

Institutional Limits: Christine Ladd-Franklin, Fellowships, and American Women's Academic Careers, 1880–1920

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Christine Ladd-Franklin spent the first forty years of her life becoming one of the best-educated women in nineteenth-century America. She spent the rest of her life devising fellowship programs designed to enable educated women to have the same opportunities as men in their academic careers. “What law of nature is it,” Ladd-Franklin wondered in 1890, “that says that it is fitting for women to be the teachers of young persons of both sexes in preparatory schools, but that it is not fitting that they should teach young persons in college?” This supposed “law” hurt not only women who were qualified to be professors, like the scientist and mathematician Ladd-Franklin, but also the larger number of college-educated American women who turned to teaching in primary and secondary schools after graduation. As Ladd-Franklin explained, the difficulty women had in becoming professors had a profound effect on women who taught at lower levels. Because women were “thought to be not worthy of being college professors,” it was “impossible for them to receive equal pay with men in the secondary schools.”¹ The solution to the problem of inequality in schools and colleges, Ladd-Franklin believed, lay in proving that individual women could perform as well as men; this “entering wedge” would prop open the door for future women.² But as Ladd-Franklin’s life and work show, there were limits to a strategy that focused on individuals in institutions.

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¹ Christine Ladd-Franklin, “The Usefulness of Fellowships,” *Publications of the Association of Collegiate Alumnae* 2, no. 31 (1890): 3–4.

² For a specific use of “entering wedge,” see Christine Ladd-Franklin, “Report of the Committee on the Endowment of Fellowships,” *Publications of the Association of Collegiate Alumnae* 3, no. 17 (1908): 143–46.

Indeed, the German-influenced structure of higher education in America, combined with male prejudice and changing gender roles in the early twentieth century, continued to keep women out of professorships until well after World War II.

The “German model” of higher education has actually referred to multiple models, ranging widely from the New Humanism brought to America by a group of Harvard graduates in the early nineteenth century to the social science that came with the German Jewish émigrés of the 1930s.³ From the 1850s to World War I, however, the German model meant one thing for Americans: research.⁴ During the century from 1738 to 1838, as the new institution of the research seminar developed at Göttingen and other German universities, the main work of students at those schools shifted from oral and erudite to written and original. Thus, the old disputation for a degree became by the early nineteenth century the doctoral dissertation, a written work of original research leading to a PhD. The position of the *Privatdozent*, generally the first step on the long climb to a professorship, played a central role in this broader institutional and intellectual shift. As unsalaried lecturers who relied on student fees for income, *Privatdozenten* allowed universities to expand at low cost, and the competition of *Privatdozenten* for students drove them toward specialization and originality.⁵ The German ideal of *Wissenschaft* continued to embrace both empirical research and general culture, but research increasingly took center stage.⁶

During the 1850s and 1860s, American men who studied in Germany latched onto the German emphasis on research and brought it back to the United States.⁷ For them, German *Wissenschaft* was

³Caroline Winterer, *The Culture of Classicism: Ancient Greece and Rome in American Intellectual Life, 1780–1910* (Baltimore, MD: Johns Hopkins University Press, 2002), 49–62; Anthony Heilbut, *Exiled in Paradise: German Refugee Artists and Intellectuals in America, from the 1930s to the Present* (New York: Viking, 1983), 72–100.

⁴Carl Diehl, *Americans and German Scholarship, 1770–1870* (New Haven, CT: Yale University Press, 1978); Laurence R. Veysey, *The Emergence of the American University* (Chicago: University of Chicago Press, 1965), 10, 125–33; Hermann Röhrs, *The Classical German Concept of the University and Its Influence on Higher Education in the United States* (Frankfurt: Peter Lang, 1995), 35–74.

⁵On the role of the *Privatdozent* in nineteenth-century German universities, see Alexander Busch, *Die Geschichte des Privatdozenten: Eine Soziologische Studie zur Großbetrieblichen Entwicklung der Deutschen Universitäten* (Stuttgart: Ferdinand Enke, 1959); R. Steven Turner, “The Growth of Professorial Research in Prussia, 1818 to 1848—Causes and Context,” *Historical Studies in the Physical Sciences* 3 (1971): 137–82; Turner, “The Prussian Universities and the Research Imperative, 1806 to 1848” (PhD dissertation, Princeton University, 1972), 363–67; and Charles E. McClelland, *State, Society, and University in Germany, 1700–1914* (Cambridge: Cambridge University Press, 1980), 165–68.

⁶William Clark, *Academic Charisma and the Origins of the Research University* (Chicago: University of Chicago Press, 2006), chap. 5–6.

⁷For American men who studied in Germany, see Veysey, *Emergence of the American University*, 10, 125–33; Diehl, *Americans and German Scholarship*, 1770–1870; and Röhrs,

basically equivalent to the manly pursuit of hard facts through laborious and detailed investigation in the natural and social sciences as well as the humanities. Scholars in fields from English to sociology to chemistry now tried to ground their disciplines in a scientific, empirical foundation. As American men who had studied in Germany enshrined their version of research at schools such as Johns Hopkins, which opened in 1876, graduate school increasingly became the training ground for the new breed of research-oriented professors. The doctorate became one's license to lecture.⁸ Along with research institutions came specialization and professionalization, with scholars of similar subjects banding together in academic departments and disciplinary organizations.⁹ These changes, which happened just as American women began to be able to attend a few women's and coeducational colleges, effectively erected new and higher barriers on top of the existing male prejudice and ideas about women's proper social role which had long restricted women's educational opportunities.¹⁰

Christine Ladd-Franklin, who was one of the first women to do graduate work at Johns Hopkins, hoped that educational ideas from Germany might be used to help, not just hinder, women in American higher education. Although German universities had a policy against admitting German women, a few institutions were known by the 1880s to be more lenient toward foreign women.¹¹ If American women could be educated at the same German universities at which American men

Classical German Concept, 35–102. Röhrs argues for a stronger absorption of German scholarship by the first generation, in the 1820s and 1830s.

⁸Veysey, *Emergence of the American University*, 121–79; Röhrs, *Classical German Concept*, 75–102.

⁹On departments, see Veysey, *Emergence of the American University*, 320–24; on professional scholarly organizations, see Robert H. Wiebe, *The Search for Order, 1877–1920* (New York: Hill and Wang, 1967), 121.

¹⁰James C. Albisetti, "German Influence on the Higher Education of American Women, 1865–1914," in *German Influences on Education in the United States to 1917*, eds. Henry Geitz, Jürgen Heideking, and Jürgen Herbst (Cambridge: Cambridge University Press, 1995), 227–44. For women's entry into American higher education in general, see Rosalind Rosenberg, *Beyond Separate Spheres: Intellectual Roots of Modern Feminism* (New Haven, CT: Yale University Press, 1982); Barbara M. Solomon, *In the Company of Educated Women: A History of Women and Higher Education in America* (New Haven, CT: Yale University Press, 1985); and Lynn D. Gordon, *Gender and Higher Education in the Progressive Era* (New Haven, CT: Yale University Press, 1990).

¹¹In fact, more Russian women than American women studied in Germany during this period. See Sandra Singer, *Adventures Abroad: North American Women at German-Speaking Universities, 1868–1915* (Westport, CT: Praeger, 2003), xiv–xvi, 15–22. On women in German higher education, see James C. Albisetti, *Schooling German Girls and Women: Secondary and Higher Education in the Nineteenth Century* (Princeton, NJ: Princeton University Press, 1988); Patricia M. Mazón, *Gender and the Modern Research University: The Admission of Women to German Higher Education, 1865–1914* (Stanford, CA: Stanford University Press, 2003); Katharina Rowold, *The Educated Woman: Minds, Bodies, and Women's Higher Education in Britain, Germany, and Spain, 1865–1914* (New York: Routledge, 2010), chap. 3–5.

had been studying for decades, Ladd-Franklin thought, men would no longer have any excuse for keeping women out of professorships. The women would return to America, become professors—at men's colleges and coeducational colleges as well as at women's colleges—and thus gradually erode the prejudice against women in the academy. To make that possible, Ladd-Franklin devised in the late 1880s a plan for a European Fellowship, which would pay for women to study in Europe, and in 1890 the Association of Collegiate Alumnae (ACA) began to fund the fellowship.¹²

During the 1890s, however, as more women went to graduate school and began to earn doctorates at home and abroad, professorships still were not opening up to them in the United States—at least not if they wanted to work at a major research university rather than at a women's college. Some of the luckier women, such as Ladd-Franklin, who did research in Germany during the 1890s, were able to obtain year-to-year lectureships, but many women with doctorates still ended up teaching in secondary schools.¹³

