to win farmers' trust. But, as 1890 began, their organizations still looked at the colleges with many of the old suspicions. If the groups were to be converted to Morrill's

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[183]Alfred Charles True, A History of Agricultural Experimentation and Research in the United States: 1607-1925, U. S. Department of Agriculture Miscellaneous Publication No 251 (Washington, D. C.: Government Printing Office, 1937), p. 177.

[184]Smith, "The Education of Agriculturists," p. 170.

[185]Curti, The Social Ideas of American Educators, pp. 213-14.

[186]True, Agricultural Education, p. 125.

[187]Hicks, The Populist Revolt, pp. 427-30.

side, they would, in effect, have to be convinced that the proposed aid to the colleges would be given in such a way as to make the schools more responsive to agrarian interests.

In 1862 land policy, Republican self-interest, and agrarian desires merged to produce the Land-Grant Act. In a way more apparent than real, the same forces met again in 1890, and success at last crowned Senator Morrill's eighteen-year quest.

III. PASSAGE OF THE ACT

The First Session of the Fifty-First Congress saw Justin Morrill's long wait come to an end. On March 25, 1890, he reintroduced his now familiar scheme. Senate Bill 3256 once again provided that proceeds from sale of public lands and repayment of railroad loans would be used to establish an education fund. Payments from the fund would go to the states for "public education and the more complete endowment and support of colleges for the advancement of scientific and industrial education."[188] For the colleges, each state would get an equal share, up to $25,000 annually, depending on the revenue realized from the authorized sources in any given year. The Bill was referred to the Committee on Education and Labor.

Many of the factors which would influence the fate of Morrill's proposal remained the same as in earlier years. First, the issue had still not become one of widely recognized political importance. Neither the Republicans nor the Democrats had had anything to say on the question in their 1888 platforms.[189] A year later even Senator Morrill, writing about Republican policy, placed education fourteenth on a list of fifteen concerns, and then it was only a reference that

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[188] U. S., Congress, Senate, 51st Cong., 1st sess., March 25, 1890, Congressional Record, XXI, 2595.

[189] Democratic and Republican Platforms of 1888 reprinted in Schlesinger and Israel, eds., Presidential Elections, pp. 1653-60.

the Party would "favor education, State and national."[190] Second, the vocabulary used was still fairly neutral as far as educational theory was concerned. It did lean toward practical education, though this was primarily a matter of emphasis, as in 1862. By 1890 Morrill was so convinced that "his" colleges needed to offer a broad education that it was unlikely he would have proposed any kind of funding scheme which would have threatened that.[191] Third, Morrill's bill was consistent with current land policy. It even offered Congress a way to continue sale of the dwindling public domain in the name of a noble purpose. Fourth, it was a valid expression of the growing sense of nationalism. Senator Morrill himself had claimed this in an 1887 speech when he pointed with pride to the land-grant colleges as a major weapon in the competition with foreign nations for domination of world trade, and he was to repeat this same argument on the floor of the Senate in 1890.[192] Fifth, the supervisory roles given to the Departments of Agriculture and the Interior were in tune with the growing power and capability of the national administration.[193] Indeed, one twentieth century observor saw the final version of the Act primarily as a step in the process of concentrating governmental

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[190]Justin S. Morrill, "Republican Party Prospects," Forum, VII (July, 1889), 488-502.

[191]Kandell, Federal Aid for Vocational Education, p. 82.

[192]Brunner, Land-Grant Colleges, p. 49. U. S., Congress, Senate, 51st Cong., 1st sess., June 14, 1890, Congressional Record XXXI, 6084.

[193]Blackmar, Federal and State Aid, p. 4. Ross, Democracy's College, p. 179.

power at the national level, a process which began its modern stage with the Interstate Commerce Act of 1887.[194] And, finally, the bill was intended to aid institutions whose needs were still great. Land-grant colleges were very reluctant to raise student fees for fear of losing their democratic character and function. Yet the increasing demand for scientific excellence required purchase of ever more expensive equipment.[195]

But two critical things had changed from previous years. For one, the Republican Party, solidly in control of the national government, had new reason to look with interest on any proposal which might actually or apparently aid agriculture. The Alliances had been preparing their strategy for the fall elections for nearly a year. A third party movement was a distinct possibility, and politicians with any rural constituency at all had reason to strengthen their pro-agriculture voting records in preparation for any eventuality.[196] The other change was the new potential for Grange support or at least acquiescence. The rapid development of the experiment stations following the passage of the Hatch Act had begun to ease farmers' doubts about land-grant colleges.[197] These two changes meant that, if someone could gain a Grange endorsement for Morrill's bill, it would have to be taken seriously by Congress, and chances of success would be much enhanced.

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[194]Reisner, Nationalism and Education, pp. 472-76, 478-79.

[195]Ross, Democracy's College, p. 172.

[196]Hays, Response to Industrialism, p. 151.

[197]Rudolph, College and University, p. 261.

