

# The Impact and Implications of the Morrill Act on Curriculum Reform in American Higher Education

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**Abstract:** *The enactment of the Morrill Act in 1862 broke the tradition of American higher education and opened up a path of higher education development belonging to the United States. Its promulgation changed the relationship between the U.S. federal government and higher education, gave commoners' children the opportunity to receive higher education, promoted the legalisation and structural diversification of U.S. higher education, and laid the foundation for the transformation of U.S. society. The Act has a profound impact on the curriculum reform of American higher education in terms of curriculum content, teaching materials, teaching methods and audience groups, from which we can draw the following inspirations: first, improve the laws and regulations of higher education and provide legal and financial protection; second, clarify the cultivation objectives and develop high-quality programmes; third, establish practice places and promote the combination of theory and practice; fourth, establish brand institutions and give full play to the service function of colleges and universities. functions.*

**Keywords:** Morrill Act, Higher Education, Curriculum Reform.

## 1. Introduction

Higher education curriculum reform has always been an important issue in the field of global education. In the course of higher education reform in many countries, the experience of the United States has a significance that cannot be ignored. As a landmark bill in the history of American higher education, the Morrill Act not only promoted the rise of land-grant colleges in the United States, but also had a far-reaching impact on the subsequent reform of higher education programmes.

## 2. Background and Value of the Enactment of the Morrill Act

The end of the American War of Independence marked the departure of the United States from years of British colonial rule, achieving national independence and embarking on the road of capitalist development. At the beginning of the founding of the country, due to the impact of the western development, the second industrial revolution and the wave of immigration, the United States at that time was faced with the surge of arable land, the lack of labour force, the low cultural quality of farmers, the backwardness of industrial and agricultural technology, the demand for agricultural products and other multiple difficulties [1]. In order to adapt to economic development, the United States urgently need to create a new type of technical university to train specialised technical personnel. However, in the early years of the founding of the United States, American higher education is still a long time by the influence of European higher education. Old-style colleges are few in number, small in scale, subjects with a strong classical and religious colours, advocate gentleman education, generally despise practical and technical education, which is difficult to serve social development and economic construction [2]. The classical liberal arts education in traditional colleges can no longer adapt to the new situation, and it is urgent to reform traditional higher education and cultivate the talents needed by the

society.

From 1848-1861, Justin Smith Morrill repeatedly proposed to the federal government that a portion of the states' public lands be granted for the construction of agricultural and industrial colleges that would be more practical and responsive to the needs of the community [3]. After Morrill's proposals were repeatedly rejected and refused, the bill finally passed Congress in 1862. The main elements of the Morrill Act include: the federal government to the states and quasi-states to grant a portion of the land, to fund the states to open agricultural and technical craft colleges, to promote the development of agricultural and industrial education; the states are required to sell the grant of land, using the funds obtained to establish a permanent fund, in order to provide for the development of at least one specialised colleges to provide financial security; such colleges to teach knowledge of agriculture and mechanical engineering technology, not excluding the teaching of other subjects Such colleges are to teach mainly agricultural and mechanical engineering processes, not excluding the teaching of other subjects and classical disciplines, and should also include military training [4].

The Morrill Act marked the formation and beginning of a trend in the development of higher education in the United States [5]. The Act changed the relationship between education and the government, so that the majority of common people's children to get the opportunity to receive higher education and specialised skills training, to provide legal support and protection for the training of talents, and to promote the legalisation and structural diversification of higher education in the United States. The Act promotes the development of practical professions in American higher education. More importantly, it highlights the economic function and social service function of higher education and sets the tone for the transformation of American society from an agricultural country to an industrial country [6].

Following the Morrill Act, the U.S. federal government also

promulgated a series of related bills, such as the Hatch Act of 1887, the Second Morrill Act of 1890, the Smith-Lever Act of 1914, etc., all of which improve and supplement the Morrill Act and the regulations related to land-grant colleges. These Acts mainly stipulated the amount of federal government appropriations and other subsidies in the form of laws, and established agricultural experiment stations, agricultural extension stations and other places of teaching practice to ensure that the educational and teaching activities of the land-grant colleges could be carried out smoothly, expanding the scale of teaching in the land-grant colleges and improving the quality of teaching.

