BOOK REVIEW

THE MARKETING OF HIGHER EDUCATION: THE PRICE OF THE UNIVERSITY'S SOUL†

Risa L. Lieberwitz††

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[†] Title inspired by Bernadette Devlin, The Price of My Soul (1969).

^{††} Associate Professor of Labor Law, School of Industrial and Labor Relations, Cornell University. I would like to thank Gary Simson for his helpful and insightful comments on drafts of this Book Review. I would also like to thank Ronald Ehrenberg for inviting me to present a paper at the Cornell Higher Education Research Institute conference, "Science and the University," in which I developed many of the ideas presented in this Book Review.

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Introduction

Coinciding with the dominance of private markets on a global scale, universities have expanded their role as market actors.1 Universities have increased their long-existing commercial activity in sports programs² as well as in the sale of apparel and other goods with the university name and logo.3 Even more striking are the universities' private-market ventures during the past two decades in relation to the core functions of teaching and research. Capitalizing on the commercial appeal of the genetics "revolution" of the mid-1970s,4 universities have expanded their efforts to patent and license inventions discovered by university researchers.⁵ The marketing of university research has been aided by federal legislation, particularly the Bayh-Dole Act of 1980,6 which permits and encourages universities to seek patents on federally funded research results.7 The Bayh-Dole Act laid the foundation for increased university-industry relations through corporate licensing of university-owned patents.8 This contact, in turn, led to large-scale corporate funding of university research in exchange for guarantees of exclusive corporate licenses to resulting research patents.9 In the realm of teaching, universities have adopted business models in relation to faculty hiring and program development. For example, universities have dramatically increased employment of nontenure-track faculty, including adjunct faculty and graduate student teachers, with a corresponding decrease in available tenure-track positions. 10 The latest commercial activity in education is universities' cre-

 $^{^1}$ See Derek Bok, Universities in the Marketplace: The Commercialization of Higher Education 4–7 (2003).

² Id. at 35-39.

³ Id. at 2, 37.

⁴ See Sheldon Krimsky, The Profit of Scientific Discovery and Its Normative Implications, 75 CHI.-KENT L. REV. 15, 17 (1999) (explaining that the 1973 discovery of recombinant DNA led to the "transition from an analytic to a synthetic science").

⁵ See infra notes 123-33 and accompanying text.

⁶ Pub. L. No. 96-517, 94 Stat. 3015 (1980) (codified as amended at 35 U.S.C. §§ 200-212 (2001)).

⁷ See Rebecca S. Eisenberg, Public Research and Private Development: Patents and Technology Transfer in Government-Sponsored Research, 82 VA. L. REV. 1663, 1665 (1996).

⁸ See infra notes 123-33 and accompanying text.

⁹ See id.

¹⁰ See Stanley Aronowitz, The Last Job in America, in Chalk Lines: The Politics of Work in the Managed University 216–17 (Randy Martin ed., 1998).

ation of for-profit spin-off corporations to engage in the business of Internet-based distance learning programs.¹¹

These commercialization trends have been the focus of recent scholarly commentary from such fields as history, sociology, education, and law.¹² Derek Bok, former President of Harvard University and former Dean of Harvard Law School, joins the debate in his book *Universities in the Marketplace: The Commercialization of Higher Education*, inquiring "why this [commercialization] trend has developed, what dangers it poses for universities, and how academic leaders can act to limit the risk to their institutions."¹³ Bok defines commercialization as "efforts within the university to make a profit from teaching, research, and other campus activities."¹⁴ He begins his study of commercialization trends with the oldest of commercialized university activities—athletics—and then expands the discussion to include more recent commercial activities that involve research and teaching.¹⁵

In the preface, Bok describes a commencement speech that he delivered to the Harvard graduating class of I988.¹⁶ This speech recounts a series of dreams in which he faced the challenge of finding adequate funding to cover the rising costs of university programs. What began as a dream—with Bok accepting a large loan from a wealthy alumnus to pay for worthwhile academic programs, faculty salaries, and university facilities—ends as a nightmare of ever-broadening intrusion by outside commercial and corporate interests.¹⁷ Faced with escalating loan payments, the university turns to new commercial activities to generate profits.¹⁸ Bok explains that he created this ficti-

¹¹ See Risa L. Lieberwitz, The Corporatization of the University: Distance Learning at the Cost of Academic Freedom?, 12 B.U. Pub. 1nt'l L.]. 73, 74 (2002).