Senator Morrill soon made two decisions which had just that effect, whether he intended it to be so or not. The first came out of political necessity. The decision was made to separate the cause of the colleges from the needs of the common schools, long though they had been joined. Senator Henry W. Blair of New Hampshire had forced the issue by sponsoring a bill which would have made federal grants to the states on behalf of the common schools only. When Blair's measure went down to defeat, it became clear to his colleague from Vermont that Senate Bill 3256 now was doomed by its dual focus.[198]

At about the same time, Morrill made a second crucial decision. He corresponded with the leadership of the Association of American Agricultural Colleges and Experiment Stations and asked for their help. It's clear that the Senator got immediate and enthusiastic aid. The Association's Executive Committee gathered in Washington in April and got right to work.[199] But it's just as clear that the initiative was Morrill's. George Atherton, President of Pennsylvania State College and the Association, had addressed an annual session of the Association the previous November. His remarks dealt with the role of the federal government in land-grant education and the place of Senator Morrill in the movement's growth. But Atherton had nowhere made any plea for—or eve reference to—more federal aid.[200]

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[198]Kandel, Federal Aid for Vocational Education, p. 30.

[199]U.S., Office of Experiment Stations, Proceedings of the Fourth Annual Convention of the Association of American Agricultural College and Experiment Stations, Miscellaneous Bulletin No. 3 (Washington, D. C.: Government Printing Office, 1891), pp. 19-20. (Hereinafter referred to as Proceedings of the Fourth Convention.)

[200]U. S., Office of Experiment Stations, Proceedings of the Third Convention, pp. 65-78.

The issue was simply absent from the group's deliberations. Until Morrill brought it to them, the educators had little or no knowledge of what was being proposed.[201] The Association had a large role to play in the passage of the Second Morrill Act, but it was the role of salesman, not originator.

The first work of the Association's Executive Committee in April was to help Senator Morrill rewrite Senate Bill 3256.[202] All provisions for the common schools were deleted, and, in its new form, the bill was reintroduced on April 30, 1890. Numbered now as Senate Bill 3714, it, too, went to the Committee on Education and Labor.[203] At the same time, the educators were beginning the second, more important task--the putting to use of the lobbying tactics they had learned in 1887 while working for the passage of the Hatch Act.

On April 27 the Senate Education and Labor Committee heard from the group, even before the new bill had been presented. Spokesmen were President Henry Alvord of Maryland College, along with James Smart of Indiana, Morrill Gates of New Jersey, James Patterson of Kentucky, and Henry H. Goodell of Massachusetts. They argued convincingly for the dual needs of the colleges: better scientific equipment and facilities for enlarged enrollments. Senators were assured of the wisdom of such an investment, for studies showed that land-grant college graduates were getting high-paying jobs which made them more

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[201] True, Agricultural Education, p. 211.

[202] Ibid., p. 199.

[203] U.S., Congress, Senate, 51st Cong., 1st sess., April 30, 1890, Congressional Record, XXI, 4003.

productive taxpayers.[204] When the Committee made its favorable report--now referring to the second bill--on June 14, the testimony of the educators was introduced into the record as grounds for the positive action.[205] Justin Morrill was later to acknowledge the importance of what the Association had done.[206] The comment of a member of the House of Representatives was, however, perhaps the strongest testimony given to the tenacity of the Association's spokesmen.

> They have haunted the halls of this Capitol with their presences. They have buzzed in your ears, sir, and in yours, and in the ears of every member of this House. It has been an organized, strong, combined lobby for the benefit of the agricultural colleges of the country.[207]

None of his audience raised any objection to that description.

The role of the Grange was probably less intense but equally significant. To be sure, the world of organized agriculture had not been a big promoter of Morrill's bill as one of their causes. As one farm magazine put it, "it was considerable of a surprise to those interested in such matters when Senator Morrill introduced into the Senate a bill appropriating more money for American agricultural colleges."[208] And no agricultural journal even reported on it until it had already passed the Senate. But a way was found to give Congress

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[204] New York Times, April 27, 1890, p. 16.

[205] U.S., Congress, Senate, 51st Cong., 1st sess., June 14, 1890, Congressional Record, XXI, 6085-87.

[206] U. S., Office of Experiment Stations, Proceedings of the Fourth Convention, p. 19.

[207] U. S., Congress, House, 51st Cong., 1st sess., August 19, 1890, Congressional Record, XXI, 8836.

[208] Rural New Yorker, XLIX (July 5, 1890), 436.

the impression that the Grange really wanted the bill.

It is not certain who took the initiative. Some evidence indicates that Colnel J. H. Brigham, Master of the Grange and former staff-member at the Ohio Experiment Station, made the first move.[209] But other clues seem to indicate that it was the Association Executive Committee.[210] At any rate, Brigham and the Committee worked out an arrangement. If the Association would support limiting use of the grant to "instruction in agriculture and the mechanic arts and the facilities for such instruction,"[211] the Grange would support the bill. The Patrons of Husbandry testified in favor of both the amendment and the bill before the Committee considering them.[212] And the two desired effects were realized. Farmers came to believe the bill was promoted on their behalf.[213] And the Senators came to believe the bill was politically attractive. The Committee on Education and Labor reported Senate Bill 3714 with the limiting amendment included.[214]

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[209] W. I. Chamberlain, letter to the editor, Country Gentleman, LV (October, 1890), 735-36.

[210] U. S., Congress, House, 51st Cong., 1st sess., August 19, 1890, Congressional Record, XXI, 8834.

[211] Ibid., Senate, June 14, 1890, p. 6085.

[212] Kandel, Federal Aid for Vocational Education, p. 37.

