
George Washington Atherton and the Creation of the Hatch Act

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George Washington Atherton, a college president in defeat, paused from his frenetic schedule for a few moments with a newspaper. Frustrated by the governor's veto of an 1883 state agricultural experiment station act, the recently installed executive of the Pennsylvania State College sought new ways to overcome hostility toward his land-grant college. A state supported agricultural experiment station at the institution would have meant more funds for the fledgling college, scientific aid for state farmers, and additional substance in the college's then-sparse agricultural curriculum. In short, the station could have won over many college enemies by proving the college's worth.¹

Atherton had imagined the cause to be well on its way when he successfully swung votes from legislators only recently overheard calling the Commonwealth's land-grant college "that sink-hole."² But the governor's veto rang with an even more malicious indignity. Using the veto as an opportunity for attack, Governor Robert Pattison termed the college "a costly and useless experiment from the beginning." The school's record, he went on, "is not such to induce the belief that any practical good ever has or ever will come from it."³ As Atherton scanned the newspaper, however, he anticipated relief from the governor's hostility. His eye caught a brief article mentioning an Iowa representative's recently-introduced Congressional bill for federally supported but college-connected agricultural experiment stations. Shortly thereafter, Atherton hopped a Washington-bound train to find out more about the promising scheme.⁴

Four years later, after drafting and rewriting bills, appearing before Congressional committees, lobbying, and leading land-grant forces, Atherton's efforts yielded the Hatch Agricultural Experiment Station Act. Today, largely forgotten, the act's impact on American higher education should not be underestimated. The legislation provided annual grants to each state and territory for agricultural experiment stations as land-grant college departments or independent agencies. An early example of decentralized federal control, the Hatch Act created a national framework of autonomous research facilities to address local farming problems while expanding the country's agricultural knowledge. Of greater importance to American higher education, however, the act brought permanent federal support to scientific research in academia and initiated a continuous flow of federal funding to the land-grant system. It sanctioned land-grant colleges to

serve as cynosures of agricultural research and shape national agricultural policy. The act's seminal influence marked the rise of land-grant colleges as research institutions.⁵

If the Hatch Act is only dimly recollected, George Washington Atherton has faded into oblivion. Although his significant contributions to Penn State have been recognized, Atherton appears only occasionally as footnote material in histories of land-grant education. Perhaps Atherton has been neglected because educational history, lacking the flair and romance of political or social history, remains an underdeveloped stepchild of both. But Atherton was no woolly-headed academic. During the late nineteenth century, he received approbation as a leading advocate of land-grant education.⁶ Even superficial biographical sketches portray a politically astute, nationally recognized figure who helped shape land-grant policy for over twenty years. "Probably the most valuable of Professor Atherton's services," states one of the brief accounts of his life, "were those in behalf of government-endowed institutions of learning."⁷ A profile in *Dictionary of American Biography* notes that Atherton "threw himself with characteristic energy into many activities both state and national."⁸

Time and the minimal appeal of educational history have buried Atherton's reputation as a land-grant leader, and his Hatch Act activities have never been fully recognized. Only recent scholarship on the land-grant movement, Roger L. Williams's 1988 dissertation *George W. Atherton and the Beginnings of Federal Support to Higher Education*, acknowledges Atherton's pivotal role in securing the measure.⁹ Atherton's part in the drama, usually played from the wings, screened his role. Consequently, Atherton's efforts on behalf of the act were underestimated by his contemporaries and overlooked by both land-grant and agricultural science historians.¹⁰

As Williams points out, the meager corpus of land-grant history attributes land-grant system development to evolution and determinism. Related agricultural science histories, he notes, focus on agricultural issues at the expense of the broader land-grant context.¹¹ Williams, using Atherton's papers at Penn State, argues that Atherton's leadership of land-grant advocates at a crucial period secured federal support vital to the system's progress. Similarly, this article, also based on Atherton's papers will attempt to clear the confusion over whom to credit for the act.

Seventeen years after passage of the Hatch Act, in response to an inquiry concerning authorship of the measure, George W. Atherton wrote, "I regard my work in drafting in promoting passage of it as one of the most valuable services I have been able to render my fellowmen." He also expressed hope of "some day to be able to write a full and impartial history of the measure."¹² Unfortunately, Atherton never undertook such a project, but the evidence indicates that he deserves recognition as the Hatch Act's "father," and that his motivation sprang from a broad interpretation of the Morrill Land-Grant Act.



Atherton in 1882, at the time he assumed the Pennsylvania State College's Presidency and immediately prior to his efforts on behalf of the National Agricultural Experiment Station legislation.

Atherton's crusade for colleges established under the Morrill Act began over a decade before his involvement with the Hatch Act. Just six years after passage of the 1862 land-grant legislation, Atherton gained prominence while a professor of political economy and constitutional law at New Jersey's land-grant institution, Rutgers College, in New Brunswick. There the young professor developed a network of contacts with prominent educators and public officials. Tapped to serve on Annapolis's Board of Visitors in 1873, the Grant administration also asked him to serve on the Red Cloud Indian agency investigation commission. Active in New Jersey politics, Atherton suffered defeat in 1876 as a Republican candidate for Congress in a heavily Democratic district.¹³ Three years later, he chaired a commission studying New Jersey's tax system. Atherton also

later, he chaired a commission studying New Jersey's tax system. Atherton also found time to study law and was admitted to the New Jersey bar during this period.¹⁴

Atherton's national land-grant activities during the 1870s indicate he developed a broad view of public higher education's potential early in his career. When a suspicious Congressional committee began probing the land-grant schools, Atherton sent a form letter coaching each college president on how to respond to the inquiry. He noted that the inquiry "will assume the old and exploded fallacy that these institutions are solely 'agricultural'." Atherton further reminded the presidents that Morrill Act provisions forbade them from maintaining only agricultural colleges. Indeed, the law "required them to provide a 'liberal' as well as 'practical' education for all 'the industrial classes'."¹⁵ When a bill he drafted for Senator Justin Morrill to increase land-grant college funding stalled in 1873, Atherton undertook a survey of "the fruits up to the present time of the Congressional land grants."¹⁶ Atherton expressed enthusiasm for the results in a nationally acclaimed speech delivered at the 1873 National Teacher's Association Elmira Convention. Although he lobbied continually for further land-grant funding throughout the 1870s, the Elmira speech cemented his reputation as a leading land-grant educator. Three universities offered him their presidencies by mid-decade.¹⁷