### **3. The Impact of the Morrill Act on Curriculum Reform in American Higher Education**

#### **3.1 Curriculum Content**

Due to the influence of British immigrants as well as the cultural traditions of continental Europe, higher education in the United States in the early years of the founding of the country still had strong classical and religious colours. Traditional colleges were small and few in number, with theology as the top priority, valued classical education, and pursued an elitist education in which only the upper class could enter the college to receive higher education [7].

These colleges inherited the British classical university tradition and absorbed the schooling ideas of Oxford and Cambridge, focusing on teaching classical courses and religious teachings [8]. The curriculum of the colonial colleges originated from the Seven Arts, namely grammar, rhetoric, dialectics, astronomy, arithmetic, music, and geometry. During the early years of the nation, the influence of the American church on education remained strong. In order to meet the needs of religion, the traditional colleges also added courses in philosophy and ethics, etc. In 1638, Harvard College offered courses in logic, medicine, rhetoric, theology, ethics, politics, Greek etymology, and dialectics [9]. Although Yale College, Philadelphia College, and others later offered more arithmetic and science courses, such as algebra, architecture, navigation, and surveying, the core of the curriculum still followed the ideas of the classical European curriculum [10].

In the 1830s, 1840s and 1850s, the direction of development in most of the colleges was to increase the number of electives and reduce the number of classical languages, replacing them with an increased number of courses in modern languages and scientific studies, with an emphasis on practical and direct experience, a development which became more pronounced in the policy implemented by the Morrill Act. Land-grant colleges were founded primarily to teach knowledge related to agricultural and mechanical technology, but they did not exclude the study of other disciplines and classical subjects. Cornell University, for example, not only pushed its students toward specialisation, but also expanded the concept of the profession to include professional groups such as agriculture, social services, and teaching; it also retained disciplines such as philosophy and history, believing that the study of these would be useful for students to enter the fields of politics and social services [10]. The land-grant colleges were

distinguished from traditional colleges by the novel concept of a practical curriculum that focused on knowledge of agriculture and mechanical skills. By 1900, the state land-grant colleges and universities had demonstrated their ability to provide a variety of practical instruction and social services, with agriculture, civil engineering, mining, military training, pedagogy, and home economics added to the school's curriculum.

The continued growth of land-grant colleges and the increasing sophistication of the agro-industrial professions increased the recognition of practical specialised courses in institutions of higher learning. The late nineteenth-century curriculum continued to shift from the classical curriculum and theology to the practical, and the American conception of the university mindset underwent a fundamental change. In addition to the land-grant colleges, which centred exclusively around practical courses, a number of traditional colleges made corresponding changes to effect the transition, with many traditional universities adding colleges of agriculture and technical crafts to push the university in the direction of integration. Most colleges have retained Latin and Greek, English grammar, and some classics courses, while adding specialised disciplines to meet the needs of their students. A liberal education at Yale includes the sciences, literature, and other modern disciplines in addition to the classics.

#### **3.2 Textbooks**

The American Heritage College inherited the tradition of the European and especially the British colleges, and because of the extreme emphasis placed on the study of the classical curriculum, most of the textbooks were written and taught in Latin, and the sources of the materials were relatively narrow and centred around classical writings [9]. Colleges have limited funds and there are still very few textbooks specifically for teaching in colleges. Whatever books could be found in the college's school library were used for the teaching of the faculty or the memorisation and reading of the students [10].

In the early years of the Morrill Act, land-grant colleges encountered difficulties in their infancy. In Kansas in 1875, for example, the state's agricultural and industrial colleges at that time offered courses in agro-industry, farming, carpentry, home manufacturing, car building, lacquering, and forging and engraving. Some of these courses, such as telegraphy, copperplate printing, and photography, required more elaborate equipment, but the land-grant colleges were not yet capable of providing such elaborate equipment for instruction [11]. Therefore, the early land-grant colleges were still relatively simple in terms of teaching materials, especially the teaching materials or aids needed for some mechanical technology courses.