[213] A typical article stated that "the bill is carefully worded so as to require the funds to be used for instructioniin agriculture and the mechanic arts." Editorial, Country Gentleman, LV (July 3, 1890), 530.

[214] U. S., Congress, Senate, 51st Cong., 1st sess., June 14, 1890, Congressional Record, XXI, 6085.

But it was not to be carried in just that form. Senator Morill himself, motivated perhaps by his concern for the breadth of land-grant education, proposed an additional phrase: "including the various branches of mathematical, physical, natural, and economic science, with specific reference to their applications in the industries of life, and in a thorough training in the English language."[215] As it turned out, the Senate rejected both the short and long versions of the amendment. At the insistence of the Grange, however, the amendment was restored by the House. Strangely enough the restored version was essentially that which had been suggested by Morrill.[216] When the amended bill came back to the Senate, the change was approved without discussion.[217]

As he stood on the threshold of legislative victory, Justin Smith Morrill was already a man of eighty, "tall, spare, stooping,... the center of deference and regard."[218] He had set some sort of record by working for fourteen years to get a bill passed to erect a building for the Library of Congress.[219] He was about to surpass his own mark. The question can be raised of how significant Morrill's role was in the passage of the Second Land-Grant Act. Historians have often minimized his importance on two grounds. First, it is argued

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[215] Ibid., p. 6086.

[216] Ibid., House, August 19, 1890, p. 8839.

[217] Ibid., Senate, August 20, 1890, p. 8874.

[218] Parker, Life of Morrill, p. vii.

[219] True, Agricultural Education, p. 97.

that "the act of 1890 was deliberately and carefully planned, directed and passed...by the leaders of the association."[220] Like the James argument related to the 1862 Act, this view portrays Morrill as little more than a legislative workhorse acting purely on behalf of others. Second, it is held that the tactic of joining the land-grant cause with the common schools was a mistake which long delayed the passage of a second round of land-grant assistance to the colleges.[221]

But these theses appear to be highly interpretive and inadequately documented. It is as if the historians had watched the first and final scenes of the drama only, and had then gone away believing they had comprehended the whole. But the intervening years were not without significance. Including them in the picture, a contrary hypothesis can be argued, even if not proved. It is as consistent with the evidence as the prevailing view. It would go something like this. Morrill, indeed, did not originate the idea of a second land-grant, but, once it had come out of the meetings of 1871 and 1872, he took over its prosecution. Realizing the need for a strong lobby, he turned to the land-grant college administrators. Unfortunately, their zeal was not matched by experience, and they were badly defeated by a highly motivated private college counter-lobby in the debates of 1872-74. Thus beaten, they turned to other things. Left alone, Morrill continued to bring up the idea, knowing full well that it could not meet

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[220] Ross, "The 'Father' of the Land-Grant College," p. 185. See also Kandel, Federal Aid for Vocational Education, p. 19.

[221] True, Agricultural Education, p. 199. Ross, Democracy's College, p. 177.

with success until a new lobbying force was created. In the meantime, he happily kept the issue of the colleges joined with that of the common schools. By this simple device, the colleges could be kept before Congress while the critics of federal aid to education could, for the most part, find a different target for their attacks.[222] In this way, Morrill awaited the time for adequate support to appear. That time came in 1890 when the Association had become firmly established. Quickly putting aside the common schools, Morrill enlisted the aid of a surprised Association and moved ahead. By this view, it was no coincidence that private educators did not reappear in 1890 to voice their protest. The long years had numbed the opposition to the point where, by the time it knew the 1890 attempt was likely to succeed where the earlier one had failed, it was too late.

Justin Smith Morrill was proud of the 1890 Act which bore his name.[223] On balance, it appears that his pride was justified. His role had been to perform a job of quiet, patient, and competent legislative management which no one else had been willing or able to undertake, and he had done it well.

The debate in the Senate went on, with interruptions, for ten days. All the old arguments pro and con were repeated, but the

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[222]Examples of the dispute are John Gilmary Shea, "Federal Schemes to Aid Common Schools in the Southern States," American Catholic Quarterly Review, XIII (April, 1888), 345-59; and John Eaton, "The Nation, the Only Patron of Education Equal to the Present Emergency," Education, IV (March, 1884), 333-45.

[223]Allan Nevins, The State Universities and Democracy (Urbana: University of Illinois Press, 1962), p. 68.

only substantive addition made during the process was the provision enforcing open admission policies for all races but allowing separate institutions. Senate Bill 3714 was passed by an unrecorded margin on June 23.[224] The House action was handled more quickly, if only because the rule limiting debate to two hours had recently been adopted. After reinserting the "Grange amendment," the House took affirmative action on August 19 by a vote of 135 to 39.[225] The next day the Senate accepted the change and sent the bill on to the President.[226] By the end of the month, President Benjamin Harrison had completed the process of writing into the law the Second Morrill Act of 1890.[227].

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[224]U. S., Congress, Senate, 51st Cong., 1st sess., June 23, 1890, Congressional Record, XXI, 6372.

[225]Ibid., House, August 19, 1890, p. 8839.

[226]Ibid., Senate, August 20, 1890, p. 8874.

[227]Ibid., August 30, 1890, p. 9388.