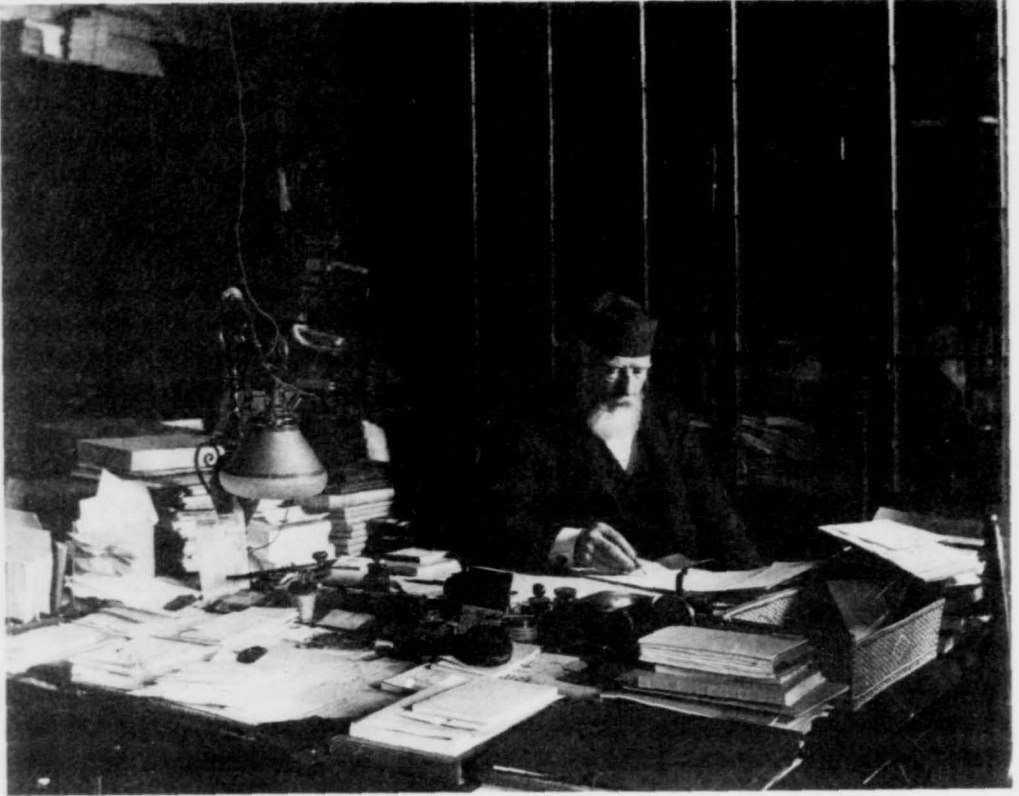
At the Elmira convention, Atherton shared the dais with Presidents Charles Eliot of Harvard and Princeton's James McCosh.¹⁸ The crusty McCosh grabbed headlines during the convention by attacking the land-grant system and Atherton's own Rutgers College. Why, McCosh wondered, should the federal government aid one college in a state and not others? Why, for example, should Princeton receive no federal support while Rutgers, "managed by a few Dutchmen," did?¹⁹ The convention could have been billed as a debate. When Atherton rose, he outlined his vision of land-grant education and expressed his political and educational philosophy. Enumerating the convincing college data his survey revealed, Atherton asserted "no government in the world can point to an educational trust administered with more wisdom and fidelity, or with larger results, than this." Answering critics of the federally supported institutions, Atherton said the system's only defect lay in the government's failure to recognize public higher education as a necessity. Education of the individual, Atherton maintained, promoted the welfare of state and nation. Presaging Dewey, Atherton stated that a self-perpetuating democracy must educate its people for useful citizenship. He left little room for debate or equivocation in the matter. "There can be no such thing as a free country without education," he said. Responding to charges that American higher education should be a private matter, Atherton retorted, "the question whether a free country has a right to educate its citizens is no other than the question whether it has a right to live as a

free country." Education and democratic government of necessity had to form a partnership if they were to work properly. And he advanced another idea radical for the time: that the government should cease donating lands to railroad corporations and instead devote them to public education, an "object that subserves the interests of all the people, not alone for to-day, but for all time." The only appropriate investment of a government's resources was in the development of its future citizens. These were the progressive, principles Atherton embraced and refined throughout his career.²⁰

When Atherton was chosen for the Pennsylvania State College presidency in 1882, the renowned land-grant advocate and the feeble college seemed a strange match.²¹ Underfunded and undervalued, the isolated school was at its nadir. Founded nearly thirty years earlier as an academy for budding farmers, the state college had progressed but little by 1882 and appeared to be groping for a mission. Consisting of only two buildings and thirty-seven collegians, the school could only have been viewed as a challenge for Atherton.²² A faculty member recalled the conditions of life to have been "decidedly primitive," and that Atherton often worked late in his office, where he might be "startled from his work as some sudden noise or call reminded him that the building was lighted entirely by lamps, while the supply of coal oil and the ammunition for the cadet battalion had been thoughtfully stored in the basement, in the immediate vicinity of the president's office."²³

Odd as the Atherton-Pennsylvania State College match seemed, his background had shaped him into an ideal candidate for the job.²⁴ Atherton's classical training at Phillips Exeter and Yale included a struggle to earn his way through both, yet the experience taught him the value of liberal education for the common man.²⁵ Born in 1837 of respected but unlanded Massachusetts Puritan stock, Atherton as a boy labored in cotton mill and farm to support a widowed mother and fund his education. Temporarily dropping out of Yale to serve as an officer in the Union cause, Atherton attained a captain's rank after participating in Major General Ambrose Burnside's North Carolina campaign. But "swamp fever" forced him to leave the army, and he managed to graduate on schedule from Yale in 1863. For the next five years he taught at Albany Boy's Academy and St. John's College, until Illinois Industrial University offered him a position on its new faculty. Though he only served Illinois' land-grant school a year, Atherton there found inspiration in the potential for land-grant education.²⁶

This inspiration guided the new college president's mission when he struck against the edges of decisive changes sweeping society. Complaints from pulpits, periodicals, legislative halls, and agricultural societies lamented about the "farm problem." Distress sapped farm communities in the wake of the 1873 financial panic as power shifted from agrarian to industrial interests. Not only were farmers economically disadvantaged; they complained of soil exhaustion and the exodus of their sons from the farm to more lucrative opportunities in the city.



