The saga of the triumph of the elective system over the classical curriculum is well known. Simply stated, it contrasts exciting curricular experiments at universities with the classical curricula that supposedly stifled colleges until they finally accepted defeat, cast off the constraints of the prescribed curriculum, and embraced the elective system. However, as seen in Chapter 4, the curricular variety of these four colleges between 1865 and 1890 defied that image, suggesting that collegiate innovation has been underestimated. An examination of the curricula at these four colleges between 1890 and 1917 demonstrates that neither electives nor vocationalism triumphed. Instead, a new consensus emerged based on a definition of liberal education that incorporated breadth, electives, and specialization.

Contrary to the assumption that religious and curricular conservatism were synonymous, at Bucknell and Princeton two theologically traditional presidents, the Revs. John Harris and Francis Patton, championed electives and professional courses. Harris loosened Bucknell’s requirements so that, by 1900, only freshmen followed a prescribed schedule. He established a bachelor of philosophy degree with no Greek requirement and expanded the science faculty. After the turn of the century, Bucknell added new degrees in the sciences, engineering, and jurisprudence. By 1917 its students could choose from ten parallel courses of study ranging from liberal arts to domestic science.¹

¹ J. J. Orin Oliphant, The Rise of Bucknell University (New York: Appleton-Century-Crofts, 1965), 215–26; John H. Harris, Thirty Years as President of Bucknell with Bac-
At Princeton, President Patton greatly extended the electives permitted under James McCosh. By 1900 only one-third of the junior courses and none of the senior courses were required. The School of Science continued to be a refuge for students hoping to avoid the classics, but it increasingly offered more technologically specialized programs for students truly interested in science. For instance, for the school's degree in civil engineering the only required nontechnical courses were one year of English and a foreign language. In Patton's years the proportion of students in the scientific curriculum doubled from one-sixth to about one-third. Toward the end of his presidency he considered making the senior year preprofessional. Patton's rejection of a faculty plan to restore structure to the curriculum precipitated his ouster.

Propelled into office by the faculty's desire for a new curricular structure and by alumni financial backing, Wilson used the opportunity to create a system of "distribution and concentration" that has become the dominant curricular model in twentieth-century colleges. There had been experiments with grouping courses for breadth and depth since Johns Hopkins did so in the 1870s, and Wilson may have derived some of his ideas from his former employer, Bryn Mawr. Wilson's timing and Princeton's prestige gave the approach national attention. It provided a rationale for upper-class course selection by focusing upon a majority (or "major") field of study. Upperclassmen chose three courses in their major department and two electives. Freshmen courses were prescribed (with a choice among modern languages); sophomores had three requirements and two electives. Thus, freshmen and sophomores, except those in civil engineering, followed a relatively common program until major studies began.²

Wilson's plan gave each degree program more integrity and equalized the admission requirements. Candidates for the B.A. could choose any major, while B.S. candidates were restricted to the sciences and those pursuing the new bachelor of literature degree had to major

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in the humanities or the social sciences. The new system also permitted a more distinctive and prestigious scientific curriculum. After Wilson's 1904 reorganization, the B.S., which had been an easy option for some students wanting to take less classics, added demanding scientific requirements.³

Of the four colleges only Franklin and Marshall retained a wholly prescribed classical curriculum after 1890. Entering classes attended courses as a group until 1893, when rising enrollment forced the division of classes into sections. The prescribed curriculum was preserved by requiring as many as ten courses per term and relegating others to the status of options. In 1894 the optional courses entered the regular curriculum; seniors were allowed to choose eight courses from a list of twelve. Since there was no substantive change in the courses offered, the actual effect of the elective system was that seniors could skip some of the old requirements in order to take the formerly optional courses.⁴

A petition from a delegation of juniors ended the classical monopoly in 1899. These young men, primarily premedical students, complained that the extensive classical language requirements prevented them from spending sufficient time on science. President Stahr temporarily removed the Greek requirement and reported his action to the board of trustees the following June, along with a resolution of support from the Potomac Synod, for a permanent reduction of the classics requirements for students interested in science. The board accepted that a modification was "called for by the demands of the age and the needs of the Church," clearing the way for a parallel curriculum.⁵ The resulting bachelor of philosophy program allowed students to replace Greek with science and modern languages and offered some electives to seniors.