¹² See, e.g., Capitalizing Knowledge: New Intersections of Industry and Academia 13–17 (Henry Etzkowitz et al. eds., 1998) (addressing growth in university-industry relations, including spinoff firms from universities, strategic research alliances, and international comparisons); Sheldon Krimsky, Science in the Private Interest: Has the Lure of Profits Corrupted Biomedical Research? (2003) (discussing the negative effects of monetary incentives for academic scientists on the role of the university); David F. Noble, Digital Diploma Mills: The Automation of Higher Education (2001) (setting out his critique of the effects of technological change on education); Sheila Slaughter & Larry L. Leslie, Academic Capitalism: Politics, Policies, and the Entrepreneurial University 3–4 (1997) (outlining the book's efforts to address the changes in faculty and institutions of higher education); Lieberwitz, supra note 11, at 73–77; Randy Martin, Education As National Pedagogy, Introduction to Chalk Lines, supra note 10, at 19–26 (summarizing the essays in the collection as "cast[ing] a wide net over the current situation of academic labor in the United States").

¹³ Box, supra note 1, at vii.

¹⁴ Id. at 3.

¹⁵ See id. at 35-56 (discussing athletics' influence on university funding); id at 57-78 (explaining the use of corporate funding for university research); id. at 79-98 (addressing the recent lure of a profit-making online education alternative).

¹⁶ *Id.* at vii-x.

¹⁷ Id. at viii-ix.

¹⁸ See id.

tious dream for the commencement speech to warn students, parents, and alumni of the threats that university commercialization poses to academic values.¹⁹ He frames both the dream and the book's inquiry in terms of his concern that commercial activities in universities may interfere with universities' traditional character.²⁰

Although Bok introduces his book in the context of the night-marish possibilities of university commercialization, a full reading reveals that Bok is actually quite positive about the role of commercial activities in the university. He argues that universities should take a balanced approach in deciding whether to engage in market activities and cautions "against deep-seated biases either for or against corporations and market-based solutions"²¹ to university financial problems. This call for balance, though, encourages university commercial ventures under the right circumstances.²² Bok is optimistic about the value of the profit motive in enhancing the university's efforts to fulfill its mission, particularly regarding academic research.²³ He believes that the application of business principles of efficiency, quality improvement, and profit incentives can benefit both research and teaching.²⁴

This Book Review critiques Bok's advocacy of university market activities, arguing that they represent a major shift in the university's traditional mission of engaging in research and teaching for the public good. Bok promotes the positive value of university commercial activities by applying a narrow definition of university commercialization. He then fails to fully analyze the damage to faculty academic freedom and the university's public mission of even this narrowed scope of university commercial activities. Part 1 of this Review describes Bok's approach to university commercialization, comparing his positive views of university commercial activities with the historically based presumption against intrusion of the business model into the university. This Part also presents Bok's recommendation of the process that the university should follow in deciding whether to enter into commercial activities. Part II describes Bok's conclusions concerning the merits of specific commercial activities in the university: athletics, research, and teaching.

Part III critiques Bok's narrow definition of university commercialization and his failure to evaluate commercialization trends within a broader historical and institutional context. This Part argues that

¹⁹ Id. at x.

²⁰ *Id.* at vii, x.

²¹ Id. at 33-34.

²² See id. at 32-34.

See id. at 15-16; infra notes 63-66, 134-39 and accompanying text.

²⁴ Вок, *supra* note 1, at 24–29.

Bok's restricted approach inaccurately describes the scope of commercialization trends. Moreover, Bok fails to apply his own recommendation that universities follow a broad-based decisionmaking process in evaluating proposals for university commercial activities. Moreover, in restricting his definition of university commercialization, Bok omits discussion of important aspects of commercialization trends.