Afterwards, the United States federal government enacted a series of laws related to the Morrill Act and the land-grant colleges, such as the Hatch Act and the Smith-Lever Act, etc., and these subsequent bills are mainly aimed at improving the quality of teaching in the land-grant colleges and increasing the federal government's appropriation of funds for them and their funding as the main content. The government's financial allocations to higher education were stipulated in the form of a

law, guaranteeing a source of funding for the development of higher education. The types of textbooks are no longer limited to classical works and grammar books, but have been expanded to include more sophisticated and specialised equipment and instruments; the classroom is no longer confined to the classroom, but more often takes students to farms, ranches, and machine shops for on-site practical instruction. Teachers also make full use of the various field teaching resources to collect as much information as possible and organise it into reliable and practical teaching materials for use in teaching. The diversification and specialisation of teaching materials have increased students' interest in learning, improved the classroom atmosphere, and enabled students to feel more intuitively how theory can be applied to practice.

### 3.3 Teaching Methods

Teaching methods in traditional colleges are based on lectures, debates and recitations. Lectures consist of the teacher explaining the original text of a work or textbook and various notes, and students taking notes word by word while listening to the teacher's explanations. Debates are arranged after lectures, in which the teacher puts forward issues or arguments and organises students to debate them in the classroom, and sometimes the debates take place in some public places [12]. Recitation involved memorising various types of debate material, longer passages of essays or even complete speeches by famous orators, and students were regularly tested on their familiarity with the content of particular textbooks [13]. In general, teaching at the early traditional colleges was still based on the 'teacher teaches, student listens' model, where teachers dominated the classroom and theory was emphasised over production.

Land-grant colleges link higher education with the American agricultural and industrial technological revolution, the curriculum towards diversification and specialisation, the implementation of the Act has brought about a brand new change in American higher education. Land-grant colleges changed the traditional education from the actual teaching methods, emphasised the combination of agricultural and industrial production reality, and generally set up demonstration workshops. The establishment of a large number of experimental stations for students to provide a practical place, students are no longer bound to the campus to learn monotonous and boring theoretical knowledge, but under the leadership of the teacher's hands-on practice, investigation of industrial and agricultural production, a complete change in the rote learning of the traditional teaching methods. As a result of the change in teaching methods, more young people's interest and enthusiasm for learning have been aroused, and the Land Grant College has gradually grown and become more and more nationally recognised.

### 3.4 Audience Groups

The courses offered by traditional colleges were basically fixed and classical courses, which were closely linked to the social environment and economic development of the time. The society needed these colleges to produce priests for the church, teachers for the grammar schools and knowledgeable gentlemen as administrators for the management of the

society [9].

For the vast majority of young people, very few entered the traditional colleges, partly because there was no need for them to go to the colleges specifically, and partly because it was not easy for them to enter the colleges successfully. The programmes at traditional colleges did not satisfy the interests of most young people at that time, and few families could afford to pay the tuition fees. Enrolment was low, and admission requirements at traditional colleges further limited the number of students who could attend. Harvard College, for example, required admission to be able to recite Latin psalms and essays, and to set forth the laws of Greek grammatical variations; Yale College, which had similar requirements to those of Harvard College, later added arithmetic to its admission requirements, and also required sufficient proof of innocence of life [10].

Under the financial allocation and funding of land-grant colleges by the U.S. federal government, higher education in the U.S. has embarked on the path of democratisation, targeting the middle class and the majority of workers 'and farmers' children [14]. The courses offered by land-grant colleges are mostly practical professional and technical courses that meet the interests and needs of local workers. The unique and varied courses stimulate young people's desire to learn, coupled with the land-grant colleges to run sufficient funds, low tuition fees, some children from poor families can also be enrolled in the college, the number of students enrolled in the college is also increasing.

The Second Morrill Act of 1890 established a system of black colleges and universities, which led to the establishment of black land-grant colleges, forcing some of the state land-grant colleges to open their doors to black students or to set up separate colleges for blacks. Land-grant colleges repeatedly emphasised the ethos of service to all and that women should not be excluded. As a result, Michigan and Wisconsin led the way with coeducational facilities, and some of the land-grant colleges in the West began to admit women on their own. By the 1870s, land-grant colleges in the East also became open to women [15]. The land-grant colleges provided access to a wider range of people, and the scale of higher education expanded. From elite education to popularisation and democratisation, higher education in the United States continued to develop a path that suited its own development.