Confronted with conservative universities, Ladd-Franklin led the women of the ACA in advocating a shift in strategies. Just as the ACA had used fellowships to place women in German and American graduate schools, so, Ladd-Franklin argued in the early 1900s, the organization should use fellowships to place women on American university faculties. She used as her inspiration the German *Privatdozent*, which she interpreted as basically a postdoctoral research position, and conceived a plan for a moveable research and lecture fellowship for women at American universities.¹⁴ With the endowment of the Sarah Berliner Research Fellowship in 1907, Ladd-Franklin's plan became a reality, giving some women the chance to research and to teach at institutions such as Johns Hopkins, Columbia, and Cornell. But Ladd-Franklin had not taken into account the significant structural problems that

¹²Works on the American women who studied in Germany during this period include Margaret W. Rossiter, *Women Scientists in America: Struggles and Strategies to 1940* (Baltimore: Johns Hopkins University Press, 1982), chap. 2; Albisetti, *Schooling German Girls and Women*, 223–37; Albisetti, “German Influence”; Singer, *Adventures Abroad*; Anja Becker, “How Daring She Was! The ‘Female American Colony’ at Leipzig University, 1877–1914,” in *Taking Up Space: New Approaches to American History*, eds. Anke Ortlepp and Christoph Ribbat (Trier: Wissenschaftlicher Verlag Trier, 2004), 31–46. Rossiter has the best analysis of Ladd-Franklin's role in encouraging American women to study in Germany.

¹³Kate H. Claghorn, “The Problem of Occupation for College Women,” *Educational Review* 15 (March 1898), 217; Solomon, *In the Company of Educated Women*, 126–28.

¹⁴Margaret Rossiter has examined Ladd-Franklin's role in the ACA in her analysis of American women's strategic use of German universities in the push for entry to higher education, but Rossiter does not consider how American women's experiences in Germany altered their strategies. Rossiter, *Women Scientists in America*, chap. 2.

increasingly plagued the *Privatdozent* position in late nineteenth-century Germany, nor had she foreseen the changes in gender roles and in the nature of women's activism that took place in early twentieth-century America—both of which combined with continuing male prejudice to keep women in low-paying, temporary, or nonacademic positions in American universities. The professionalization of American higher education opened new opportunities for women, but it also allowed for the institutionalization of new forms of hierarchy and exclusion that would take decades to overcome.

“The Passion for Investigation”: German Influences on the Higher Education of American Women

The first wave of women's colleges opened in the third quarter of the nineteenth century, just as German ideas about higher education began to reshape American universities.¹⁵ Christine Ladd-Franklin, born in Windsor, Connecticut, in 1847, and valedictorian of the coeducational Welshing Academy in 1865, was a member of the first generation to attend these women's institutions.¹⁶ After studying under the astronomer Maria Mitchell, Ladd-Franklin received her degree from Vassar College in 1869.¹⁷ Though Vassar and other early women's colleges were not as rigorous or as research oriented as many men's colleges, some students, such as Ladd-Franklin, fell under the influence of professors who conducted original research.¹⁸ (A student “will show a far greater zeal”

¹⁵ Solomon, *In the Company of Educated Women*, 14–26, 47.

¹⁶ Elizabeth Scarborough and Laurel Furumoto, *Untold Lives: The First Generation of American Women Psychologists* (New York: Columbia University Press, 1987), 109–29; and Furumoto, “Joining Separate Spheres—Christine Ladd-Franklin, Woman-Scientist (1847–1930),” *American Psychologist* 47 (1992): 175–82.

¹⁷ Furumoto, “Joining Separate Spheres,” 176. Maria Mitchell discovered a comet in 1847 and worked in astronomical research for the U.S. Navy's *Nautical Almanac* before becoming a professor at Vassar. Like Ladd-Franklin, Mitchell spent much of her life working for women's equality in the academy. See Renée Bergland, *Maria Mitchell and the Sexing of Science: An Astronomer among the American Romantics* (Boston: Beacon, 2008).

¹⁸ Ladd-Franklin later recalled her general disappointment with what she found at Vassar: “a lot of gay young girls trooping through sunlit halls, not to be distinguished in appearance from the girl of the boarding-school.” Christine Ladd-Franklin, undated handwritten notes [1896?], Box 18, Christine Ladd-Franklin and Fabian Franklin Papers, Rare Book & Manuscript Library, Columbia University in the City of New York (hereafter cited as CLF-FF Papers). On the start of Vassar, see Helen L. Horowitz, *Alma Mater: Design and Experience in the Women's Colleges from Their Nineteenth-Century Beginnings to the 1930s* (New York: Alfred A. Knopf, 1984), chap. 2. For European views of Vassar, which roughly correspond with those of Ladd-Franklin, see James C. Albisetti, “American Women's Colleges through European Eyes, 1865–1914,” *History of Education Quarterly* 32 (1992): 439–58; Albisetti, “Un-learned Lessons from the New World? English Views of American Coeducation and Women's Colleges, c. 1865–1910,” *History of Education* 29 (2000): 485–88.

in his studies, Ladd-Franklin later wrote, if “you set his imagination on fire by putting him into the daily presence of some one who is himself inspired with the passion for investigation.”¹⁹) Upon graduation, however, these students found that graduate schools at which they could pursue their own research did not yet exist for women in the United States. Though a few women, including Ladd-Franklin, attended graduate school through unofficial channels, most were being left behind as research became the main means of academic advancement.

As more and more women graduated from women’s and coeducational colleges throughout the 1870s, they confronted the question of how best to put their educations to use. Because of the new German-influenced emphasis on research and doctorates in American higher education, a college degree no longer served as an easy ticket to a professorship, even for men. About half of all women graduates taught elementary or secondary school for at least a few years; after completing her degree at Vassar, Ladd-Franklin spent most of the 1870s teaching at a variety of schools in Massachusetts, New York, and Pennsylvania.²⁰ Alumnae such as Ladd-Franklin formed a natural interest group for ensuring women’s continued access to higher education and increasing the opportunities available to women with college degrees. In January 1882, several dozen young alumnae in Boston joined together to form the ACA, assigning it the tasks of doing “practical educational work,” collecting and publishing statistical information about education, and helping to maintain “high standards of education.”²¹

The major work of the ACA during its earliest years focused on disproving the theory, advanced most famously by Edward Clarke in his 1873 book *Sex in Education*, that higher education harmed women’s supposedly fragile bodies and brains.²² The group also began almost immediately to investigate and promote graduate opportunities for women.²³ Four months after the ACA’s establishment, when its members gathered

¹⁹Christine Ladd-Franklin, undated handwritten notes [1896?], Box 18, CLF-FF Papers.

²⁰Claghorn, “The Problem of Occupation for College Women,” 217; Scarborough and Furumoto, *Untold Lives*, 121.

²¹Susan Levine, *Degrees of Equality: The American Association of University Women and the Challenge of Twentieth-Century Feminism* (Philadelphia: Temple University Press, 1995), 6–7; Margaret E. Maltby, ed., *History of the Fellowships Awarded by the American Association of University Women, 1888–1929, with the Vitas of the Fellows* (Washington, DC: American Association of University Women, 1929), 3.

²²Sue Zschoche, “Dr. Clarke Revisited: Science, True Womanhood, and Female Collegiate Education,” *History of Education Quarterly* 29 (1989): 545–69; and Rosenberg, *Beyond Separate Spheres*, 18–27. For Clarke’s book, see Edward H. Clarke, *Sex in Education; Or, a Fair Chance for the Girls* (Boston: James R. Osgood, 1873).

²³See Jane Bashford’s comments in Minutes of the ACA, 14 January 1882, in *American Association of University Women Archives, 1881–1976* (Sanford, NC: Microfilming Corp. of America, 1980), reel 4, section II:1. (Hereafter cited as *AAUW Archives*.)

on a gloomy Saturday afternoon in May 1882, Helen Magill presented a paper on "Opportunities for Post-Graduate Study." Magill had been a member of Swarthmore's first graduating class, in 1873, as well as the first woman to earn a doctorate in the United States, taking her PhD in Greek at Boston University in 1877. Magill then spent four years studying for the classical tripos at Cambridge University, from which she had recently returned.²⁴ Although the English universities at Oxford, Cambridge, and London now offered limited options for women, Magill said, many graduate departments in the United States admitted only men.²⁵ "What can we do which will go farthest toward opening these and all other universities?" Magill asked. "I will give you three answers. In the first place, improve our scholarship; in the second place, improve our scholarship; and, again, improve our scholarship." After that rousing call, the Association voted to form a committee on graduate work, which was charged with "finding by correspondence what professors of what universities will map out a course of study and direct the work of those who wish to enter upon it."²⁶

Magill believed that the best way for women to gain access to opportunities for graduate education was to prove that they were capable of doing the same level of academic work as men. In fact, some women were already attempting to do so at Johns Hopkins, the German-influenced institution that set the standard for all other American universities at the time. In 1877, the Hopkins trustees allowed M. Carey Thomas to study privately with any professor who would agree to help her, though they prohibited her from attending graduate seminars. Thomas worked for a year with the classicist Basil Gildersleeve, who had received his doctorate from Göttingen in 1853. She found the isolation of her arrangement difficult to handle, however, and withdrew from the university in October 1878.²⁷

²⁴Magill earned only a "third" on the Cambridge classical tripos, but she was the first American woman to pass the exams. Glenn C. Altschuler, *Better Than Second Best: Love and Work in the Life of Helen Magill* (Urbana and Chicago: University of Illinois Press, 1990), 44–58.