Atherton at work in his study, about 1900.

"The boys! The boys!" lamented the Pennsylvania State Dairymen's Association in its 1887 annual report. "The future cornerstones of not only our national existence, but the props for *our* existence to carry on the farming interest to success. What are we to do with them?"²⁷

Vanished along with the boys were images of sturdy yeomen forming the republic's bedrock. As the proportion of farmers dropped, Thomas Jefferson's idealized yeomen had turned into rubes, hicks, and hayseeds. In response to overall declining farm conditions, the agricultural community lashed out in a number of directions and struck the land-grant colleges at their heart. Farmers, legislators, and even private college educators like McCosh charged that these schools failed to produce trained farmers. The farm community especially viewed land-grant schools with suspicion for perpetuating vestiges of classical education. Both federal and state investigations into college affairs followed.²⁸ As Pennsylvania's *Practical Farmer* commented about the Pennsylvania State College in 1871, "If it has ever turned out any young men who have since become eminent as farmers, we have not heard of them. The very word 'agricultural college' is distasteful."²⁹

Atherton understood the failure of practical farm training. At the time he

assumed the state college's presidency, few of the institution's students majored in agriculture. The lack of sufficient agricultural information forced instruction onto model farms, which proved expensive to operate and unattractive to students. Why, the students wondered, was a four-year college education necessary to learn skills acquired at home for free?³⁰ "A very large part of the work was what the boys had been accustomed to since childhood," Atherton wrote, "and they failed to perceive its 'educational' use."³¹

Although like other land-grant educators Atherton faced vocal advocates of farming taught as a business, he echoed his friend Justin Morrill's contention that the Morrill Act never intended to create training camps for farmers. To substantiate his view, Atherton continually pointed to the act's wording: "to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."³² To Atherton, the land-grant mission meant educating youth liberally while preparing them for careers in a changing American economy.³³ The Morrill Act represented opportunity to those ordinarily denied access to the halls of ivy. According to Atherton, the states that accepted its terms had received more than a gift: they had "entered into a contractual obligation with the United States to make a College a part of its system of public education."³⁴ Perhaps Atherton's stand on the issue emerged from the recollection of toiling in farm and factory to finance a liberal education he esteemed highly. At any rate, Atherton looked toward America's future instead of its past, and the stars foretold little of educational value in simulated farming *per se*.

Atherton's disdain for practical farming as a core collegiate subject belied the importance he ascribed to agriculture in the land-grant scheme. No stranger to agriculture, he had served on the executive committee of New Jersey's State Board of Agriculture while a professor at Rutgers.³⁵ He also struck up a friendship with Dr. George Cook, head of New Jersey's agricultural experiment station, who convinced Atherton that agricultural experiment stations signaled the future of American agriculture. As Atherton and other land-grant educators realized, scientific experiments in agriculture could reap a double bonus. Not only would experimentation generate more teaching material, but it could also placate farmers with practical farming information.³⁶ As a result, land-grant schools could impress parsimonious state representatives by proving their value to the legislators' constituents. "Unless the improvement of agriculture means making it more profitable," wrote an agricultural scientist in 1882, "it will be of little avail to preach and teach it."³⁷

Agricultural research was hardly a new phenomenon in land-grant education by the time Atherton assumed the Pennsylvania State College presidency. Investigation of some sort had been conducted at most of the colleges since their early years. Legislators who authored the Morrill Act encouraged experimentation and dissemination of findings to farmers. But experimentation proved a

drain on sparse Morrill funding. Moreover, most research consisted of fertilizer analysis, leaving time for little else. Nevertheless, agricultural experimentation proved popular enough in an age of scientific application that on the eve of the Hatch Act's passage, fourteen states operated experiment stations, and thirteen others conducted a variety of unorganized experimentation.³⁸

Few American scientists tried to emulate the vanguard activities of English and German agricultural experiment stations after the Civil War. The first American stations took on a utilitarian rather than the European theoretical approach. "We do not want science floating in the skies," an American farmer remarked, "we want to bring it down and hitch it to our plows."³⁹ Soon after assuming the Pennsylvania State College presidency, Atherton supported a faculty member's efforts to establish a research station. He released Whitman Jordan, who had worked at the nation's first station in Connecticut, from his teaching responsibilities to devote full time to agricultural investigation. Jordan sliced up a parcel of the campus's farmland into experimental plots, and within the year had distributed to farmers thousands of bulletins that explained the experiments' results.⁴⁰ The public relations benefit of sending farmers information of practical use to them was not lost on Atherton. In a pamphlet he wrote to advance the state experimentation bill, Atherton noted that "however valuable the results obtained in such a station, its work would be far from complete if it did not provide for communicating them to those who could take advantage of them in every day practice. The demand is for plain, practical, available statements which every farmer will look for, test by his own methods, and obtain profit for."⁴¹

The underfunded state college found it impossible to engage in significant agricultural experimentation without outside support. The Pennsylvania State Board of Agriculture, which controlled the college's activities, received a proposal in 1882 to sell two of the college's experimental farms and invest the proceeds in a college experiment station. The board turned down the proposal, instead backing a resolution by Atherton that stated simply "it is highly important to the agricultural interests of this Commonwealth that a scientific experiment station be established at the earliest practicable time."⁴² The board and Atherton then requested introduction in the legislature of Atherton's bill asking \$10,000 for an experiment station. When the governor quashed this bill, Atherton decided to pursue at the national level the matter of experiment stations.⁴³

In Congress, Atherton sought out Representative Cyrus C. Carpenter of Iowa, who had introduced a bill for college-connected, nationally-funded stations in 1882. Carpenter told Atherton he never anticipated success for the measure, but introduced it primarily as a rallying point for further agitation. Curiously, as if unaware of the decades of experimentation in Europe and more recently in the United States, Carpenter asked Atherton why scientists neglected

agriculture while industrial enterprises profited from scientific inquiry. Actually, Carpenter had been prompted to introduce the measure by its author, Seaman Knapp, then a professor of agriculture at Iowa Agricultural College. Like Atherton, Knapp decided to aim for federally-funded stations when his bid to the Iowa legislature stalled. A former agricultural editor who believed system rather than science could improve farming, Knapp's Congressional bill established stations "in connection with" the colleges, annexed "improved farms" to them, and directed the Commissioner of Agriculture to supervise their activities. Preoccupied with measures to upgrade the Department of Agriculture to cabinet rank, Congress let the bill die without a hearing in committee.⁴⁴