## 4. Enlightenment

### 4.1 Sound Laws and Regulations, Provide Financial Security

The enactment and implementation of the Morrill Act and its related acts have played a pivotal role in promoting the development of higher education in the United States by leaps and bounds, changing the relationship between the United States federal government and higher education. From the point of view of the appropriation for land-grant colleges, the federal government regulates the development direction of higher education by funding colleges and universities, showing the government's responsibility for education.

Improving higher education laws and regulations plays an

important role in the reform of higher education, and regulating financial investment in higher education can ensure that colleges and universities have sufficient funds to carry out all kinds of educational and teaching work in an orderly manner. Colleges and universities need to understand the urgent requirements for the sustained and healthy development of higher education, and formulate ways to guarantee the source and financing of funds, while improving the relevant management mechanism, strengthening the financial management and supervision of colleges and universities to ensure its transparency and fairness, and putting the education funds to practical use. Call on the whole society to participate in the financing of higher education, and actively attract social capital. With reliable and abundant funds for school development, we can have advanced teaching and laboratory equipment, thus attracting first-class teachers and high-quality students [16].

#### 4.2 Clarifying Training Objectives and Developing Quality Programmes

At the beginning of the construction of the land-grant colleges, they were designed to cultivate talents specialising in agriculture and mechanical crafts, with a clear positioning. With the improvement of the quality of education and the expansion of the scale, the land-grant colleges have promoted the leapfrog development of American higher education and provided talent support for the economic development of the United States.

Enhancing the quality of higher education, especially the quality of talent cultivation, has become the theme of higher education reform in the present era. Colleges and universities should optimize the talent cultivation programme, ensure stable sources of students, strengthen the teaching staff, and cultivate personalized high-quality talents according to professional characteristics. According to the type of institution, they should clarify the cultivation objectives, set up high-quality courses, and implement a series of participatory, inspiring and developmental teaching methods, such as scientific experiments, small-class teaching, personalised teaching, and inquiry and discussion. Colleges and universities should also promote the integration and optimisation of resources in terms of curricula, teaching materials and teaching facilities, develop high-quality teaching materials and establish a disciplinary system.

#### 4.3 Establishment of Practical Venues to Promote the Application of Knowledge

The land-grant colleges emphasise the combination of theory and practice and the practical application of knowledge by students. The Hatch Act proposes the establishment of agricultural experiment stations, absorbing the scientific and technological strength of agricultural colleges and universities to participate in the work of the experiment stations; the Smith-Lever Act focuses on transforming the social service function of the land-grant colleges into service practice activities, and advocates the establishment of agricultural extension stations to carry out agricultural science and technology promotion work. These measures provide students with valuable practical opportunities to promote learning to use.

At this stage, the research results of a considerable part of the subjects of our institutions of higher learning cannot really be applied in practice, and the conversion rate of science and technology is low, making it difficult to be promoted. For this reason, China's institutions of higher education, especially local colleges and universities, should pay attention to the close connection with the reality of local social development when strengthening teaching and research work [17]. Special funds should be set up and dedicated to the establishment of practice places and internship bases. Actively explore the mode of collaborative education between schools and enterprises, promote the use of learning through school-enterprise alliances, and apply the research results to actual production, so as to guide higher education to better serve the society.

#### 4.4 Creating branded Colleges to Fulfil The Service Function of Colleges and Universities.

The Morrill Act brought the United States higher education's 'precious treasure' is the land-grant colleges established by the states using land grants. From the Morrill Act of 1862 to the Second Morrill Act of 1890, a total of 56 land-grant colleges for industrial and agricultural education. At the beginning, the land-grant colleges also encountered problems such as imperfect system, insufficient students and teachers, etc. However, with continuous improvement and refinement, they broke the stereotypical impression that people thought that those who received agricultural and labour education could not do a decent job, and gradually gained the recognition of the general public.

### 5. Conclusion

In the reform of higher education, the internal construction of institutions of higher learning should be strengthened, especially higher vocational and technical education, to overcome the obstacles of people's traditional education concepts and strengthen policy guidance. While stabilising the source of students and guaranteeing the quality of students, it is also necessary to optimise the teaching staff and improve the quality of teaching in order to give full play to the service function of colleges and universities. Therefore, colleges and universities should combine the reality of the society and run the brand and characteristics of the institutions. The role between colleges and universities and society is mutual, and colleges and universities should pay attention to adapting to social production and cultivating talents needed for social development [18].

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