²⁵On the opportunities available to women at Oxford, Cambridge, and other English universities in the late nineteenth century, see Pauline Adams, *Somerville for Women: An Oxford College, 1879–1993* (Oxford: Oxford University Press, 1996); Rita McWilliams Tullberg, *Women at Cambridge*, rev. ed. (Cambridge: Cambridge University Press, 1998); and Judy G. Batson, *Her Oxford* (Nashville, TN: Vanderbilt University Press, 2008). For English debates about the higher education of women, see Rowold, *Educated Woman*, chap. 1–2.

²⁶"Collegiate Alumnae," *Boston Globe*, 14 May 1882, *AAUW Archives*, reel 6, section II:63; "The Collegiate Alumnae," *Boston Advertiser*, 16 May 1882, *AAUW Archives*, reel 6, section II:63; "[Untitled]," *Zion's Herald*, 17 May 1882, *AAUW Archives*, reel 6, section II:63.

²⁷Helen L. Horowitz, *The Power and Passion of M. Carey Thomas* (New York: Alfred A. Knopf, 1994), 74–75, 89–90, 98.

Christine Ladd-Franklin arrived in Baltimore that same autumn to begin her own graduate work at Hopkins. She had received a special dispensation from the board of trustees allowing her to attend the mathematician James J. Sylvester's lectures. The catch, however, was that her name would not be added to the university's annual register.²⁸ Because Ladd-Franklin's name was not listed on the register, she did not count as an enrolled student; she set no official precedent for the future admission of women; and she could not receive the doctorate that was rightfully hers after four years of study and the publication of an influential thesis—included in a volume edited by Charles Peirce, and praised highly by Josiah Royce—describing how any valid syllogism could be reduced to a single formula.²⁹ Thus, in the spring of 1882, just as Helen Magill was telling the ACA that better scholarship by women would open American graduate schools to them, Ladd-Franklin confronted the limitations of that strategy.

The First “Entering Wedge”: American Women at German Universities

By the late 1880s, some women, including Christine Ladd-Franklin, began to envision new possibilities for ACA activity. College-educated women in the United States, like their male counterparts, learned of the importance of research to academic work and of the centrality of German universities to the research ideal. As Helen Backus told an 1889 meeting of the ACA, “The noticeable feature of our college world to-day is the wide-spread and constant recognition of foreign scholastic influences, especially those of the German gymnasium and university.” Many American men, Backus continued, “have followed post-graduate courses abroad, and entered professorships and instructorships at home with consequent prestige. Naturally they incline strongly toward the methods of their foreign training.”³⁰ If American women wanted to

²⁸Daniel Coit Gilman to Christine Ladd, 26 April 1878, Box 4, CLF-FF Papers. Universities kept many women off enrollment lists in order to avoid setting any precedents for the admission of women. For the case of M. Carey Thomas at Johns Hopkins, see *The Making of a Feminist: Early Journals and Letters of M. Carey Thomas*, ed. Marjorie H. Dobkin (Kent, OH: Kent State University Press, 1979), 149–50.

²⁹Royce told his students, “It is rather remarkable that the crowning activity in a field worked over since the days of Aristotle should be the achievement of an American woman.” “Professor Royce on an American Woman's Work,” *New York Evening Post*, n.d., Box 14, CLF-FF Papers. For the thesis itself, see Christine Ladd, “On the Algebra of Logic,” in *Studies in Logic*, ed. Charles S. Peirce (Boston: Little, Brown, 1883), 17–71. For a brief exposition of Ladd-Franklin's concept of the “antilogism,” see Eugene Shen, “The Ladd-Franklin Formula in Logic: The Antilogism,” *Mind* 36 (1927): 54–60.

³⁰Helen H. Backus, “Some Recent Phases in the Development of American Colleges,” *Publications of the Association of Collegiate Alumnae* 2, no. 17 (1889): 5–6.

advance in the academy, German doctorates would allow them to show that they had the same intelligence and talent in research as the men who were already professors.

A combination of factors caused American women to look increasingly toward European universities by the late 1880s. For one thing, American graduate schools remained unwilling to open their doors to women. Only twenty-five women earned doctorates at American universities before 1890. Though some of these degrees came at Cornell and Pennsylvania, women generally were not admitted on an equal basis with men at the graduate schools of most of the major East Coast institutions.³¹ At Johns Hopkins, America's most highly regarded school for graduate study, Thomas and Ladd-Franklin had learned that women were discouraged from attending and then were denied their degrees.³²

But even the top American schools could not match their German counterparts in prestige in the 1880s. As a professor at Clark University told one of his students in 1892, "I don't think that my J[ohns] H[opkins] U[niversity] Ph.D. is quite so impressive to the average person in authority as a Leipzig one would be."³³ American men had been studying in Germany for several generations, and now that they were remaking American institutions along the lines of the German university model, they continued to send their own students across the Atlantic. These personal connections, which one historian has described as "something like old-boy networks," operated alongside official, institutional channels, to the detriment of women.³⁴

German universities derived their authority in part from tradition, but there were also solid scholarly reasons for their reputation. Most of the recognized experts in a variety of fields, from economics to medicine to philology to psychology, worked at Berlin, Göttingen, Leipzig, or one of the many smaller German schools. In addition, German professors were the academic celebrities of the late nineteenth century.³⁵

³¹Walter C. Eells, "Earned Doctorates for Women in the Nineteenth Century," *American Association of University Professors Bulletin* 42 (1956): 646-48; Rossiter, *Women Scientists in America*, 29, 31-34.

³²Johns Hopkins awarded a PhD to a woman in 1893 but did not change its general policy of excluding women graduate students until 1907. Rossiter, *Women Scientists in America*, 45-46.

³³Edmund Sanford to Mary Whiton Calkins, 16 February 1892, quoted in Scarborough and Furumoto, *Untold Lives*, 41.

³⁴Diehl, *Americans and German Scholarship*, 141. See also Veysey, *Emergence of the American University*, 129; Daniel T. Rodgers, *Atlantic Crossings: Social Politics in a Progressive Age* (Cambridge, MA: The Belknap Press of Harvard University Press, 1998), 85.

³⁵Anthony Grafton, "The Nutty Professors," *New Yorker*, 23 October 2006, 82-87. See also William Clark, "On the Dialectical Origins of the Research Seminar," *History of Science* 27 (1989): 111-54; Clark, *Academic Charisma*.

Their weekly lectures were major public events, and American newspapers occasionally devoted significant space to articles about these academic titans.³⁶ When all that—the best education in the world, plus the special aura that accompanied German degrees in America—could be had for two-thirds the cost of Harvard or Johns Hopkins (passage to and from Europe included), there seemed to be little reason not to study in Germany.³⁷

By the late 1880s, in fact, a few American women had already begun to take advantage of the opportunities for higher education in Germany. At the time, German universities did not admit German women—that would have undermined the masculine conception of the university and threatened men's hold on the professions. Foreign women, however, were seen as less threatening because they presumably would return to their home country after a few years of study.³⁸ As Alice Hamilton, who studied in Germany in the mid-1890s, later recalled, "We were told that the only reason women wanted a university education was to make trouble for the government. If foreign governments did not object, that was all right, but Germany had more sense."³⁹

After M. Carey Thomas's frustrating year at Johns Hopkins, she went to Europe to continue her education, arriving at Leipzig in the fall of 1879. In a reversal of her situation at Johns Hopkins, Thomas was welcomed to lectures and even to seminars. Unfortunately, Leipzig proved unwilling to grant women the PhD, forcing Thomas to move to Zurich. Though Swiss, Zurich was German-speaking and similar to German universities in structure and reputation; it had been open to women since 1867.⁴⁰ Thomas received her doctorate in November 1882, becoming not only the first American woman to earn a nonmedical doctoral degree at a German-speaking university, but also the first woman ever to receive the distinction of *summa cum laude* at Zurich.⁴¹

During the 1880s, as Thomas and others demonstrated that at least some German and Swiss universities were open to foreign women, Christine Ladd-Franklin's personal experiences increased her

³⁶Rodgers, *Atlantic Crossings*, 89. For American newspaper articles about German professors, see, e.g., "Banquet in Honor of Von Helmholtz," *Chicago Daily Tribune*, 31 August 1893, 3; E. T. H., "Germany's Leading English Scholar," *New York Times*, 22 April 1906, part 4, 8.