IV. SIGNIFICANCE OF THE ACT

Political realities and the agricultural situation had combined to give Morrill and the Association the opportunity to get a college-aid bill passed. Oddly enough, politics and agriculture were two areas on which the Second Morrill Act had little effect.

If the Republican leadership had finally given support to Morrill's bill in hopes of winning agrarian support in the 1890 elections, their hopes were soon dashed. Their more serious attempt at achieving the same political goal had been the Sherman Silver Act, also passed during the summer. Engineered as a concession to hold Western Republicans in line for a renewal of protective tariffs, it was not enoughtof a concession to please most free-silver advocates. It was certainly not enough to win the allegiance of the agrarian Alliances. Those groups, soon to merge with others into the Populist Party, rejected the Sherman Act and worked against a number of Republicans during the Congressional campaign.[228] Their tactics were effective, for the Republican majority in the House was utterly destroyed, and only a thin margin of eight was maintained in the Senate.[229] Agricultural depression soon added fuel to the agrarian cause, and the way had been prepared for the 1892 emergence of the Populists and for

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[228] Shannon, The Farmer's Last Frontier, pp. 318-19.

[229] New York Times, November 9, 1890. H. Wayne Morgan, "Election of 1892," in Schlesinger and Israel, eds., Presidential Elections, p. 1721.

the Republicans losing the Presidency to Grover Cleveland, the very man they had defeated in 1888.[230]

Justin Morrill's own long political career went on untouched, one way or the other. On October 14, 1890, the Vermont legislature reelected him to his fifth term in the U. S. Senate, with only token opposition having been offered.[231]

For agriculturists, the Second Morrill Act failed to accomplish the one minimal hope they had for it: forcing the land-grant schools to become more agricultural in character. The early skeptical reaction of some farm journals proved to be most appropriate.[232] When the "Grange amendment" was lengthened to include several academic disciplines, "in effect, it accomplished what the Grange had attempted to prevent."[233] The land-grant colleges were free to continue broadening their curricular offerings, and that is precisely what they all did. The Second Morrill Act did benefit farmers in the long run by strengthening institutions which promoted, among other things, scientific agriculture. But, in the short run, the Act was much like other nineteenth century agrarian legislation: the value for farmers was more apparent than real.[234]

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[230] Hays, Response to Industrialism, p. 28. Shannon, The Farmer's Last Frontier, p. 320.

[231] New York Times, October 15, 1890, p. 1.

[232] "A Brilliant Opportunity," American Agriculturist, XLIX (October, 1890), 530.

[233] Eddy, Colleges, p. 103.

[234] Hays, Response to Industrialism, p. 32.

Perhaps the lack of immediate and visible political effect accounted for the quickness with which the Act fell into oblivion. Its passage received only scant attention from the press.[235] Senator Morrill himself left it out of his campaign article written for the 1892 election.[236] Educational histories of the early twentieth century avoided the topic altogether.[237] Even Morrill's biographer, writing in 1924, made no reference to either the Act or the steps which led to its passage.[238] But a longer view showed the effort to have been important.

The primary significance of the Second Morrill Act lay in the three things it accomplished for the land-grant colleges themselves. First, it was the turning point from their period of struggle to their period of permanence and greatest growth.[239] By 1896, the grants made by the federal government had helped the colleges absorb an enrollment 50 per cent larger than that of 1890.[240] In turn, the states were once again stimulated to increase vastly their level of

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[235] New York Times, June 24, 1890, p. 1; September 29, 1890, p. 2.

[236] Justin S. Morrill, "Erratic Platforms of the Democracy," North American Review, CLV (September, 1892), 268-69.

[237] For example, the Act is mentioned in neither Charles Franklin Thwing, History of Education, nor A History of Higher Education in America (New York: D. Appleton and Company, 1906).

[238] Parker, Life of Morrill, passim.

[239] Ross, Democracy's College, p. 180. Eddy, Colleges, pp. 103-104. Atherton, Legislative Career, p. 28. Hofstadter and Smith, eds., American Higher Education, p. 568.

[240] Eddy, Colleges, p. 86.

budgetary support.[241] Second, the Act further solidified the relationship between the Department of Agriculture and the schools, and here agrarians derived at least some gain. More rapid expansion and dissemination of scientific agricultural knowledge was the result of the strengthened relation.[242] And, third, 1890 marked a half-way point in the transition from land-grant support to direct financial appropriations.

The transition in funding was completed by a series of laws written during the twentieth century. During the debates on the 1890 Act, Senator Preston Plumb of Kansas had expressed the fear that Morrill's bill would lead to ever greater amounts of federal money going to the land-grant schools.[243] His prediction was accurate. On March 17, 1898, the aged Senator from Vermont introduced legislation which would have permitted the payment of the grants called for by the 1890 Act out of general revenues if land sales did not provide adequate resources, but his death intervened on December 27 before the legislation could be passed.[244] Others took up the cause, however, and just such

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[241]Ibid., p. 103.

[242]Ross, Democracy's College, p. 180. Hays, Response to Industrialism, p. 19.

[243]U. S., Congress, Senate, 51st Cong., 1st sess., June 21, 1890, Congressional Record, XXI, 6335.