When the forty-eighth Congress convened in December, 1883, Atherton met with the Iowa representative who had unseated Carpenter, Adoniram J. Holmes. Holmes had already introduced a slightly modified version of the Carpenter bill at the urging of the persistent Knapp.⁴⁵ "After a very thorough examination," Atherton later recalled, "I decided [it] was altogether ineffective and unworkable."⁴⁶ Unaware of Knapp's hand in writing the bill, Atherton hesitated to inform Holmes of the many revisions that were needed. But the affable Holmes, apparently interested in any revisions necessary to secure the legislation, welcomed a total overhaul if necessary. Holmes then invited Atherton to present his views before members of the House Committee on Agriculture, who were considering the Holmes Bill. Criticizing the bill's features and offering his informed views, Atherton impressed the committee. They asked the college president to draft a revised station bill incorporating his suggestions.⁴⁷

So Atherton went to work crafting legislation suitable to land-grant educators. He substantially altered the Holmes bill, leaving intact only one section on the type of experiments appropriate for agricultural experiment stations. Atherton later admitted to Whitman Jordan, "I changed the title and the substance so completely that all the distinctive provisions of the act as finally passed were my own, and nothing of the original bill was retained except a few general provisions."⁴⁸ His framework provided for the establishment of stations only at colleges benefitting from the Morrill Act. Funding remained the same, at \$15,000, but stations were brought under the aegis of colleges as departments, not simply "connected" to them. A significant revision addressed promoting scientific investigation and experimentation, whereas Holmes's bill only called for dissemination of agricultural information. Atherton's most extreme revision completely eliminated the Commissioner of Agriculture's power to meddle in station affairs. Atherton placed the stations under the direction and control of college trustees and designated state governors as recipients of annual station reports. The Commissioner of Agriculture played a minor role in furnishing forms and suggesting research projects if necessary. Clearly appealing to opponents of federal authority, Atherton's version expressly stated "nothing herein contained shall be construed to authorize said Commissioner to control or



Penn State's Agricultural Experiment Station in 1890, constructed after passage of the Hatch Act.

direct the work or management of any such station." Although the measure provided federal funding directly to college trustees, thus skirting state legislatures, it stated "nothing in this act shall be construed to impair or modify the legal relation existing between any of the said colleges and the government of the states in which they are respectively located."⁴⁹

Early in 1884 Atherton again appeared before the House agricultural committee and submitted his remodeled legislation. Referred to a subcommittee chaired by Illinois representative William Cullen, the bill passed back untouched to the whole agricultural committee, where it stalled.⁵⁰ Holmes wrote to Atherton late in March that committee members "have been instructed, I think, not to report the bill favorably."⁵¹ Probably members were edgy from a House resolution introduced the month before calling for another Congressional inquiry "into the working and management" of land-grant institutions.⁵² However grudgingly, committee members approved the bill and Cullen introduced it before the whole House as H.R. 7498 on July 2, 1884. The bill's accompanying report argued that the legislation provided for experimentation germane to local agricultural conditions but united in a national system. It did not neglect to mention the good sense and efficiency of appending stations to the land-grant

colleges, where existing facilities and personnel could be employed.⁵³ In a lobbying circular Atherton distributed to Congressional representatives shortly after the bill's introduction, he pointed to the utility of a college-station partnership. Here was the concept of education applied to real-life. "It brings learning and work fairly in connection," he wrote, "and meets a pressing demand of the age."⁵⁴ As resolutely as Atherton pushed the measure, it failed to surface for debate again in the forty-eighth Congress due to backlash from the investigation resolution.⁵⁵

For Atherton, securing the legislation must have been a major trial.⁵⁶ Success required a labyrinthine process of approval from station proponents, pressure from House and Senate agricultural committee chairs, and then action by the full Congress. Atherton busied himself lobbying for the legislation during the winter of 1885 and mailing circulars seeking Congressional supporters.⁵⁷ A colleague remembered that Atherton the lobbyist "had a certain charm and a compelling personality redolent of sincerity that swung men to him."⁵⁸ His efforts succeeded. Even though Congress failed to provide the bill a hearing, eight agricultural colleges submitted petitions urging Congress to pass the Cullen bill, evidence of swelling support for it.⁵⁹

A new lease on national station legislation arrived with the Cleveland administration's appointment of Norman J. Colman as Commissioner of Agriculture. An agricultural editor, state agricultural board member, and trustee of the University of Missouri, Colman empathized with the land-grant colleges' plight.⁶⁰ He immediately called state agricultural college representatives to a two-day convention devoted chiefly to a discussion of experiment stations and their relation to the Department of Agriculture. The gathering proved pivotal to the land-grant movement.

Meeting at the department in the swelter of a Washington July, the convention drew seventy-seven delegates from twenty-eight states and three territories. Colman addressed the interests of the audience in his welcoming speech. "There is nothing which will attract and rivet the attention of the great agricultural public to our agricultural colleges as experimental work," he said, "because farmers will hope and expect to be benefited pecuniarily by work of this character." Further, he hoped the agricultural colleges could be forged into "the experimental grounds of this department."⁶¹ A variety of land-grant college concerns, ranging from experiment stations to the meaning of public higher education highlighted the two-day proceedings. Atherton, appointed to the committee on order of business and resolutions, steered discussion toward problems facing college presidents. He had grasped the gathering's potential to serve a broader purpose than consideration of agricultural matters, and the thought of forming a permanent organization of land-grant educators had occurred to him.⁶² Seaman Knapp, concerned with provisions of his Holmes bill,

brought up the issue of "how can we cooperate with the Department of Agriculture in carrying on this experimental work?" Atherton, who had practically removed the college-department union from the revised bill, quickly responded "I do not regard that question as the only one which we are to discuss." Instead, he said, delegates should pursue a more fundamental issue: "How shall we make the institutions of which we are the representatives do their work in a manner which shall be acceptable to the people who sustain them?" Knapp and Atherton held mutually antagonistic assumptions about land-grant education. In a paper submitted to the convention, Knapp complained that land-grant colleges had relinquished their agricultural mission to broader educational goals.⁶³