By 1912 Franklin and Marshall was the only college in Pennsylvania without a degree program in science. President Apple used this fact

⁴. Franklin and Marshall College, Catalogue, 1892–93 to 1901–2; Franklin and Marshall College, Board of Trustees, Minutes (Franklin and Marshall Archives), 13 June 1893.
to get trustee approval for a bachelor of science curriculum in which French and German were the only language requirements. Two years later the classical and philosophical programs were combined, enabling students to receive a B.A. without studying Greek. These programs provided neither a satisfactory sense of purpose nor an adequate depth of specialization. Finally, a major revision in 1915 established a prescribed freshman curriculum to be followed by a major of seven courses and three minor studies consisting of five courses each. Thus, Franklin and Marshall went directly from a heavily prescribed curriculum to a system of distribution and concentration without an intervening period of extensive electives. It maintained the most consistent vision of the liberal arts among the four colleges by hanging onto an outmoded curriculum until a new structure appeared.6

Swarthmore’s curricular development contradicts normal expectations. In the late 1880s and early 1890s Swarthmore increased its classics requirements and reduced electives, bringing its curriculum closer to that offered by other colleges. But long-standing antipathy toward the classics undercut the reinforced classical course, and most students chose the bachelor of letters or bachelor of science degrees, which did not require classical languages. In the class of 1902 only eight of fifty-two graduates received a B.A., as opposed to twenty-seven B.L. and seventeen B.S. degrees. When President Swain took office the next fall he abolished the B.L., allowing students to receive the B.A. without classical languages.

Swain, who came to the presidency the same year that Wilson did, instituted in his first year a sweeping and innovative reform similar to the one that soon attracted national attention at Princeton. Although Swain implemented his program before Wilson started his, he received little publicity. Under Swain’s plan, freshmen fulfilled distribution requirements in English, a foreign language, science, mathematics, history, economics, and Bible study. The major study dominated the next three years, with three courses per semester in the major or related departments and two electives. Students majoring in science were brought under the bachelor of arts umbrella,

while engineering students had a distinctive program. Previously, engineering students completed a variation of the B.S. curriculum and received an engineering degree after three years of employment in the profession. This remnant of apprenticeship was replaced by a new course of study leading directly to a bachelor of science in engineering degree that was almost wholly prescribed and technical. After 1908 Swarthmore offered only the B.A. and B.S.E.\(^7\)

The 1890s was a decade of experimentation at Bucknell, Princeton, and Swarthmore. Each created programs parallel to the B.A., temporarily saving its traditional form by providing alternatives for students who would not study the classical languages. The alternative bachelor degrees in philosophy, letters, or literature preserved some of the ideals of liberal culture while permitting some specialization. Electives allowed students to sample the new academic areas but provided neither the depth nor the direction needed in a long-term solution. There was surprising curricular diversity within and among the colleges.

Between 1900 and World War I, a new curricular consensus emerged. The chaos caused by the widespread adoption of electives in the 1890s inspired attempts to find a new curricular structure. The most important solution was the major study, usually combined with distribution requirements or prescribed courses for freshman year. Several years before President Lawrence Lowell adopted distribution and concentration for post-Eliot Harvard, Swarthmore and Princeton had already instituted such programs. Franklin and Marshall followed suit in 1915. The distribution requirements preserved a version of the broad preparation that had been the hallmark of a liberal education. Only engineering students were exempt from cross-disciplinary distribution requirements. Concentration in a major discipline was the new ingredient that reflected the necessity of specialization in the face of the explosion of knowledge. Bucknell was the exception, continuing parallel curricula into the 1920s. The concept of major and minor studies, the common freshman curricula, and the standardization of high school preparations revived a sense of direction in curricular thinking, which had lost its way at the turn of the century.

A new curricular structure was necessitated by the expansion of

\(^7\) Swarthmore College, *Catalogue*, 1885–86 to 1919–20; Swarthmore College, *The Register of Swarthmore College*, 1862–1914 (Swarthmore, Pa., 1914), 54–79; Swarthmore College, Faculty, Minutes (Friends Historical Library), 15 October 1902.
knowledge in the sciences and the social sciences. Before 1890 teaching in each branch of science was limited to a few courses taught by lecture and demonstration. But around 1890 the colleges started constructing laboratories, modernizing observatories, and hiring more university-trained scientists, all of which facilitated more specialized instruction. Areas of knowledge formerly covered by one instructor divided again and again as department offerings increased in number and depth. Typically, areas covered by a two- to four-term sequence in 1890 expanded to eight to ten courses by 1915. Bachelor of science programs became more distinctively scientific and ceased to be refuges from the classics. On the other hand, the vast majority of students now studied less science; complexity segregated the “two cultures” of arts and sciences. 