[244]Atherton, Legislative Career, p. 28.

a bill was signed into law in 1900.[245] Next came an amendment to the Department of Agriculture appropriation bill of 1907 which provided that the annual grants called for in 1890 would be raised by $5,000 annual increments to a ceiling of $50,000 per year.[246] Then came the final step, the Bankhead-Jones Act of 1935. Originally calling for annual appropriations of nearly $2,500,000 for the land-grant colleges, later amendments in 1952 and 1960 raised the figure to over $11,000,000.[247] By the land-grant centennial year of 1962, the schools were educating a fifth of the university students in the country and were producing nearly forty per cent of the doctoral degrees.[248]

Another fear expressed in the 1890 debate--that of increasing direct federal control of the colleges--did not come to pass.[249] It has been generally agreed that the final version of the limiting Grange

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[245]Alfred Charles True, "Brief History of the Morrill Land-Grant College Act of 1890," in Association of Land-Grant Colleges, Proceedings of the Thirty-Ninth Annual Meeting (Burlington, Vt.: Free Press Printing Company, 1926), p. 95. True, Agricultural Education, p. 200.

[246]U. S., Office of Education, Land-Grant Colleges and Universities: What They Are and the Relations of the Federal Government to Them, Bulletin No. 15 (Washington, D. C.: Government Printing Office, 1951), p. 14. (Hereinafter referred to as Land-Grant Colleges and Universities.) Eddy, Colleges, p. 114.

[247]Brunner, Land-Grant Colleges, pp. 65-66.

[248]Morrill Land-Grant Centennial Committee, After 100 Years (n. p.: State of Vermont, 1962), p. 3.

[249]U. S., Congress, Senate, 51st Cong., 1st sess., June 21, 1890, Congressional Record, XXI, 6333-34.

amendment turned out to be almost no limit at all.[250] At least no state or college turned down the money on account of it. To be sure, the Department of Agriculture did see to it that the grants were legally expended.[251] And subsequent laws in the Morrill tradition have been increasingly specific in their object.[252] But the programs thus supported have almost always been preexistent ones, and limitations have not substantially changed their character or purpose.

Sensitized no doubt by the realities of our own era, commentators since 1950 have tended to underline the significance of the racial aspect of the Second Morrill Act. One of them even went so far as to define this as "probably the most important feature."[253] But the true impact on Black education was, at least for a half century, relatively minor. At best, it could be said that the Act enabled the bare survival of some institutions which might otherwise have perished or never have been founded--institutions which, years later, came to have some real importance. As late as 1936 Black schools were still receiving less than six per cent of the federal

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[250]Reisner, Nationalism and Education, p. 479. Ross, Democracy's College, p. 179.

[251]U. S., Office of Education, Land-Grant Colleges and Universities, pp. 16-17.

[252]Gordon C. Lee, "The Morrill Act and Education," British Journal of Educational Studies, XII (November, 1963), p. 36. David Spence Hill, Control of Tax-Supported Higher Education in the United States (New York: The Carnegie Foundation for the Advancement of Teaching, 1934), pp. 23-24.

[253]Eddy, Colleges, p. 102. See also Nevins, The State Universities and Democracy, p. 108; and Hugh S. Brown and Lewis B. Mayhew, American Higher Education (New York: The Center for Applied Research in Education, Inc., 1965), p. 23.

benevolence.[254] Indeed, it wasn't until 1954 that they were even permitted to affiliate with the land-grant colleges' Association.[255]

The remarks made by the dignitaries who attended Justin Smith Morrill's Washington funeral all praised him for his work on the tariff, his sponsorship of the 1862 Land-Grant Act, and his interest in the Library of Congress.[256] The long struggle on behalf of the young land-grant colleges was forgotten. But history has been kinder. It is almost universally recognized now by historians that the shape of American higher education has been significantly influenced by the Second Morrill Act of 1890.

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[254] Eddy, Colleges, p. 263.

[255] Ibid., pp. 254-255.

[256] Memorial Addresses, passim.

CONCLUSION

The Second Morrill Act proved to be an important step forward for the land-grant colleges and universities. The worth of that contribution can still be debated. Land-grant schools have always conceived themselves to be unique institutions with a mandate to apply the resources of higher education to the solving of problems.[257] Originally they used the tools of science and technology to deal with problems in agriculture and industry. In the twentieth century, however, both the methods and the goals of problem-solving have been broadened. State and federal agencies have turned to land-grant schools for expertise in foreign policy, urban affairs, child development, and a host of other fields. Though the forms are often new, the old vision of the land-grant college as a servant of society is still very much alive.[258] But there are critics who maintain that the reality of college performance has fallen far short of the goal and that problem-solving in one area has sometimes created new and worse problems in another.[259] Debate on such issues will no doubt continue.

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[257] Eddy, Colleges, p. 280.

[258] Susan Jacoby, "The Megapopulist Multiversity," Saturday Review (October 14, 1972), pp. 63-66.

[259] Philip W. Semas, "Colleges Slight Small Farmers, Report Charges," Chronicle of Higher Education, VI (June 5, 1972), pp. 1-2. "Land-Grant Colleges Charged in Lawsuit," ibid. (October 24, 1972), p. 1

In the meantime, it can be said that--thanks, in part, to Justin Smith Morrill's persistence--the land-grant colleges and universities are here to stay. George Howard's visionary comment in 1891 has been proved correct: there has come into being a system of state-sponsored, federally supported universities of enduring strength. If nothing else, the Second Morrill Act laid to rest the dream of a national university. There was no longer any question that the United States had chosen a different means to express its national concern for higher education. As was noted years ago, "it is no depreciation of the merit of Senator Morrill's service to education to say that he builded better than he knew."[260]

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[260]Kandel, Federal Aid for Vocational Education, p. 82.