Significantly, other members appointed along with Atherton to the committee on order of business and resolutions were college presidents, not station directors or agricultural professors. That ensured the college interests a voice in the proceedings. One of the first resolutions engineered by the committee urged passage of a resolution backing Atherton's Cullen bill. It passed unanimously. Next, the committee recommended that Commissioner of Agriculture Colman, the convention chair, appoint a committee of three to lobby for the Cullen bill. Not surprisingly, Atherton received one of the appointments. Atherton also was asked to chair the convention's executive committee. The convention empowered the executive committee to schedule the assembly's next meeting as well as plan for its permanent organization. Atherton's reputation and businesslike demeanor had evidently impressed other delegates. He emerged as the assemblage's most conspicuous figure. In addition to capturing all crucial appointments, Atherton received endorsement for his Cullen measure and the convention's backing to lobby for it.⁶⁴

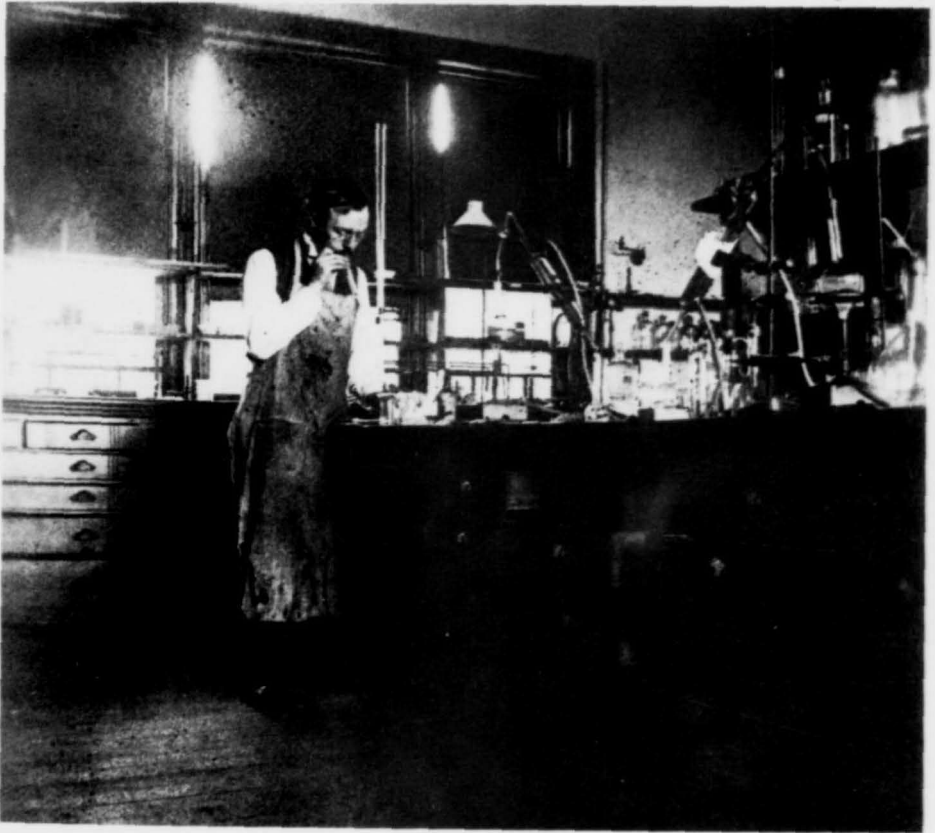
Now officially charged to press the Cullen bill, Atherton asked Missouri's Representative William H. Hatch, chairman of the House agricultural committee, to sponsor it in the new Congress. Atherton realized that Hatch's influence could go far toward clinching the measure. He and his legislative committee spread the word that the bill now would be labeled "the Hatch Act."⁶⁵ Although, according to Atherton, Hatch did not have "the remotest notion of what was meant by an 'Agricultural Experiment Station'," the ex-Confederate colonel assured Atherton he would see to the bill's passage.⁶⁶ Hatch introduced the measure as H.R. 2933 alongside eight other agricultural experiment station bills when the forty-ninth Congress convened in January, 1886. Before the Christmas recess, the Cullen bill had been introduced in the Senate as S372 by James Z. George of Mississippi.⁶⁷

All House bills were tabled in the agricultural committee with the exception of Atherton's, which emerged from committee on March 3, 1886. In writing the bill's accompanying eight-page report, Atherton underscored his view that "experimental work is only an incidental part" of the land-grant colleges'

mission. "Their work cannot be restricted to agriculture," he asserted. To mollify state's rights advocates, Atherton pointed out that the measure's provisions called for federal-state relations already in operation through the Morrill Act. "It only proposes to give practical direction to agencies which Congress has created," he wrote.⁶⁸ In a letter written three weeks after the bill's introduction, Cornell University President Charles Kendall Adams warned Atherton of Congressional apathy toward the measure. Adams advised him to "ascertain when the discussion is likely to take place, and then you should be on the ground."⁶⁹

By mid-April, the Senate agricultural and forestry committee had favorably reported the Cullen bill. But the session ended with little consideration of the measure. Debate on the bill began immediately on the opening of the forty-ninth Congress's second session in January, 1887. Some, however, had reservations about certain features of the bill, particularly its threat of federal encroachment into state affairs. Much debate centered on section four of the bill, regarding the Commissioner of Agriculture's duty to determine a standard of value for commercial fertilizer ingredients. Senator George Edmunds rose with a substi-

Courtesy of The Pennsylvania State University Archives.