In the 1890s the social sciences gained academic respectability. Systematic attempts to cover the areas once contained in the broad mental and moral philosophy courses of senior year became regular academic courses and eventually developed into departments. For instance, after Anselm Hiester took a two-year leave from Franklin and Marshall to study political science at Columbia University, the college created a department for his specialty. Hiester replaced his traditional course in political economy with courses that reflected the more relativistic historical school of thought. Adding the scientific study of social phenomena to the rapidly expanding curricular order helped make a prescribed curriculum untenable. Social sciences became one of the areas that all nonengineering students sampled and in which some found a major.

Between 1890 and 1920 the role of colleges in professional preparation was fundamentally reexamined. The desire to attract more upper-middle-class students tempted colleges to offer courses that applied more directly to professional careers. The classical curriculum had always been viewed as preparation for the professions, but


the relationship was based on disciplining the mind for further study rather than providing professionally applicable content. As the old curricular models collapsed in the 1890s, the question of the relationship between colleges and professional preparation was reopened.

After dabbling with vocationalism, the colleges withdrew to a pre-professional role in medicine, law, and business. Colleges found themselves competing with proprietary medical schools for students. This competition for future doctors gave science professors a stronger voice in the fight for resources and curricular reform. Bucknell, Princeton, and Swarthmore experimented with separate premedical programs and certificates, but all three dropped them after the influential Flexner Report of 1910 criticized such programs. All four colleges modified their curricula for premedical students in line with Flexner's recommendations, stressing general academic preparation rather than vocationalism. Similarly, the rising demand for college-trained lawyers and businessmen encouraged growth in political science and economics departments rather than in vocationally designed curricula, except at Bucknell. Princeton declined an offer from the Wanamaker family to begin a business program, and Franklin and Marshall offered no business courses until the 1920s. 10

Swarthmore, Princeton, and Franklin and Marshall were hesitant to offer explicitly technical or professional preparation except in their engineering programs. In the 1890s Swarthmore backed away from its earlier vocationalism and confirmed that direction by adopting Swain's proposals for a uniform freshman curriculum and major studies in 1902. Several years later Swarthmore resumed teacher training, two decades after abolishing a freestanding normal program. This time the work was to be done in an education department and was treated as an academic major within the liberal arts curriculum. 11 Franklin and Marshall continued to base "its claim for patronage and support on the advantages which it offers for obtaining a thorough liberal education." 12 At Princeton, President Patton was willing to allow the senior year to become virtually a year of professional school, but Wilson reemphasized liberal education. 13 Fearing

10. See Chapter 10 for full discussion of the colleges' changing role in professional training.
the narrowness that might stem from premature exposure to occupational concerns, he directed the School of Science away from applied science. At all three colleges, liberal arts rather than explicit professional or vocational work dominated by World War I, except in engineering.

But at Bucknell, President Harris designed more explicitly vocational courses of study, hoping to increase the size of the school and the wealth of the alumni body. For decades the university’s stated purpose had been “to impart sound instruction in all non-professional studies” through “the established college curriculum.” Immediately after his inauguration in 1889, Harris began to change the orientation. A confidant complained to former President Hill that, in the next semester, “special instruction will be furnished at that time for all who will come here to receive it. . . . We have done a vast amount of advertising on these particular lines, some of which I have thought was far from being judicious.”

In 1901 the board of trustees approved Harris’s plan to affiliate with professional schools. Using local lawyers to teach legal courses and regular professors for the political science and economics courses, his jurisprudence curriculum permitted a full year of legal studies to be applied to the B.A. As with the medical program, Harris hoped to attract sons of the profession’s practitioners. He aggressively recruited normal school graduates and other prospective teachers, and courses were correlated with the certification requirements of New York, New Jersey, and Pennsylvania. An all-female home economics track, begun as a two-year course in 1914, became a four-year degree program in 1917. Engineering began on a rudimentary level in the 1890s. The first formal program, civil engineering, opened in 1902 and was soon followed by electrical, mechanical, and chemical engineering. About 40 percent of Bucknell graduates in the decade before World War I took their degrees in the jurisprudence, premedical, engineering, and home economics programs.

The traditional curriculum continued to attract many students, but Harris’s vocationalism increasingly made Bucknell an exception among the four colleges. Bucknell advertised itself as “one of the most progressive of all colleges in recognizing and giving due place to the new

and important branches of Sociology, Economics, Finance, Banking, railroad transportation, Municipal Government and kindred subjects. In the 1920s Harris's successor instituted distribution and concentration and reduced vocationalism, bringing Bucknell's curriculum closer to that of the other three colleges.