Part IV analyzes the aspects of university commercialization that Bok does not address, including a broader analysis of the privatization of the university's mission. This evaluation, in turn, requires a deeper analysis of university patenting and licensing of academic research results, large-scale corporate funding of university departments and research programs, university adoption of for-profit corporate structures, and the weakening of faculty academic freedom and tenure. Had Bok included these discussions in his analysis, he would likely have found it more difficult to reach such positive views of university commercial activities.

Ι

Bok's Approach to University Commercial Activities: Tipping the Balance in Favor of University Commercialization

The commercial aspects of intercollegiate sports are well known to most readers: financing of athletic facilities, competition for athletes, radio and television coverage, corporate advertising in sports programs, and contracts with sports equipment companies.²⁵ Recent commercial activities in research and teaching may be less familiar. In the research category, Bok focuses on several developments that have increased university-industry contacts since the mid-1970s: expanded patenting and licensing activity by universities as encouraged by the Bayh-Dole Act of 1980, which permits universities to patent inventions resulting from federally funded research;26 growth in corporate funding of university science and medical programs;²⁷ growth in individual faculty consulting and research contracts with corporations;28 and increased faculty entrepreneurial activity as founders of start-up corporations.²⁹ In the teaching category, Bok primarily addresses the phenomenon of Internet-based distance learning on a for-profit basis.³⁰ However, he also raises concerns with corporate funding in exchange for public connections to the university—e.g., pharmaceutical

²⁵ See id. at 37-38.

²⁶ See id. at 11-12, 58-60, 62-63, 77, 139-42.

²⁷ See id. at 57-78, 143-44, 151-53.

²⁸ See id. at 60-62, 66-76, 143-51.

²⁹ See id. at 61, 67, 153-55.

³⁰ See id. at 79-98, 169-72.

and medical supply companies funding continuing medical education in exchange for corporate selection of company-paid lecturers.³¹

As previously noted, Bok's "balanced" approach to university commercial activities favors university market ventures. On one hand, he is optimistic about the value of the profit motive to enhance universities' efforts to fulfill their missions, concluding that "new opportunities for earning money have clearly helped make universities more attentive to public needs." For example, Bok finds that the profit motive underlying the Bayh-Dole Act has enhanced academic research through the growth in university patenting and licensing activities. He concludes that teaching could improve by using the profit motive to encourage faculty to adopt innovative teaching methods. 4

On the other hand, Bok cautions that "corporate methods and market models" including business principles of consumer demand, efficiency, and profit maximization—are not appropriate for decisions related to academic matters, such as choosing a curriculum or a research agenda. Ultimately, Bok concludes, "the ways of the marketplace are neither consistently useful nor wholly irrelevant in trying to improve the performance of research universities. That is what makes the problem of commercialization difficult. Educators must use their own judgment in deciding when to pursue opportunities for profit or adopt other business practices." 37

Bok's perspective is clarified by viewing opinions of university commercialization along a spectrum of four positions: (1) commercial activity is always bad; (2) commercial activity is bad, but justifiable under current economic constraints in higher education; (3) commercial activity is good, within limits that avoid the excesses of private market activities; and (4) commercial activity is always good. Bok's views place him in the third position because he supports market activities in the university, within limits. He favors incorporating profit incentives into traditional university functions of research and teaching while placing limits on profit-seeking ventures to avoid excessive conflict with academic values such as free and open scientific inquiry, collegiality and trust, scholarly integrity, and public moral standing of the university.

Locating Bok's position on this spectrum facilitates comparison of his philosophy with others. In supporting market-based universityindustry relations with some restrictions, Bok's views differ from those

³¹ See id. at 173-78.

³² *Id.* at 15.

³³ See id. at 28, 76-77, 140-41; infra notes 62-64, 134 and accompanying text.

³⁴ See Box, supra note 1, at 27-28.

³⁵ Id. at 29.

³⁶ See id. at 29-32.