SELECTED BIBLIOGRAPHY

Manuscripts

Illinois Historical Survey. Papers of Jonathan Baldwin Turner.

Proceedings

Association of Land-Grant Colleges. Proceedings of the Thirty-Ninth Annual Meeting. Burlington, Vt.: Free Press Printing Company, 1926.

Convention of Friends of Agricultural Education in 1871. An Early View of the Land-Grant Colleges. Edited by Richard A. Hatch. Urbana: University of Illinois Press, 1967.

Government Publications

Agricultural Experiment Stations Act (Hatch Act). Statutes at Large, Vol. XXIV (1887).

Andrews, Benjamin F. The Land Grant of 1862 and the Land-Grant Colleges. U. S. Bureau of Education Bulletin No. 13. Washington, D. C.: Government Printing Office, 1918.

Atherton, George W. The Legislative areer of Justin S. Morrill. U. S. Bureau of Education... Washington, D. C.: Government Printing Office, 1901.

Blackmar, Frank W. The History of Federal and State Aid to Higher Education in the United States. U. S. Bureau of Education Circular of Information No. 1. Washington, D. C.: Government Printing Office, 1890.

Brunner, Henry S. Land Grant Colleges and Universities, 1862-1962. U. S. Office of Education Bulletin No. 13. Washington, D. C.: Government Printing Office, 1962.

Kelly, Fred J. Land-Grant Colleges and Universities: A Federal-State Partnership. U. S. Office of Education Bulletin No. 21. Washington, D. C.: Government Printing Office, 1952.

Land-Grant Act (Morrill Act). Statutes at Large, Vol. XII (1863).

Memorial Addresses on the Life and Character of Justin S. Morril Delivered in the Senate and House of Representatives. Washington, D. C.: Government Printing Office, 1899.

Morrill Land Grant Centennia Committee. After 100 Years. N. p.: State of Vermont, 1962.

Second Land-Grant Act (Second Morrill Act). Statutes at Large, Vol. XXVI (1891).

True, Alfred Charles. A History of Agricultural Education in the United States: 1785-1925. U. S. Department of Agriculture Miscellaneous Publication No. 36. Washington, D. C.: Government Printing Office, 1929.

_____. A History of Agricultural Experimentation and Research in the United States: 1607-1925. U. S. Department of Agriculture Miscellaneous Publication No. 251. Washington, D. C.: Government Printing Office, 1937.

_____. A History of Agricultural Extension Work in the United States: 1785-1923. U. S. Department of Agriculture Miscellaneous Publication No. 15. Washington, D. C.: Government Printing Office, 1928.

_____, and Crosby, Dick J. The American System of Agricultural Education. U. S. Office of Experiment Stations Circular No. 106. Washington, D. C.: Government Printing Office, 1912.

U. S. Congress. 51st Cong., 1st Sess., Mar. 4, 1889-Oct. 1, 1890. Congressional Record, Vol. XXI.

U. S. Department of Agriculture. Yearbook of Agriculture, 1899. Washington, D. C.: Government Printing Office, 1900.

U. S. Department of the Interior. Annual Report of the Secretary of the Interior for the Fiscal Year Ending June 30, 1889, Vol. V. Washington, D. C.: Government Printing Office, 1891.

_____. Report of the Commissioner of Education for the Year 1887-88. Washington, D. C.: Government Printing Office, 1889.

U. S. Office of Education. Land-Grant Colleges and Universities: What They Are and the Relations of the Federal Government to Them. Bulletin No. 15. Washington, D. C.: Government Printing Office, 1951.

U. S. Office of Experiment Stations. Proceedings of the Fourth Annual Convention of the Association of American Agricultural Colleges and Experiment Stations. Miscellaneous Bulletin No. 3. Washington, D. C.: Government Printing Office, 1891.

_____. Proceedings of the Second Annual Convention of the Association of American Agricultural Colleges and Experiment Stations. Miscellaneous Bulletin No. 1. Washington, D. C.: Government Printing Office, 1889.

_____. Proceedings of the Third Annual Convention of the Association of American Agricultural Colleges and Experiment Stations. Miscellaneous Bulletin No. 2. Washington, D. C.: Government Printing Office, 1890.

Works, George A., and Morgan, Barton. The Land-Grant Colleges. Advisory Committee on Education Staff Study No. 10. Washington, D. C.: Government Printing Office, 1939.

Books

Bevier, Isabel, and Usher, Susannah. The Home Economics Movement. Boston: Whitcomb and Barrows, 1906.

Brown, Hugh S., and Mayhew, Lewis B. American Higher Education. New York: The Center for Applied Research in Education, Inc., 1965.

Committee on Financing Higher Education. Nature and Needs of Higher Education. New York: Columbia University Press, 1952.

Cubberly, Ellwood P. Public Education in the United States: A Study and Interpretation of American Educational History. Revised and enlarged ed. Boston: Houghton Mifflin Company, 1934.