³⁷Rodgers, *Atlantic Crossings*, 85.

³⁸See, generally, Albisetti, *Schooling German Girls and Women*; Mazón, *Gender and the Modern Research University*; and Rowold, *Educated Woman*, chap. 3–5.

³⁹Alice Hamilton, "Edith and Alice Hamilton: Students in Germany," *Atlantic Monthly*, March 1965, 131.

⁴⁰Mazón, *Gender and the Modern Research University*, 87.

⁴¹Horowitz, *The Power and Passion*, 126, 139, 144–47, 152; Singer, *Adventures Abroad*, xiii, 5.

enthusiasm for study in Germany as a solution to the problem of women's advancement in higher education.⁴² Having studied at Johns Hopkins, Ladd-Franklin understood the scholarly appeal of a research degree as well as the German doctorate's tremendous authority within the American academy. As her scientific interests turned toward experimental psychology and vision, she saw that German universities housed the best laboratories and employed the top researchers—men such as Hermann von Helmholtz and Ewald Hering, then engaged in a long-standing controversy over their conflicting theories of color vision.⁴³ Meanwhile, despite having a level of education equal to that required for a PhD, Ladd-Franklin still had trouble finding adequate academic employment. In 1886, for instance, she reported to her aunt that she was teaching three times a week at a girls' school as well as giving private tutorials to “three teachers and three University men,” probably students at Johns Hopkins. Her husband, Fabian Franklin, was a math professor at Hopkins, she wrote, “and I give just as many lessons as he does.”⁴⁴

As a result of Ladd-Franklin's acquaintance with German research and her frustration at the stance of American educational institutions toward women, she eventually submitted “[a] proposition looking to the maintenance of a traveling fellowship” to the ACA's executive committee in May 1888.⁴⁵ The ACA charged Ladd-Franklin with producing a plan for the fellowship, which she did in her “Report,” issued later that year.⁴⁶ “There are plenty of women who are well educated,” she explained; “there are very few who are engaged in making additions to the world's stock of knowledge.” But women did not lack natural ability. The low number of women engaged in research was due instead to insufficient encouragement and opportunity. Ladd-Franklin's proposed fellowship was designed to supply both. The fellowship committee would find a woman—“that young woman who is most likely to become capable of undertaking original researches in any field of

⁴²The others included Eva Channing and Harriet Parker, whom Thomas met at Leipzig, and Florence Kelley, whom Thomas recommended to go to Zurich. See Singer, *Adventures Abroad*, 56–57, 136; Kathryn K. Sklar, *Florence Kelley and the Nation's Work: The Rise of Women's Political Culture, 1830–1900* (New Haven, CT: Yale University Press, 1995), 67–68, 80–90.

⁴³The Helmholtz-Hering controversy is covered in R. Steven Turner, “Vision Studies in Germany: Helmholtz versus Hering,” *Osiris*, 2nd ser., 8 (1993): 80–103; and Turner, *In the Eye's Mind: Vision and the Helmholtz-Hering Controversy* (Princeton, NJ: Princeton University Press, 1994).

⁴⁴Christine Ladd-Franklin to Aunt, 16 January 1886, Box 2, CLF-FF Papers.

⁴⁵Minutes of the ACA executive committee, 19 May 1888, in *AAUW Archives*, reel 5, section II:8.

⁴⁶For instructions to Ladd-Franklin, see in *AAUW Archives*, reel 5, section II:8.; for report, see Christine Ladd-Franklin, “Report of Committee on Endowment of Fellowship,” *Publications of the Association of Collegiate Alumnae* 2, no. 7 (1888).

intellectual activity”—and give her \$500 toward a year of study at any European university. Ladd-Franklin knew that the fellowship had definite limitations and acknowledged that “we cannot hope to produce a race of investigators with so slight a means as a single fellowship.” Nevertheless, she continued, “we shall at least show our undergraduate students that we desire to recognize and, so far as lies in our power, to reward distinguished talent and industry.” Those arguments for the fellowship—to inspire, to encourage, to enable—convinced a majority of the women of the ACA, who voted to establish a fellowship committee and to begin to raise funds for it starting in 1889.⁴⁷

After more than a year of soliciting donations from its members, many of whom were schoolteachers, the ACA had received enough money to start sending one and sometimes two women to Europe beginning in 1890. Although the fellows could technically use their award at any university on the continent or in Britain, Germany dominated as the destination of choice. Of the fifteen women who received the fellowship between 1890 and 1900, eleven used it to attend a German or Swiss university, and another had already studied in Germany before she won the award.⁴⁸ Thanks to their financial backing and previous academic achievements, these women were involved in a disproportionate number of “firsts”—one example being Margaret Maltby, who studied mathematics at Göttingen on an ACA European Fellowship and became in 1895 the first American woman to receive a doctorate from a German university. But the ACA fellowship’s recipients actually formed only a fraction of the several hundred American women who studied a wide variety of subjects in Germany during the 1890s.⁴⁹ Bryn Mawr College and the Women’s Educational Association of New England also offered European fellowships by the early 1890s, and these fellowships inspired other women, as Ladd-Franklin had hoped, “to make more strenuous unaided efforts to carry on their preparation for intellectual work to the

⁴⁷Minutes of the ACA, 19–20 October 1888, in *Publications of the Association of Collegiate Alumnae* 2, no. 9 (1888), in *AAUW Archives*, reel 4, section II:1; Maltby, *History of the Fellowships*, 11.

⁴⁸Of these eleven, five studied math or physics; one each studied biology, botany, classics, German and French, philosophy, and psychology. Julia Warner Snow went to Switzerland: she studied botany at Zurich in 1891–1892. Maltby, *History of the Fellowships*, 13–19.

⁴⁹Rossiter, *Women Scientists in America*, 40; Bessie B. Helmer, “Report of the Committee on Fellowships” (1897), History of Women Collection (microfilm edition, no. 8759), 6; Maltby, *History of the Fellowships*, 16. As James Albisetti has pointed out, Maltby and two other women were recruited by German university officials who wanted to make sure they had promising candidates for their experiment with admitting women students. Albisetti gives 1896 as the date of Maltby’s degree. Albisetti, *Schooling German Girls and Women*, 227. At least 1,350 American and Canadian women studied in Germany between 1868 and 1915, the bulk of them after 1890. Singer, *Adventures Abroad*, xiv.

highest possible degree.”⁵⁰ As a result of this concerted effort, the head of the ACA’s committee on fellowships could note in 1896 that “[t]he scholarly work of four women has been crowned with the degree of Ph.D. A breach has thus been made in some of the strongest fortresses of learning in Germany. The friends of higher education see in this recognition, great possibilities for the future.”⁵¹

American women achieved a great deal during their first few years of concerted effort in Germany, and they managed to publicize those achievements in the American press.⁵² The main purposes of funding women at German universities, after all, were to encourage other women to do the same, to prove that women had the same intellectual abilities as men, and to produce women with the same academic qualifications as men. The ACA hoped that after those first steps had been accomplished, American universities would open their graduate schools and professorships to women as a matter of course. By drawing attention to their efforts in published articles and letters to the editor, the women involved in the German academic exchange tried to speed the progress toward those goals. They spread information to other women about where to study and how to gain admission to lectures; they reported on their accomplishments and on the praise they had received from German professors; and, after American women began to receive doctorates in Germany, they called on American universities to catch up to their German counterparts. More than a dozen such reports appeared in the *Nation* between 1890 and 1897, and as the historian Margaret Rossiter has speculated, Christine Ladd-Franklin probably helped direct this effort.⁵³ The correspondents knew that their letters constituted a publicity campaign directed at both women hoping to go

⁵⁰Ladd-Franklin, “The Usefulness of Fellowships,” 4; Albisetti, “German Influence,” 243.

⁵¹Bessie B. Helmer, “Report of the Committee on Fellowship,” *Publications of the Association of Collegiate Alumnae* 2, no. 58 (1896): 33–40.

⁵²For a sample of the newspaper reports dealing with American women at German universities, see “General Foreign News,” *Chicago Daily Tribune*, 20 January 1891, 5; “Woman’s Work,” *Los Angeles Times*, 13 December 1891, 12; “Educational Gossip,” *Chicago Daily Tribune*, 9 July 1892, 13; “Women in German Universities,” *Chicago Daily Tribune*, 5 March 1893, 42; “Persons and Places,” *New York Times*, 17 December 1893, 18; “May Bring on a Crisis,” *Chicago Daily Tribune*, 24 November 1895, 14; “New Victory for Women,” *Chicago Daily Tribune*, 26 December 1896, 16; “Fight on Women Students,” *Chicago Daily Tribune*, 2 April 1899, A1; “Women Students,” *Los Angeles Times*, 3 January 1900, 5; “German Degree for American Woman,” *New York Times*, 19 February 1901, 7.