Researcher C.A. Browne at work in Penn State's Agricultural Experiment Station, 1897.

tute provided from "the gentlemen who have devoted special attention to this subject, including and chief among whom is Dr. Atherton."⁷⁰ Rather than accept Atherton's substitute, the Senate eliminated the section completely. The Senate also accepted a major revision promoted by the National Grange, which contended that the land-grant colleges were overrated. The revisions, damaging to Atherton's college-station partnership, provided the states discretion to use funds for stations separate from the land-grant colleges. Atherton's legislative committee had attempted unsuccessfully to hammer out a compromise with the Grangers. In the end, the Atherton forces acceded to Grange power and relinquished the station control issue.⁷¹ Atherton's colleague, President Edwin Willits of Michigan Agricultural College, observed: "in the three days discussion in the Senate, the whole bill was sadly mutilated, not from intent, but from a desire to harmonize conflicting demands."⁷² Actually, the bill still contained most of Atherton's original provisions. Its fundamental revision occurred when Senators swept away Atherton's intention to annex all agricultural experiment stations to land-grant colleges. Two days later, the House Committee on Agriculture took up the bill. In the interest of expediency the committee accepted it as a substitute for the House measure, and reported it back favorably February 2. After final passage in the House February 25, Atherton visited the White House and explained the bill to President Grover Cleveland, who signed it on March 2, 1887.⁷³

The following October, Atherton assembled the first meeting of the "Association of American Agricultural Colleges and Experiment Stations" as he had been charged during the 1885 agriculturist convention. It represented the first formal organization of land-grant educators, and owed its founding largely to its members' united battle for the Hatch Act.⁷⁴ In the invitations for its charter meeting, Atherton noted that the organization's purpose was to discuss the Hatch Act and "secure concert of action respecting further legislation."⁷⁵ Atherton wrote the association's constitution and served as its president for two terms.⁷⁶ In 1889, members of the executive committee approached President Benjamin Harrison and recommended Atherton for the recently created Secretaryship of Agriculture.⁷⁷ The following year, Atherton mounted "a protracted and exacting legislative campaign," as he put it, to secure passage of the Second Morrill Act.⁷⁸ Among other important provisions, the act placed land-grant colleges on a solid foundation by providing annual federal appropriations for all college programs, not simply agriculture. "Some day we will build a monument to you," a colleague from Ohio State wrote to Atherton following the act's passage.⁷⁹ Between the Second Morrill Act and the Hatch Act, the land-grant system's future was secured.⁸⁰ *The Farm Journal* noted in 1891 that "Dr. Atherton has had a more active part in the recent legislation favorable to the 'land-grant' colleges than any other man outside of Congress."⁸¹ Two years before his death

in 1906, Atherton assisted in drafting the Adams Act, which doubled the Hatch Act's appropriations to agricultural experiment stations.⁸²

George Washington Atherton spent over three years of his career as the driving force behind the Hatch Act. Although he admitted a national system of agricultural experiment stations eventually would have materialized without his assistance, "the manner and time of their coming," he wrote, "I know to have been largely attributable to my own action."⁸³ As the individual who engendered, nurtured, and steered to passage the bill that finally succeeded, Atherton is entitled to credit as the legislation's "father." But Atherton's interest in obtaining federally funded experiment stations lay not with scientific research. Agricultural experiment stations interested him only insofar as they could promote his broader concept of land-grant education. The legislation meant more financing for land-grant colleges, directly from the act's provisions and indirectly as a result of increased attention from legislators. Atherton championed the measure as a device to promote his ideas on democratic public higher education. He was vindicated by history. Although it would take the Second Morrill Act's broad-based financial support to buttress the land-grant system, the Hatch Act stamped the imprimatur of the federal government on land-grant colleges. It guaranteed their permanence on the educational landscape. The act also sounded a tocsin for the coming preeminence of agricultural science in the farm enterprise. After the Hatch Act, the agricultural curriculum switched its focus from training farmers to educating scientists who could train farmers.

Ironically, the Hatch Act's promise of science as a remedy to the "farm problem" eventually proved anathema to the small farmers it intended to succor. Although agricultural research has helped produce American abundance, its continual drive toward efficiency has promoted agribusiness and helped destroy small farming as a way of life.⁸⁴

Notes

1. George Washington Atherton, "Memoranda as to George W. Atherton," George Washington Atherton Papers, Penn State Room, Pattee Library, Penn State University, University Park, Pennsylvania, Box 1, Folder A, p. 2.
2. Fred Lewis Pattee, *Penn State Yankee* (State College, Pennsylvania: The Pennsylvania State College, 1953), p. 151.
3. Pennsylvania, *Vetoed, Bills Returned to the Legislature by the Governor, With His Objections Thereto, During Its Regular Session, Ending on June 13, 1883* (Harrisburg, Pennsylvania: Lane S. Hart, State Printer, 1883), p. 118.
4. Atherton, "Memoranda," p. 2.
5. Michael Bezilla, *The College of Agriculture at Penn State* (University Park, Pennsylvania: Penn State University Press, 1987), p. 47; Edward D. Eddy, *Colleges for Our Land and Time: The Land-Grant Idea in American Education* (New York: Harper & Brothers, 1957), pp. 99-100; George N. Rainsford, *Congress and Higher Education in the Nineteenth Century* (Knoxville, Tennessee: University of Tennessee Press,