Curti, Merle E. The Social Ideas of American Educators. New York: Charles Scribner's Sons, 1935.

Eddy, Edward Danforth, Jr. Colleges for Our Land and Time: The Land-Grant Idea in American Education. New York: Harper and Brothers, 1957.

Fish, Carl Russell. The Rise of the Common Man. Vol. VI of A History of American Life. Edited by Arthur M. Schlesinger and Dixon Ryan Fox. New York: The MacMillan Company, 1927.

Flexner, Abraham. The American College: A Criticism. New York: The Century Co., 1908.

Harper, William Rainey. The Trend in Higher Education. Chicago: The University of Chicago Press, 1905.

Hayes, Samuel P. The Response to Industrialism: 1888-1914. A volume in The Chicago History of American Civilization. Edited by Daniel J. Boorstin. Chicago: The University of Chicago Press, 1957.

Hicks, John D. The Populist Revolt: A History of the Farmers' Alliance and the People's Party. N. p.: University of Nebraska Press, 1961.

Hill, David Spence. Control of Tax-Supported Higher Education in the United States. New York: The Carnegie Foundation for the Advancement of Teaching, 1934.

Hofstadter, Richard. Social Darwinism in American Thought. Revised ed. Boston: Beacon Press, 1955.

_____, and Smith, Wilson, eds. American Higher Education: A Documentary History, Vol. II. Chicago: The University of Chicago Press, 1961.

James, Edmund J. The Origin of the Land Grant Act of 1862 (the So-Called Morrill Act) and Some Account of Its Author, Jonathan B. Turner. University of Illinois Studies, Vol. IV, No. 1. Urbana-Champaign: University Press, 1910.

Kandel, Isaac Leon. Federal Aid for Vocational Education. New York: Carnegie Foundation for the Advancement of Teaching, 1917.

Krug, Edward A., ed. Charles W. Eliot and Popular Education. No. 8 in Classics in Education. Edited by Lawrence A. Cremin. New York: Bureau of Publications, Teachers College, Columbia University, 1961.

Morison, Samuel Eliot. The Oxford History of the American People. New York: Oxford University Press, 1965.

Morrill, Justin S. Self-Consciousness of Noted Persons. Boston: Ticknor and Company, 1887.

Nevins, Allan. The Emergence of Modern America: 1865-1878. Vol. VIII of A History of American Life. Edited by Arthur M. Schlesinger and Dixon Ryan Fox. New York: MacMillan Company, 1927.

_____. The State Universities and Democracy. Urbana: University of Illinois Press, 1962.

Parker, William Belmont. The Life and Public Services of Justin Smith Morrill. Boston: Houghton Mifflin Company, 1924.

Powell, Burt E. The Movement for Industrial Education and the Establishment of the University: 1840-1870. Semi-Centennial History of the University of Illinois, Vol. I. Urbana: University of Illinois, 1918.

Reisner, Edward H. Nationalism and Education since 1789, a Social and Political History of Modern Education. New York: The Macmillan Company, 1922.

Robbins, Roy M. Our Landed Heritage: The Public Domain, 1776-1936. New York: Peter Smith, 1950.

Ross, Earle D. Democracy's College: The Land-Grant Movement in the Formative Stage. Ames, Iowa: The Iowa State College Press, 1942.

Rudolph, Frederick. The American College and University: A History. New York: Alfred A. Knopf, 1962.

Schlesinger, Arthur M., Jr., and Israel, Fred L., eds. History of American Presidential Elections: 1789-1968, Vol. II. New York: Chelsea House Publishers, 1971.

Shannon, Fred A. The Farmer's Last Frontier: Agriculture, 1860-1897. Vol. V in The Economic History of the United States. Edited by Henry David, Harold U. Faulkner, Louis M. Hacker, Curtis P. Nettels, and Fred A. Shannon. New York: Harper and Row, 1945.

Thwing, Charles Franklin. A History of Education in the United States since the Civil War. Boston: Houghton Mifflin Company, 1910.

_____. A History of Higher Education in America. New York: D. Appleton and Company, 1906.

Periodicals

Adams, Herbert B. "University Extension' and its Leaders." Review of Reviews, III (July, 1891), 593-609.

_____. "University Extension in America." Forum, XI (July, 1891), 510-23.

American Agriculturist. Vols. XLVII-XLIX (January, 1889-December, 1890).

Atlantic Monthly. Vols. LXIII-LXVI (January 1889-December, 1890).

Bailey, Thomas A. "Party Irregularity in the Senate of the United States, 1869-1901" Southwestern Political and Social Science Quarterly, XI (March, 1931), 355-76.

Bartlett, S. C. "College Disturbances." Forum, IV (December, 1887), 424-31.

Boykin, Leander L. "Why All This Fuss about Federal Aid to Education?" Social Studies, LI (March, 1960), 83-88.

Century Magazine. Vols. XXXVII-XXXIX (November, 1888-October, 1890).

Country Gentleman. Vols. LIV-LV (January, 1889-December, 1890).

Eaton, John. "The Nation, the Only Patron of Education Equal to the Present Emergency." Education, IV (March, 1884), 333-45.

Education. Vol. X (September, 1889-June, 1890).