⁵³Rossiter, *Women Scientists in America*, 328, n. 15. Rossiter’s speculation gains some credence when one considers that a total of thirty-two letters from Wendell Garrison, the *Nation*’s literary editor, survive in Ladd-Franklin’s papers; half are from the period between 1891 and 1895. See Box 4, CLF-FF Papers. The letters and reports in the *Nation* include Isabelle Bronk, “Women at the University of Leipzig,” *Nation*, 18 December 1890, 480–81; Martha F. Crow, “Women in European Universities,”

abroad and men in the United States. As one woman wrote in 1897, she expected that her letter would “prove of great interest not only to the large number of American ladies who are either at the present time studying in Germany or are preparing to do so, but also to the students of the sterner sex who, during the last few years, have watched with interest and sympathy the persistent struggles of American girls to gain recognition at German universities.”⁵⁴

Owing to publications and other, informal networks of communication, the men in charge of American universities knew of the accomplishments of American women in Germany as they began to open their graduate schools to women in the 1890s. American women’s studies in Germany and the admission of women to top American graduate schools formed part of a culture of greater tolerance of women’s higher education, a culture that the American women of the German university connection knit together with their letters, articles, reports, and other communications. Between 1890 and 1892, just as the ACA European Fellowship was starting to send women to Germany, six major American universities—Brown, Chicago, Columbia, Pennsylvania, Stanford, and Yale—began to admit women as graduate students on equal terms with men.⁵⁵ Many more, including Harvard and Johns Hopkins, still officially refused to admit women, but they kept a close eye on developments in Germany. In 1892, when Christine Ladd-Franklin was studying at Göttingen, the Harvard philosopher and psychologist William James wrote her a brief note, mentioning that “of course we are going to have women in Harvard soon—Göttingen mustn’t be allowed to get ahead.”⁵⁶ James proved optimistic in that particular case—not until 1902 could women receive doctorates for work done at Harvard, and even then they were technically Radcliffe degrees—but he expressed an increasingly common feeling during the 1890s.⁵⁷ In 1900, when M. Carey Thomas surveyed the topic of “Education of Women,” she

Nation, 31 March 1892, 247; “Coeducation in German Universities,” *Nation*, 21 July 1892, 42–43; Benjamin I. Wheeler, “A Woman’s Doctorate at Heidelberg,” *Nation*, 28 December 1893, 483–84; X., “An Old-World Lesson,” *Nation*, 11 January 1894, 28; J. B. S., “Women at the German Universities,” *Nation*, 8 February 1894, 116–17; M. F. K., “Women at the German Universities,” *Nation*, 22 February 1894, 137; J. B. S., “Women at the German Universities,” *Nation*, 1 March 1894, 154; Adele Luxenberg, “Women at Leipzig,” *Nation*, 4 October 1894, 247–48; J. B. S., “Women at Leipzig University,” *Nation*, 11 October 1894, 268; A. B., “An American Woman at the German Universities,” *Nation*, 25 March 1897, 223–24. Anja Becker discusses the many Leipzig-related reports in the *Nation* in Becker, “How Daring She Was!,” 31–46.

⁵⁴G. T. F., “Pioneer Women Students in Germany,” *Nation*, 8 April 1897, 262.

⁵⁵Chicago and Stanford opened during these years and admitted women from the start. Rossiter, *Women Scientists in America*, 34.

⁵⁶William James to Christine Ladd-Franklin, 3 March 1892, Box 1, CLF-FF Papers.

⁵⁷Rossiter, *Women Scientists in America*, 44.

found only a handful of American universities that still kept women out of their graduate departments.⁵⁸ Two hundred twenty-eight women had received doctorates from American institutions by that time, with more than two-thirds of those coming between 1895 and 1900, when American women were also starting to earn degrees from German universities.⁵⁹

“The Next Stage in the Advancement of Women”: German Funding Models in America

Toward the end of the 1890s, it became apparent to some women in the ACA that their strategy for securing equality for women in the academy—the indirect method of educating women to the same level as men—had reached its limits. Now, Ladd-Franklin and others decided, women needed to push directly for professorships. Professorships for women, they thought, would lead to equality for women at all levels of the educational system. As they had before, and as American men had for decades, these women looked to Germany for a model.

Ladd-Franklin knew well the difficulties confronting a well-educated woman who wanted to work. Her marriage to Fabian Franklin gave her greater economic security and more opportunities than most women—especially single women—had at the time. She benefited from her husband’s salary, but she was acutely conscious of her dependence on it—indeed, of most women’s dependence on men for their economic survival. She believed that women should be able to support themselves with their own work and tried to advance that goal by whatever means she could. Because Ladd-Franklin thought an understanding of political economy was crucial for wives to be the equals of their husbands, she organized women’s study groups on the subject. As she once recalled, “I did not know it [political economy] before I was married. . . . Mr. Franklin smiled that superior masculine smile—so as soon as I could—after our wedding journey—I studied it, & I assure you I have felt like a different person ever since,—also, his equal.”⁶⁰ Ladd-Franklin also drew parallels between her own desire for higher education and that

⁵⁸Those schools were the Catholic University, Clark, Johns Hopkins, and Princeton. Harvard allowed women into graduate courses only through Radcliffe. M. Carey Thomas, “Education of Women,” in *Education in the United States: A Series of Monographs*, ed. Nicholas M. Butler (New York: American Book Company, 1910), 349.

⁵⁹Women were more likely to get doctorates in the humanities (102 degrees, with English the top choice) than in the social sciences (66, mostly education and history) or the natural sciences (48, spread mainly among chemistry, botany, math, and zoology). The fields for the rest of the women are unknown. Eells, “Earned Doctorates for Women,” 646–48.

⁶⁰Christine Ladd-Franklin, untitled notes, n.d., Box 10, CLF-FF Papers.

of medieval nuns, who had used the same texts as monks before learning moved from monasteries to universities. “By a curious fatality,” she concluded in an 1896 review, “the very cause which made learning freer and more untrammelled for men, and started it upon the immense developments of modern times, was what rendered it inaccessible to women—the growth of the great universities.” Ladd-Franklin’s European Fellowship was designed to get women into those great universities and thus to spur “the revival of learning among women.”⁶¹

By the late 1890s, however, Ladd-Franklin knew that a German education did not necessarily guarantee women professorships at American universities. Soon after her successful establishment of the ACA European Fellowship, she had studied in Germany for more than a year, though not through the fellowship. When her husband, Fabian, took his sabbatical from Johns Hopkins in 1891–1892, the couple went with their young daughter to Germany, where both Christine and Fabian had arranged to work with top scholars in psychology and mathematics, respectively. But Christine had a harder time than Fabian; for each university at which she wanted to work, she had to make special applications to various professors and government ministers in order to secure the proper permissions.⁶² After spending the fall with G. E. Müller in Göttingen and the spring with Arthur König in Berlin, Ladd-Franklin had come up with her own theory of color vision, which combined elements of the competing Hering and Helmholtz theories then in vogue at the two universities.⁶³ She presented her theory at the International Congress of Experimental Psychology that summer in London, where it received praise even from the highly respected Helmholtz.⁶⁴ Two years later, during the summer of 1894, Ladd-Franklin went back to König’s lab in Berlin, which since the 1880s had been regarded as the best in Europe for precision colorimetry.⁶⁵ The discoveries she and König made that summer regarding color-blindness had ramifications for the Helmholtz-Hering dispute—it was an area in which the theories

⁶¹ Christine Ladd-Franklin, “Woman Under Monasticism,” review of *Woman Under Monasticism: Chapters on Saint-Lore and Convent Life between A.D. 500 and A.D. 1500*, by Lina Eckenstein, *Nation*, 30 July 1896, 90.

⁶² Christine Ladd-Franklin to Arthur König, [1891?], Box 8, CLF-FF Papers; Ladd-Franklin to Minister der Geistlichen Unterricht und Medizinalangelegenheiten, 1891, Box 8, CLF-FF Papers.

⁶³ For the affiliations of Müller and König, see Turner, “Vision Studies in Germany,” 85.

⁶⁴ Scarborough and Furumoto, *Untold Lives*, 123–24; Christine Ladd-Franklin, undated notes, Folder 27, Box 14, CLF-FF Papers. For Ladd-Franklin’s theory, see Ladd-Franklin, “A New Theory of Light-Sensation,” *Proceedings of the International Congress of Experimental Psychology* (London, 1892), 103–8.