- 1972), pp. 120-121; Frederick Rudolph, *The American College and University: A History* (New York: Vintage Books, 1962), p. 261.
6. Roger L. Williams, "George W. Atherton and the Beginnings of Federal Support for Higher Education" (Ph.D. diss., The Pennsylvania State University, 1988), p. 108.
7. *National Cyclopedia of American Biography* (New York: James T. White, 1898-), 20: 486-487.
8. *Dictionary of American Biography* (New York: Charles Scribner's Sons, 1928), I: 404-405.
9. Williams, "George W. Atherton," pp. 169-233.
10. Of the two salient land-grant histories, Earle D. Ross's *Democracy's College: The Land-Grant College in the Formative Stage* (Ames: Iowa State University Press, 1942), pp. 139-140, attributes the Hatch Act to Commissioner of Agriculture Norman J. Colman and "college presidents," whereas Edward D. Eddy's *Colleges for Our Land and Time: The Land-Grant Idea in American Education* (New York: Harper & Brothers, 1957) maintains Representative William H. Hatch clinched the measure despite contradictory evidence in the Atherton papers (pp. 96-97). Allan Nevins's historical essay *The State Universities and Democracy* (Urbana: University of Illinois Press, 1962), contrary to Atherton's assertion, acknowledges Professor Seaman Knapp as the legislation's author (p. 68). Agricultural science histories such as Alan I. Marcus's *Agricultural Science and the Quest for Legitimacy* (Ames: Iowa State University Press, 1985), pp. 185-216, and Alfred C. True's *A History of Agricultural Experimentation and Research in the United States* (Washington, D.C.: GPO, 1937), pp. 118-130, subsume Atherton's role within the collective activity of other college presidents. Likewise, H.C. Knoblauch, E.M. Law, and W.P. Meyer's *State Agricultural Experiment Stations* (Washington: GPO, 1962), pp. 59-63, mentions Atherton but fails to acknowledge his pivotal role in writing and shepherding the bill to passage. Norwood Kerr's *The Legacy: A Centennial History of the State Agricultural Experiment Stations* (Columbia, Missouri: Missouri Agricultural Experiment Station, 1987), pp. 18-20, neglects Atherton's involvement with the Hatch Act altogether.
11. Williams, "George Washington Atherton," pp. 3-18, 169-170, 391-405.
12. GWA to Charles F. Mills, October 27, 1903, Box 7, Folder M, GWA Papers.
13. Henry Prentiss Armsby, "Memorial to President George W. Atherton," Box 1, Folder A, GWA Papers; Wayland Fuller Dunaway, *History of the Pennsylvania State College* (The Pennsylvania State College, 1949), pp. 114-115; Bezilla, *The College of Agriculture*, p. 42; Atherton, "Memoranda," p. 1.
14. Williams, "George W. Atherton," pp. 116-117.
15. Circular from GWA, February 25, 1874, Box 2, Folder M, GWA Papers.
16. Typeset Letter and Accompanying Survey Form, Box 2, Folder B, GWA Papers; Erwin Runkle, "President George W. Atherton," Box 1, Folder A, GWA Papers; Atherton, "Memoranda," p. 9.
17. Williams, "George Washington Atherton," pp. 117-119. These offers were presented by Arkansas Industrial University, Howard University, and the University of Missouri. Daniel Coit Gilman also offered Atherton a position on the University of California's faculty. *Ibid.* Correspondence in Box 2, Folder M, GWA Papers indicates that Atherton served as a lobbyist for land-grant institutions during the 1870s.
18. Williams, "George W. Atherton," pp. 126-128.
19. Reprint from the *New Brunswick Freonian*, August 23, 1873, Box 7, Folder M, GWA Papers.
20. George W. Atherton, "Relation of the General Government to Education," *Paper Read Before the National Teachers Association at Elmira, New York, August 6, 1873* (New York: J.W. Schermerthorn, 1873), pp. 7, 9. See George W. Atherton, "Public Education Under a Republican System of Government," *Pennsylvania School Journal* 47 (August, 1898): 79-82.
21. J.S. Morrill to C.W. Slough, January 22,

- 1878, Box 2, Folder G, GWA Papers; Dunaway, *Pennsylvania State College*, p. 113.
22. Dunaway, *Pennsylvania State College*, pp. 120-121.
23. Armsby, "Memorial," pp. 33-34.
24. Runkle, "Atherton," p. 20.
25. Williams, "George W. Atherton," pp. 108-109.
26. D.A.B. 1:404; D.F. Wells, "George Washington Atherton '58," *Bulletin of the Phillips Exeter Academy* 2 (September, 1906): 39-41; Armsby, "Memorial," p. 32; "George Washington Atherton" [1910?], Box 1, Folder A, GWA Papers.
27. Annual Report of the Pennsylvania State Dairymen's Association, 1887, in *Pennsylvania State Board of Agriculture Annual Report* (Harrisburg, Pennsylvania: Edwin K. Myers), p. 35.
28. Dorothy C. Goodwin, "A Brief Chronology of American Agricultural History," In *Farmers in a Changing World, Yearbook of Agriculture* (Washington, D.C.: GPO, 1940), p. 52; George H. Calcott, *History of the University of Maryland* (Baltimore: Maryland Historical Society, 1966), p. 188; Marcus, *Agricultural Science*, pp. 3-6, 7-14; Eddy, *Colleges*, p. 48.
29. *Practical Farmer* 8 (June, 1871): 6.
30. Eddy, *Colleges*, pp. 56-57, 63, 66-67; Rudolph, *American College*, pp. 257-258.
31. George W. Atherton, "Notes on the History of the Pennsylvania State College," Box 1, Folder A, GWA Papers.
32. Henry Steele Commager, ed., *Documents of American History* (New York: Appleton Century Crofts, 1949), p. 413.
33. *New York Tribune*, August 22, 1873; Atherton, "Relation of the General Government," pp. 11-13; Atherton, "The Legislative Career of Justin Morrill," p. 18, Box 1, Folder A, GWA Papers. This is the text of the eulogy Atherton delivered at Morrill's funeral in 1898.
34. Atherton, "Justin Morrill," p. 22. In his "Memoranda," p. 9, Atherton recalled thinking thirty years earlier that the Morrill Act "was not only a measure of far-reaching wisdom as a means of promoting higher public education, but that it was peculiarly in keeping with the genius of our system of institutions."
35. Invitations, announcements, etc., Box 2, Folder B, GWA Papers.
36. Atherton, "Memoranda," p. 2; Paul E. Waggoner, "Research and Education in American Agriculture," *Agricultural History* 50 (January, 1976): 244; Marcus, *Agricultural Science*, p. 127; Eddy, *Democracy's College*, p. 75.
37. Eugene W. Hilgard, "Progress in Agriculture by Education and Government Aid," *Atlantic Monthly* 49 (April, 1882): 651.
38. H.P. Armsby, "Agricultural Experiment Stations," *Popular Science Monthly* 23 (September, 1883): 597-598; Rainsford, *Congress*, p. 116; Margaret W. Rossiter, *The Emergence of Agricultural Science* (New Haven: Yale University Press, 1975), p. 170; Kerr, *Legacy*, pp. 3-16; Marcus, *Agricultural Science*, pp. 59-60; Ross, *Democracy's College*, p. 138.
39. Quoted in Vernon Cartenson, "The Genesis of an American Agricultural Experiment Station," *Agricultural History* 34 (January, 1960): 18.
40. Bezilla, *College*, pp. 42-44.
41. Untitled manuscript by GWA, Box 5, Folder D, GWA Papers.
42. Proceedings of the Pennsylvania Board of Agriculture, In *Agriculture of Pennsylvania 1882* (Harrisburg: Edwin K. Myers, 1882), pp. 7, 9, 10.
43. Williams, "George W. Atherton," p. 177.
44. Circular from Seaman A. Knapp, "Experiment Stations," Box 5, Folder D, GWA Papers; Knoblauch, *State Experiment Stations*, p. 43; True, *History*, p. 120; Marcus, *Agricultural Science*, pp. 161, 172-173, 177.
45. *Congressional Record*, 48th Cong., 1st Sess., p. 73.
46. Atherton, "Memoranda," p. 3; GWA to Charles F. Mills, October 27, 1903, Box 7, Folder M, GWA Papers.
47. Atherton, "Memoranda," p. 3. No transcripts of Congressional committee hearings from that period are available.
48. GWA to Whitman Jordan, October 1, 1900, Box 7, Folder A, GWA Papers.
49. Congress, House, 48th Cong., 1st Sess., H.R. 7498, Box 7, Folder M, GWA Papers.