Eliot, Charles. "The New Education: Its Organization." Atlantic Monthly, XXIII (February, 1869), 203-20, and (March, 1869), 358-67.

Emerick, C. F. "Agricultural Discontent." Political Science Quarterly, XI (September, 1896), 433-63.

Forum. Vols. XI-IX (September, 1888-August, 1890).

Gates, Paul W. "Western Opposition to the Agricultural College Act." Indiana Magazine of History, XXXVII (June, 1941), 103-36.

Hale, W. G. "Is Classical Education Practical Education?" Academy: A Journal of Secondary Education, II (June, 1887), 203-208.

Harper's New Monthly Magazine. Vols. LXXIX-LXXX (June, 1889-May, 1890).

Hilgard, Eugene W. "Progress in Agriculture by Education and Government Aid." Atlantic Monthly, XLIX (April, 1882), 531-41, and (May, 1882), 651-61.

Howard, George E. "The State University in America." Atlantic Monthly, LXVII (March, 1891), 332-42.

Hyde, William DeWitt. "The Future of the Country College." Atlantic Monthly, LXII (December, 1888), 721-26.

"Justin S. Morrill." Nation, LXVIII (January 5, 1889), 5-6.

King, Clarence. "Artium Magister." North American Review, CXLVII (October, 1888), 369-84.

Ladd, George T. "The Development of the American University." Scribner's Magazine, II (September, 1887), 346-60.

Laughlin, J. Laurence. "Political Economy and the Civil War." Atlantic Monthly, LV (April, 1885), 444-50.

Lee, Gordon C. "The Morrill Act and Education." British Journal of Educational Studies, XII (November, 1963), 19-40.

"Liberal Education of the Future." Nation, XXXVIII (June 26, 1884), 542-43.

Lowell, Edward J. "A Liberal Education." Atlantic Monthly, LXI (January, 1888), 89-94.

Mays, Arthur Beverly. "The Concept of Vocational Education in the Thinking of the General Educator, 1845-1945." University Of Illinois Bulletin, Vol. XLIII (July 1, 1946).

Morrill, Justin S. "Erratic Platforms of the Democracy." North American Review, CLV (September, 1892), 268-79.

_____. "Free Trade or Protection." North American Review, CL (March, 1890), 281-300.

_____. "Notable Letters from My Political Friends." Forum, XXIV (October, 1897), 137-49, (November, 1897), 267-81, and (December, 1897), 402-15.

"Morrill Act and Agricultural Colleges." American Agriculturist, L (February, 1891), 100.

Newcomb, S. "President Eliot on a Liberal Education." Science, III (June 13, 1884), 704-705.

Patten, Simon N. "The Educational Value of College Studies." Educational Review, I (February, 1891), 103-20.

Pritchett, Henry S. "The Spirit of the State Universities." Atlantic Monthly, CV (June, 1910), 741-53.

"Real Weakness of American Universities." Nation, XXXVI (May 3, 1883), 377.

Ross, Earle D. "Contributions of Land-Grant Colleges and Universities to Higher Education." School and Society, XC (May 5, 1962), 231-36.

_____. "The 'Father' of the Land-Grant College." Agricultural History, XII (April, 1938), 151-86.

_____. "The Land-Grant College: A Democratic Adaptation." Agricultural History, XV (January, 1941), 26-36.

_____. "The Manual Labor Experiment in the Land Grant College." Mississippi Valley Historical Review, XXI (March, 1935), 513-28.

_____. "On Writing the History of Land-Grant Colleges and Universities." Journal of Higher Education, XXIV (November, 1953), 411-14,451-52.

Rural New Yorker, Vols. XLVIII-XLIX (1889-1890).

Scribner's Magazine, Vols. V-VIII (January, 1889-December, 1890).

Shannon, Fred A. "The Status of the Midwestern Farmer in 1900." Mississippi Valley Historical Review, XXXVII (December, 1950), 491-510.

Shea, John Gilmary. "Federal Schemes to Aid Common Schools in the Southern States." American Catholic Quarterly Review, XIII (April, 1888), 345-59.

Sill, E. R. "Should a College Educate?" Atlantic Monthly, LVI (August, 1885), 207-15.

Smith, Annie Tolman. "The Education of Agriculturists." Education, II (November, 1881), 166-72.

Smith, Charles Sprague. "The American University." Education, VIII (October, 1887), 103-10.

Southern Planter, Vol. LI (January-December, 1890).

Thwing, Charles F. "The National Government and Education." Harper's New Monthly Magazine, LXVIII (February, 1884), 471-76.

Walker, Francis A. "Industrial Education." Journal of Social Science, XIX (December, 1884), 117-31.

Wellborn, Fred. "The Influence of Silver-Republican Senators, 1889-91." Mississippi Valley Historical Review, XIV (March, 1928), 462-80.

Wheeler, N. M. "The Machine in Education." Education, II (January, 1882), 300-307.

White, Andrew D. "How I Was Educated." Forum, II (February, 1887), 559-73.

_____. "The Next American University." Forum, V (June, 1888), 371-82.

Newspapers

New York Times, January 1-December 31, 1890.

New York Tribune, May 1-August 31, 1890.

Style Manual

Turabian, Kate L. A Manual for Writers of Term Papers, Theses, and Dissertations. Third ed., revised. Chicago: The University of Chicago Press, 1967.