⁶⁵ Christine Ladd-Franklin to Fabian Franklin, 17 June 1894, Box 7, CLF-FF Papers. On König’s lab, see Turner, “Vision Studies in Germany,” 87; Turner, *In the Eye’s Mind*, 197.

made different predictions—and their new research led to both a new theory from König and a criticism of that theory by Ladd-Franklin.⁶⁶

If Ladd-Franklin's work at Hopkins a decade earlier was not sufficient, the case for a professorship now seemed irrefutable. Nevertheless, she could not find an academic position open to her. Her situation was complicated, no doubt, by her family: her marriage made her ineligible to teach at many women's colleges and kept her tied to the cities where her husband worked—first Baltimore, then New York.⁶⁷ Not until 1904 did Ladd-Franklin secure a series of year-to-year lectureships at Johns Hopkins and then, after the family moved, at Columbia, but she never received a regular appointment at either school.⁶⁸

Like Ladd-Franklin, other women in the ACA began in the late 1890s to see the ineffectiveness of indirect methods of placing women in professorships. Kate Holladay Claghorn identified some of the shortcomings of the European Fellowship in her talk on "The Problem of Occupation for College Women," given at the October 1897 meeting of the ACA. Although women had proven that they had the same intellectual abilities as men and could now even receive German and American doctorates, Claghorn noted, women still could not become professors at many major American universities. Women had to compete among themselves for the teaching slots at women's colleges and secondary schools, meaning that they received worse positions and lower pay than they otherwise would have. Claghorn's analysis of the problems facing college-educated women echoed that of Ladd-Franklin, whose 1890 article on "The Usefulness of Fellowships" had advocated overseas training to increase the number of women who became professors and thus to improve the lot of women as a whole. Nearly a decade later, even after the success of women at German and American universities, women still made up only 20 percent of the faculty at American institutions, and many of those women were in nonprofessorial positions.⁶⁹

⁶⁶On the importance of color blindness in the dispute, see Turner, "Vision Studies in Germany," 80–82. On the role of König and Ladd-Franklin in the color vision debates of the 1890s, see Turner, *In the Eye's Mind*, 196–210. Many aspects of the Helmholtz-Hering dispute are still unresolved, but in the late 1950s, Leo M. Hurvich and Dorothea Jameson reached a compromise resembling Hering's theory in the field of color vision. Turner, "Vision Studies in Germany," 101–2.

⁶⁷Ladd-Franklin turned down an offer from Bryn Mawr in 1889. Christine Ladd-Franklin to M. Carey Thomas, 19 May 1889, Box 6, CLF-FF Papers.

⁶⁸Furumoto, "Joining Separate Spheres," 180.

⁶⁹Claghorn, "The Problem of Occupation for College Women," 217–30. Even as women began to earn more degrees, the proportion of professors who were women remained at about 20 percent from 1890 to 1910. See National Center for Education Statistics, "Historical Summary of Faculty, Students, Degrees, and Finances in Degree-Granting Institutions: Selected Years, 1869–70 through 2006–07," *National Center for Education Statistics*. Accessed 12 October 2009 at: http://nces.ed.gov/programs/digest/d08/tables/dt08_187.asp.

As it became clear that the ACA's European Fellows were having trouble securing professorships, Ladd-Franklin developed a plan for a new system of fellowships, which she presented at the ACA's annual meeting in 1903.⁷⁰ Women coming back from Germany "find that there is nothing in the world for them to do save the drudgery of teaching in the public schools," Ladd-Franklin noted, meaning that "the certificate of their doctorate is but an empty honor." To fix that problem, the ACA needed to figure out how to secure these women "the minor professorships in the major universities, those which offer leisure at first, and, later, opportunity for advancement." In keeping with her turn toward direct action, Ladd-Franklin argued that the time had come to push for professorships "by hothouse methods if necessary."⁷¹

As Ladd-Franklin explained in the proposal for "Endowed Professorships for Women" that she laid out in November 1903, she envisioned "the next stage in the advancement of women" as a female version of the German *Privatdozent*.⁷² The rise of the German research university in the early nineteenth century had rested largely on the unsalaried *Privatdozenten* who relied on fees from the students who listened to their lectures. The *Privatdozent* was the intellectual hero of the age, embodying the Romantic virtues of independence, idealism, and poverty. New regulations for *Privatdozenten* had first been instituted at Berlin in the 1810s: young men now had to present the equivalent of a second dissertation (the *Habilitationsschrift*) in order to be licensed by the faculty to lecture in a single subject. This was a crucial step in the professionalization of German academic careers as well as in the reorientation of academic work toward writing and research. In addition, aspiring academics had an incentive to do more research and to specialize during their years as *Privatdozenten*, since they could attract more students (and thus more fees) if they made a new niche for themselves. By the end of the nineteenth century, the *Privatdozent* position had become the first step most young men took on their path to a professorship.⁷³

⁷⁰Claghorn and other friends supported Ladd-Franklin's plan and persuaded her to present it to the ACA. See Kate Holladay Claghorn to Christine Ladd-Franklin, 14 October 1898, Box 3, CLF-FF Papers; Claghorn to Ladd-Franklin, 25 October 1898, Box 3, CLF-FF Papers; Elizabeth Howe to Ladd-Franklin, 28 May 1903, Box 4, CLF-FF Papers; Florence Cushing to Ladd-Franklin, 21 June 1903, Box 4, CLF-FF Papers.

⁷¹Christine Ladd-Franklin, "Endowed Professorships for Women," *Publications of the Association of Collegiate Alumnae* 3, no. 9 (1904): 53–61.

⁷²*Ibid.*, 53.

⁷³Turner, "The Prussian Universities and the Research Imperative," 364–67, 466, 422; McClelland, *State, Society, and University in Germany*, 165–68; Fritz K. Ringer, *The Decline of the German Mandarins: The German Academic Community, 1890–1933* (Cambridge, MA: Harvard University Press, 1969), 36; and Ringer, "A Sociography of German Academics, 1863–1938," *Central European History* 25 (1992): 251–80.

Ladd-Franklin wanted to adapt the position of the *Privatdozent*, which she called a “docentship,” to the academic needs of American women. Docentships were the secret ingredient in the German system of higher education, Ladd-Franklin argued, because they provided “a preliminary period of growth and development” that led to “the brilliant work which it is the regular thing for the German professor to produce, throughout a long life.” Such a position, as Ladd-Franklin conceived it, would function like a postdoctoral fellowship: it would give young scholars time to do more research while also placing them on university faculties as lecturers. Through research, individual women could advance their own scholarly careers, and through lectureships, women could get a foot in the door of the faculty at institutions such as Harvard and Johns Hopkins. The proposal called for giving women at least \$1,000 for a year so that their host university would not have to pay them—and thus would be more likely to allow them to do research and to lecture.⁷⁴ This departed somewhat from the German example but was not unprecedented: a proposal to give *Privatdozenten* regular pay had been put forward in 1848, and Prussia had set up a small fellowship to support poor *Privatdozenten* in 1875.⁷⁵

In addition, Ladd-Franklin insisted (owing no doubt to her experience as an unlisted student at Johns Hopkins) that the women be included in university catalogues along with the regular faculty. That would set a precedent for women as faculty members and help remove “the prejudice which now exists against the idea of college professorships held by women.” Although Ladd-Franklin would later become dissatisfied with her own position as a year-to-year lecturer, she believed that younger women would be able to advance more easily from lectureships to professorships. Her bold hope was “to create a few first-class women college professors who would not otherwise exist,” and she believed that the existence of those few professors would constitute “a distinct contribution toward the furthering of the rights and privileges of the sex in general.”⁷⁶

Ladd-Franklin’s hope was too bold for some. Would universities welcome women lecturers who had been thrust upon them? The ACA immediately set up a committee on endowed professorships, with Ladd-Franklin at the helm, to look into the feasibility of the proposal.⁷⁷

⁷⁴Ladd-Franklin, “Endowed Professorships for Women,” 60.

⁷⁵McClelland, *State, Society, and University in Germany*, 223, 271.

⁷⁶Ladd-Franklin, “Endowed Professorships for Women,” 59, 61; Rossiter, *Women Scientists in America*, 49–50.

⁷⁷Elizabeth Lawrence Clarke, “Report of the Meetings of the Executive Committee Held at Milwaukee,” *Publications of the Association of Collegiate Alumnae* 3, no. 9 (1904): 85.

But several groups within the ACA—those who wanted the organization to focus on practical work, like home economics, as well as those who preferred a less aggressive plan and those who feared that lectureships would not lead to professorships—might not have been disappointed if Ladd-Franklin's docentships proposal had failed. Little evidence remains, but the minutes of the ACA executive committee show an increasing impatience with Ladd-Franklin's committee on endowed professorships as the years dragged on, while Ladd-Franklin's reports became more defensive.