The colleges retained a small place in the curriculum for teaching about moral issues, especially from the perspective of their original constituencies. Some of the content of the traditional senior moral philosophy course was preserved long after the course formally disappeared. In 1899, Swarthmore created a Department of Biblical Literature and required every student to take one of its courses. Its departments of philosophy and history gave a pacifistic orientation to their teachings; in 1906, the history department initiated a course entitled “The Beginnings of Quakerism.” Franklin and Marshall retained a senior course composed of one term each of ethics and political economy. After the latter was absorbed into the new Department of Social and Political Science, it was replaced by a semester of Bible study on the rationale that knowledge of the Bible is “an essential element of all true culture.” At Princeton, a remnant of McCosh’s courses survived in a required sophomore course on logic, psychology, and general philosophy. At Bucknell, John Harris continued to teach a required senior ethics course until his retirement in 1919.

Presidents and older professors made it clear that new standards of scholarship could not be allowed to threaten basic Christian beliefs. A senior professor at Princeton declared that the “pursuit of knowledge for its own sake shall not be held to imply that a culture that

17. Babbidge, 188–200; Swarthmore College, Board of Managers, Minutes (Friends Historical Library), 6 December 1897; Swarthmore College, Committee on Instruction, Minutes (Friends Historical Library), 4 May 1906; Swarthmore, *Catalogue*, 1899–1900 to 1915–16.
20. Harris, 54, 77–79.
has been vitalized by religion is not the best thing for man.”21 President Patton asserted his belief in “university freedom” but defined it so that skepticism and atheism fell beyond freedom’s pale.22 President Harris swore that at Bucknell he “would have no instruction in any department indifferent to Him” and that Christianity should “pervade all instruction and every admonition.”23 Similar statements were made by representatives of Swarthmore and of Franklin and Marshall.24 Younger faculty and later presidents usually settled for bland statements asserting the compatibility of scholarship with religiously and socially respectable positions. Over time, faculty delegated the burden of breeding moral gentlemen to campus life, rather than to the classroom.

The definition of mental discipline, central to the traditional conception of liberal education, was being challenged by the new subject areas. Whereas the humanities and mathematics were traditionally considered to be superior for developing intellectual power, after 1890 the sciences and social sciences gained equal places. President Harris reversed the classical approach and asserted that, of two subjects of similar disciplinary power, the one dealing with the most recent events was the most valuable.25 Even a staunch classicist like Professor Andrew West of Princeton changed his views. In 1884 he vigorously asserted the classics’ superiority, but by 1906 he accepted the claims of the social and physical sciences and merely argued against technical subjects.26 A colleague in the Department of Biology

23. Harris, 104.
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maintained that "a purely classical education and a purely scientific one are equally illiberal"; a broad and liberal training could only result from a combination of the two. 27 Within this broader definition of discipline, the new subjects and the elective system were reconciled in a modified definition of liberal education. Mental training was still central, but it now was acknowledged that a wider variety of subjects would teach students to think.

Thus the colleges solved the threat to their existence posed by the disintegration of the classical curriculum. With their traditional purpose discredited, the colleges were in danger of having no distinctive curricular role. After experimenting with various combinations of electives and professional courses around the turn of the century, a new consensus emerged on curricular structure and professional education. The distribution and concentration approach to liberal education retained the breadth of training that graduate schools could not give, while providing depth that was beyond the scope of high schools. As the high schools, graduate programs, and professional schools grew, colleges secured a curricular role as the intermediary between secondary schools and graduate or professional studies, a role without an equivalent in European higher education. Except for engineers, Franklin and Marshall, Princeton, and Swarthmore students had to delay specifically vocational preparation until after the baccalaureate degree. Bucknell was the exception, maintaining vocational options into the 1920s. Well before World War I, the colleges had regained a sense of direction in their academic programs after the period of confusion brought on by the explosion of knowledge.

Their experiences do not fit the picture of disarray and vocationalism presented in the most prominent account, Frederick Rudolph's Curriculum. The turn of the century certainly was a curricular watershed for these four colleges. Classical languages and literature declined, students gained more choice, and "faculty psychology" was abandoned for more flexible theories of learning. The confusion and experimentation as the prescribed curriculum broke down led quickly to the adoption of the structured choice of concentration and distribution. The colleges searched for and found a rationale that ac-

accommodated the new disciplines and greater depth while maintaining a shared core. Rudolph asserts that "colleges that had once been so much alike ... were no longer ideologically and stylistically on speaking terms." To the contrary, these four colleges increasingly spoke the same curricular language after 1900.