50. Atherton, "Memoranda," p. 4.
51. A.J. Holmes to GWA, March 25, 1884, Box 7, Folder M, GWA Papers.
52. *Congressional Record*, 48th Cong., 1st Sess., p. 1497.
53. Congress, House, 48th Congress, 1st Sess., Report 2034.
54. Circular [in pencil: July, 1884], Box 7, Folder H, GWA Papers.
55. Atherton, "Memoranda," p. 4. Several type-set circulars promoting the legislation are deposited in Boxes 5 and 7, GWA Papers.
56. *Ibid.*
57. *Ibid.*; True, *A History*, p. 205.
58. Pattee, *Penn State Yankee*, p. 151.
59. Marcus, *Agricultural Science*, pp. 186-187.
60. Knoblauch, *State Experiment Stations*, p. 48.
61. U.S. Department of Agriculture, *Proceedings of a Convention of Delegates from Agricultural Colleges and Experiment Stations Held at the Department of Agriculture July 8 and 9, 1885*, U.S. Department of Agriculture Special Misc. Report no. 9 (Washington, D.C.: GPO, 1885), pp. 3, 12.
62. Williams, "George W. Atherton," pp. 204-205.
63. *Proceedings of a Convention*, pp. 46-50, 66-67, 88, 90, 163.
64. *Ibid.*, pp. 24, 27, 42, 138-140.
65. Atherton, "Memoranda," p. 4.
66. GWA to Charles F. Mills, October 27, 1903, Box 7, Folder M, GWA Papers.
67. *Congressional Record*, 49th Cong., 1st Sess., pp. 424, 426, 430, 468, 473, 482, 524, 530.
68. Congress, House, 49th Cong., 1st Sess., Report 848, p. 8.
69. Charles Kendall Adams to GWA, March 25, 1886, Box 7, Folder H, GWA Papers.
70. *Congressional Record*, 49th Cong., 1st Sess., p. 721.
71. Marcus, *Agricultural Science*, p. 208.
72. Quoted in True, *A History*, p. 129.
73. GWA to Grover Cleveland, November 2, 1887, Grover Cleveland Papers [Microfilm], Library of Congress, Series 2, Reel 54.
74. *Proceedings of the First Annual Convention of the Association of American Agricultural Colleges and Experiment Stations, Washington, D.C., October 18-20, 1887* (n.p.: University of Missouri College of Agriculture Experiment Station, 1941), pp. 1-4.
75. Invitation from GWA, April 2, 1887, Box 2, Folder B, GWA Papers.
76. Atherton, "Memoranda," p. 1.
77. James A. Beaver to Benjamin Harrison, February 21, 1889, Box 7, Folder M, GWA Papers.
78. Atherton, "Memoranda," p. 6.
79. Quoted in Williams, "George W. Atherton," p. 10 (Alexis Cope to GWA, August 20, 1890, Box 7, Folder C, GWA Papers).
80. *Ibid.*, pp. 246-247, 265-295.
81. Quoted in *Ibid.*, p. 108 (December, 1891, Box 13, Folder D, GWA Papers).
82. *Ibid.*, pp. 332-341.
83. Atherton, "Memoranda," p. 5. Of his many accomplishments in charting early land-grant college direction, Atherton was most proud of his role in writing the Hatch Act. Just three days after the act's passage, in an angry letter fired off to Herbert Myrick, an agricultural editor, Atherton took umbrage at Myrick's mistaken attribution of leadership in the project. Atherton explained that Hatch, termed the "father" of the act by Myrick, "had no hand whatever in preparing or introducing it." Atherton asked "is no credit due to those who had organized support for it in every state of the Union?" (March 5, 1887, Box 7, Folder H, GWA Papers). Letters in the Atherton collection from other educators who pressed the measure also suggest that Hatch was a reluctant warrior during the struggle (Charles Kendall Adams to GWA, March 25, 1886; Henry E. Alvord to GWA, July 6 and 27, 1886, Box 7, Folder A, GWA Papers). Seaman Knapp, labeled "father" of the act by some historians, actually appears to have accomplished little in securing the legislation other than initiating a national agricultural experiment station bill. Even when Atherton had completely rewritten the Holmes bill with the blessing of other land-grant educators, Knapp attempted to push

the original bill which Atherton termed "unworkable." Near the end of his life, Atherton wrote of the Iowan that "after passage of the bill was secured [Knapp] claimed that he had personally done substantially those things which I have done by myself. As to that, I have only to say that I never knew Professor Knapp in the matter from the beginning to the end of the affair" ("Memoranda," p. 6). Certainly the two educators confronted each other after Atherton finished revamping Knapp's Holmes bill. As the proceedings of the 1885 agriculturist convention indicate, both men served on two convention committees and Atherton even appointed Knapp to one of them. Perhaps Atherton's statement reflects frustration that

the muse of history credited another for what he considered his life's greatest accomplishment. Maybe Atherton still smoldered from Knapp's narrow interpretation of land-grant education. Or he simply might have been expressing Knapp's lack of involvement in promoting the rewritten bill. In any event, not one shred of correspondence from Seaman A. Knapp rests among the voluminous Atherton papers.

84. Herbert London, "Ruling By California Judge Casts a Cloud Over All Agricultural Research," *Chronicle of Higher Education* 34 (March 16, 1988): B1; see also Marcus, *Agricultural Science*, pp. 220-221; Kerr, *The Legacy*, vii.