In 1906, after three years with no results, the executive committee considered dissolving Ladd-Franklin's committee.⁷⁸ With the survival of her plan at risk, Ladd-Franklin was compelled to articulate her ideas with greater urgency and force. "Observe that our plan would not involve forcing our candidate upon a university where she was unwelcome, or even where she was a stranger," she told her critics at the 1907 ACA meeting. Any distinguished professor, she assumed, ought to welcome working with a woman who had already proved her intelligence. Ladd-Franklin zeroed in on what she saw as a primary reason why women held so few professorships: "it is strange, unusual, not the thing, not what happens in other colleges," she explained, "to see a woman lecturing." Ladd-Franklin had designed her docentships plan as a step toward ending that prejudice. Characteristically, she then connected her plan to the cause of women in general: "so long as women are not admitted to the rank of being considered, when they deserve it, good material for college professors," she said, articulating her usual vision of a small group of talented women advancing the interests of the rest, "they are not treated, as a sex, with that recognition of their ability which we think they deserve."⁷⁹

Soon after Ladd-Franklin issued her report, the ACA discharged her committee. Later that afternoon, the executive committee created a new committee on academic appointments, whose goal was "to obtain information as to placing eminent women in dignified academic positions."⁸⁰ It was at once more passive and more radical than Ladd-Franklin's plan: it would only "obtain information," rather than do direct placement, but its stated goal was to get women into "dignified academic positions," a phrase which stood in striking contrast to Ladd-Franklin's emphasis on lectureships as a first step.

⁷⁸Minutes of the ACA executive committee, 10 November 1906, in *AAUW Archives*, reel 4, section II:3.

⁷⁹Christine Ladd-Franklin, "Report of the Committee on the Endowment of Fellowships," *Publications of the Association of Collegiate Alumnae* 3, no. 17 (1908): 143–46.

⁸⁰Elizabeth L. Clarke, "Summarized Minutes and Proceedings of the Executive Committee," *Publications of the Association of Collegiate Alumnae* 3, no. 17 (1908): 114–15.

Yet Ladd-Franklin's arguments and fundraising skills eventually worked: in December 1907, a month after the ACA phased out her committee on endowed professorships, she convinced the German-born inventor of the gramophone, Emile Berliner, to contribute \$12,500 toward the establishment of a new research fellowship for women, which he named for his mother, Sarah. Although Berliner specified that the fellowship, which would start in March 1909, should go only to women in the fields of biology, chemistry, and physics, he left many of the details up to Ladd-Franklin, who became the fellowship's director.⁸¹ She adopted the basic framework of her docentships proposal, such that the goal of the new Sarah Berliner Research Fellowship, one newspaper reported, was "to give to women who have shown, in work already accomplished, real promise as investigators an opportunity to pursue scientific researches."⁸² In 1911, Ladd-Franklin reported in *Science*, Emile Berliner doubled the original endowment of the fellowship, enabling the \$1,000 grant to be awarded every year rather than every other year.⁸³ Berliner's total donation of \$25,000 constituted the ACA's largest outside endowment at the time, and the Berliner Fellowship was the most generous fellowship for women in America until the late 1920s.⁸⁴

Ladd-Franklin retained personal control over the Sarah Berliner Research Fellowship until 1919, often writing letters to arrange lectureships or even offering loans of her own money.⁸⁵ As a result of those efforts, the Berliner Fellowship successfully placed women in research positions at major universities, though Ladd-Franklin faced some criticism for her heavy-handed administration of the fellowship as well as her behind-the-scenes letters and loans.⁸⁶ Of the dozen women who held the Berliner Fellowship between 1909 and 1920, two spent

⁸¹Ladd-Franklin, "Report of the Committee on the Endowment of Fellowships," 146. See also Frederic William Wile, *Emile Berliner: Maker of the Microphone* (Indianapolis: Bobbs-Merrill, 1926), 146, 301–4; "Scientific Notes and News," *Science*, 27 December 1907, 923–24.

⁸²Untitled clipping about Berliner Fellowship, *New York Nation*, 19 December 1907, in Box 18, CLF-FF Papers. The Berliner Fellowship fits into the "separatism as strategy" framework outlined by Estelle Freedman in "Separatism as Strategy: Female Institution Building and American Feminism, 1870–1930," *Feminist Studies* 5 (1979): 512–29.

⁸³Christine Ladd-Franklin, "The Sarah Berliner Fellowship," *Science*, 24 November 1911, 705–6.

⁸⁴Ruth W. Tryon, *Investment in Creative Scholarship: A History of the Fellowship Program of the American Association of University Women, 1890–1956* (Washington, DC: American Association of University Women, 1957), 184; Wile, *Emile Berliner*, 303.

⁸⁵Ladd-Franklin described her work on behalf of Berliner Fellows in a letter to Heinrich Ries, 22 April 1916, Box 18, CLF-FF Papers. For an example of a loan by Ladd-Franklin, see James H. Leuba to Christine Ladd-Franklin, 26 April 1911, Box 4, CLF-FF Papers.

⁸⁶Rossiter, *Women Scientists in America*, 50.

their fellowship year at Johns Hopkins; two at Würzburg, in Germany; two at the University of California (Berkeley); and one each at Columbia and Cornell. These first dozen Berliner Fellows went on to teach at schools such as California (Berkeley), Columbia, Cornell, Johns Hopkins, Minnesota, New York University, and Washington (Seattle). By the end of the 1920s, more of the first dozen Berliner Fellows were employed at coeducational universities than at women's colleges.⁸⁷

An Era of Progress?

The European Fellowship and the Berliner Fellowship were two elements of a broader campaign that helped make the 1920s a brief high tide in the history of American women's higher education.⁸⁸ During the 1920s, women made up about 45 percent of all faculty and students, a level of representation they would not reach again until the 1970s.⁸⁹ Viewed against this rosy background, why did the creative and courageous efforts of Christine Ladd-Franklin and other early academic women not have a larger or longer lasting effect in America?

If Ladd-Franklin had known more about the problems facing *Privatdozenten* in Germany, she might have been more hesitant and less hopeful about using that position as a model for the advancement of academic women in America. By the late nineteenth century, the *Privatdozent* had become the usual first step on one's path to a professorship, but that path was far from guaranteed. Full professors had a strong incentive to restrict opportunities for promotion—only they played a role in university governance and held positions as civil servants—even as the professoriate's increasing social prestige and economic security attracted more aspiring professors. And as the possibility of promotion withered, the work became more grueling. To accommodate the

⁸⁷Maltby, *History of the Fellowships*, 66–79. According to Maltby, six of the women had jobs at coeducational universities or research institutes, two had jobs at women's colleges, two had science-related jobs outside academia, and two had no job. Margaret Rossiter has concluded that “the project failed in its second and larger purpose of inducing the major universities to hire prominent women scientists and scholars.” Rossiter, *Women Scientists in America*, 50.

⁸⁸Nancy F. Cott, *The Grounding of Modern Feminism* (New Haven: Yale University Press, 1987), 218–19. See also Patricia A. Graham, “Expansion and Exclusion: A History of Women in Higher Education,” *Signs* 3 (1978): 759–73; Solomon, *In the Company of Educated Women*, 133.

⁸⁹In 1920, women made up 45.8 percent of faculty and students; in 1930, that figure was 42.5 percent. The low point for women in American colleges and universities was around 1950 (29.8 percent), but large numbers of women students pushed women's overall representation in higher education to 39.8 percent in 1970 and 49.7 percent in 1980. “Historical Summary,” National Center for Education Statistics.

astounding growth of the German student population after 1870, the German educational ministry increasingly treated *Privatdozenten* and other lower tier faculty positions as convenient pools of cheap labor.⁹⁰ Although the German sociologist Max Weber claimed in 1911 that “the younger generation of American university teachers are required to carry a teaching burden of a magnitude which is unknown in Germany,” the reality was that *Privatdozenten* often gave two lecture courses per semester, in addition to conducting seminars and doing research.⁹¹ Between 1880 and 1920, the average time between the *Habilitation*, when one qualified to become a *Privatdozent*, and the start of a salaried professorship rose from six years to nine years, even as the average age at doctorate and at *Habilitation* were also increasing.⁹²

A position modeled on the *Privatdozent* was thus not likely to improve the lot of women in an American system of higher education that was experiencing similar increases in size and societal significance. In fact, the growth of American universities during the late nineteenth and early twentieth centuries pushed individual women and women’s institutions even farther to the margins. The decision to fight for women’s admission to coeducational graduate schools—instead of setting up separate graduate schools at women’s colleges—meant that women’s colleges were left behind as many male and coeducational institutions developed research-oriented doctoral programs. Women’s colleges sank in the increasingly elaborate institutional hierarchy of American higher education, their professors had a harder time moving on to research universities, and their students became less likely to choose a future of scholarly research.⁹³ Meanwhile, the political and economic crises of the 1930s and 1940s meant that schools without much money to spare would be even less likely to hire women. After World War II, the GI Bill greatly increased the number of men on college campuses, thus further decreasing women’s presence at institutions of higher education.⁹⁴ In addition, the rise of huge foundation and government grants for research, which were generally awarded to men, reduced the potential

⁹⁰McClelland, *State, Society, and University in Germany*, 166, 242, 258–72; McClelland, “Professionalization and Higher Education in Germany,” 309–20; Ringer, *Decline of the German Mandarins*, 53–55

⁹¹Quoted in McClelland, *State, Society, and University in Germany*, 311–12.

⁹²Ringer, “A Sociography of German Academics,” 263–64.

⁹³This was related to the general decline of separate single-sex institutions after World War I. See Gordon, *Gender and Higher Education*, 198; Penina M. Glazer and Miriam Slater, *Unequal Colleagues: The Entrance of Women into the Professions, 1890–1940* (New Brunswick, NJ: Rutgers University Press, 1987), 56.

⁹⁴Graham, “Expansion and Exclusion,” 759–73; Rosenberg, *Beyond Separate Spheres*, 238–46; Rossiter, *Women Scientists in America*, chap. 6; Solomon, *In the Company of Educated Women*, 188–90.

boost that Ladd-Franklin's small fellowships could give to a woman's career.⁹⁵

Behind this increasing marginalization of women in American higher education lay changes in the women's movement and gender relations as well as continuing male prejudice. When Ladd-Franklin had come of age, in the late nineteenth century, it had not seemed odd for the "woman movement" to use the singular: most of the women involved, such as Ladd-Franklin, were white, Protestant, and middle class, with shared hopes of gaining the vote and access to higher education.⁹⁶ That homogeneity broke down in the early twentieth century, however, in part owing to the increasing numbers of women who worked away from home. After 1920, the suffrage campaign no longer united these women, and the movement splintered into a variety of separate groups with different and sometimes conflicting goals. Although the ACA, for example, became a more centralized organization in the 1920s and consolidated several branches into the American Association of University Women, its members disagreed over whether to support the Equal Rights Amendment, introduced in 1921.⁹⁷ The split reflected a broader division among women over whether to emphasize equality and push for rights as individuals or to highlight difference and work for the advancement of women as a group.⁹⁸

Each option, treated separately, led to trouble. Highlighting women's difference could have enabled a coherent strategy for improving the position of women as a class, but in practice it often played into old ideas about women's supposedly separate role in society. The ACA had formed in the 1880s to refute the notion that education was incompatible with women's anatomy, but it had not dislodged the underlying assumption that biology gave women a particular role in society—a role for which, some reformers argued, women's educations should train them.⁹⁹ This assumption retained its currency in the early twentieth century, as men reacted against women's increasing activity outside the home and women tried to combine a college education with conventional domesticity.¹⁰⁰ In 1910, the ACA formed a new "committee on vocational opportunities other than teaching" and began to argue

⁹⁵Mary A. Dzuback, "Creative Financing in Social Science: Women Scholars and Early Research," in *Women and Philanthropy in Education*, ed. Andrea Walton (Bloomington: Indiana University Press, 2005), 110, 120.

⁹⁶Cott, *Grounding of Modern Feminism*, 16–20.

⁹⁷Levine, *Degrees of Equality*, 13–16.

⁹⁸Cott, *Grounding of Modern Feminism*, passim.

⁹⁹Zschoche, "Dr. Clarke Revisited," 548–50, 561–63, 566–67.

¹⁰⁰Gordon, *Gender and Higher Education*, 192, 195–99; Zschoche, "Dr. Clarke Revisited," 567–68; Glazer and Slater, *Unequal Colleagues*, 63–64; Joyce Antler, *The Educated Woman and Professionalization: The Struggle for a New Feminine Identity, 1890–1920* (New York: Garland, 1987), 408–9. See also Cott, *Grounding of Modern Feminism*, chap. 5.

more strongly that women's educations should include courses such as home economics and sanitary science, which would prepare them for the traditionally feminine occupations of housework and social work.¹⁰¹ This "professionalization of domesticity" shifted the goal of women's education from scholarly success to superior womanhood.¹⁰²

Arguing for equal opportunity in a framework of liberal individualism also failed to advance women's scholarly careers.¹⁰³ Even men who professed a belief in equal opportunity for women turned out, in fact, to harbor a strong prejudice against women's intellectual abilities.¹⁰⁴ Warner Fite claimed "to believe in open competition without prejudice either way," he wrote to Ladd-Franklin in 1905, in response to her docentships proposal. At the time, Fite was a young philosophy instructor at the University of Texas; he would later become a professor at Princeton and publish a series of lectures called *Individualism*. But early in his career, Fite had already found that women "feel under no responsibility of thinking for themselves." Based on what he had seen of women professors, Fite could only conclude that "there may be something in the prejudice against women as professors, because a college professor ought, above all, to be one who, in the end, thinks for himself; and therefore I should like to see the women meet the test of competition, believing that those who meet the test will finally overcome the prejudice."¹⁰⁵ As long as men such as Fite were the judges of that test, and as long as they had the support of a broader societal belief in women's domestic destiny, even the most talented women would have little chance of success.

The end of Christine Ladd-Franklin's story reveals the poignant combination of individual achievements and institutional obstacles—of optimism mixed with frustration—that marked women's experiences with American higher education throughout this period. Although Ladd-Franklin did four years of graduate work at Johns Hopkins and spent several years at German universities, she had never received a

¹⁰¹ See the committee's two reports: *Vocational Training: A Classified List of Institutions Training Educated Women for Occupations Other Than Teaching* (Northampton, MA: Gazette Printing, 1913) and Marie Francke, *Opportunities for Women in Domestic Science* (Philadelphia: Association of Collegiate Alumnae, 1916).

¹⁰² Roberta Wein, "Educated Women and the Limits of Domesticity, 1830–1918" (PhD dissertation, New York University, 1974), 136–50.

¹⁰³ See Cott, *Grounding of Modern Feminism*, 275–78, 280–82.

¹⁰⁴ A 1924 survey of 152 men and women employed at American colleges reported that more than two-thirds would give preference to a man over an equally qualified woman, and more than one-third would give preference to a less-qualified man over a better qualified woman. For additional statistics documenting male prejudice at American universities in the 1920s, see Patricia M. Hummer, *The Decade of Elusive Promise: Professional Women in the United States, 1920–1930* (Ann Arbor, Michigan: UMI Research Press, 1979), 100–2.

¹⁰⁵ Warner Fite to Christine Ladd-Franklin, 28 May 1905, Box 3, CLF-FF Papers.

PhD. In the 1920s, the septuagenarian finally had to ask for the degree herself. In Ladd-Franklin's subsequent correspondence with professors at Johns Hopkins, one of the letters addressed to her at Columbia, where she held a lectureship, was misdirected. "This is probably a unique occurrence in this world," Ladd-Franklin ruefully noted, "that some one who is suggesting that she should be made a doctor of philosophy turns out to be a person who is so unknown in the university in which she is lecturing that her mail cannot be delivered to her!"¹⁰⁶

Eventually, the Johns Hopkins board of trustees consented to grant a doctorate to Ladd-Franklin. It was conferred on the institution's fiftieth anniversary, in 1926, a full forty-four years after she had finished her work there. Now 78, too old for the degree to have any but a symbolic value, Ladd-Franklin traveled from New York to Baltimore to receive her PhD in person. As Frank Goodnow, the president of Johns Hopkins, wrote in his letter telling her that she would receive her doctorate, "At that time as you know it was the policy of the Institution not to give degrees to women. Since then we have seen the light and no doubt the distinguished service which you have rendered to the advancement of knowledge since your residence among us has aided in bringing about this change of policy."¹⁰⁷

Johns Hopkins and other universities had seen the light regarding degrees for women, but they did not yet get the larger point—for which Ladd-Franklin had struggled—that women and men with the same qualifications ought to be treated equally. The growth and professionalization of American institutions of higher education had provided women, eventually, with new opportunities, but the processes of professionalization and institutionalization had also resulted in new ways in which women could be excluded. Meritocracy for men rode on the back of discrimination against women; formal equality did not translate into any meaningful equality of opportunity. For that, women in the academy, except in rather unusual cases, would still have to wait another fifty years, or more.

¹⁰⁶Christine Ladd-Franklin to Joseph Sweetman Ames, 8 February 1926, Box 3, CLF-FF Papers.

¹⁰⁷Frank Goodnow to Christine Ladd-Franklin, 6 February 1926, Box 4, CLF-FF Papers.