³⁷ *Id.* at 32.

who view university commercial activities as intrinsically bad.³⁸ Individuals who believe that market-based ventures are always at odds with academic values base this opposition on the clash of private-market and university values.³⁹ Private-market activity values profit-making in the private interest of the market actor.⁴⁰ Business employers also value unilateral control of property—including product design, trade secrets, and employment decisions affecting employees—to increase their power in the market system.⁴¹ Unilateral control, secrecy, and private gain contradict the academic values of dissemination of ideas, academic freedom, faculty governance, and public interest mission.⁴² Critics strongly opposed to university commercialization, therefore, find it illusory to believe that private market-based ventures in the university can coexist with academic values.⁴³

Those holding the second position on the spectrum recognize the inconsistency between academic values and market values but believe that such harm is justified under certain circumstances.⁴⁴ Even if

³⁸ See, e.g., infra note 43.

³⁹ Cf. Krimsky, supra note 4, at 38–39 (articulating how the commercialization of scientific research has compromised the traditional norms of scientific practice at universities).

⁴⁰ See Stanley Aronowitz, The Knowledge Factory: Dismantling the Corporate University and Creating True Higher Learning 158 (2000) (showing how universities become driven by the bottom line when corporatized).

⁴¹ See, e.g., infra notes 181–83.

For excellent discussions of the traditional communal values of academic science, see Rebecca S. Eisenberg, *Proprietary Rights and the Norms of Science in Biotechnology Research*, 97 YALE L.J. 177, 181–84 (1987); Arti Kaur Rai, *Regulating Scientific Research: Intellectual Property Rights and the Norms of Science*, 94 Nw. U. L. Rev. 77, 88–94 (1999); *see also* Krimsky, *supra* note 4, at 29–39 (discussing "[t]he impact of university-industry relationships on the behavior and values of scientists").

⁴³ See Aronowitz, supra note 40, at 158-59 (accusing universities of confusing the distinctions among "training, education and learning" by prioritizing receipt of grant money over student preparedness); Noble, supra note 12, at 61-82 (using UCLA's relationship with a private company, designed to enable the delivery of distance education as "a cautionary tale in the commodification of higher education," id. at 80); Krimsky, supra note 4, at 35, 39 (arguing that the privatization of medical knowledge through patenting results in duplicative research that is contrary to traditional communal norms); Lieberwitz, supra note 11, at 134-35 (calling the corporatization of education "inimical to principles of academic freedom"); Risa L. Lieberwitz, University Science Research Funding: Privatizing Policy and Practice, 65-70 (Apr. 21, 2003), at http://www.ilr.cornell.edu/cheri/conf/chericonf 2003/chericonf2003_08.pdf (focusing on university research in life sciences to explore whether increasingly close ties with industry threaten fundamental academic values).

⁴⁴ See David Bollier, Preserving the Academic Commons, Keynote Remarks at the American Association of University Professors 89th Annual Meeting (June 13, 2003), at http://web.cornell.edu/UniversityFaculty/ (posted at Forums/Discussions, Corporate Strategic Alliances) (strongly criticizing commercialization of the university, including patenting of academic research, as harmful to the public domain and the public interest, but also identifying a legitimate role for university-industry partnerships and technology transfer in the social contexts of tight university budgets and advanced technologies.); Arti K. Rai & Rebecca S. Eisenberg, Bayh-Dole Reform and the Progress of Biomedicine, 91 Am. Scientist 52, 55, 57 (2003) (expressing strong "[c]oncern about an 'anticommons' or 'property rights thicket'" resulting from the proliferation of patents and exclusive licenses on feder-

these critics would sometimes agree with supporters of commercialization concerning universities' decisions to enter specific market ventures, their analysis proceeds from a philosophically different starting point.⁴⁵

Bok provides a decisionmaking process to guide university officials in choosing between commercial activities that will benefit the university and those that will harm academic values.⁴⁶ He recognizes that the lure of potential profits in the face of rising costs and funding needs may induce university officials to accept proposals for new or expanded profit-based programs.⁴⁷ In contrast, it may be easier for university administrators to ignore the cumulative negative impact on academic values from profit-motivated programs, given the less tangible nature of values such as public trust, academic standards, and free exchange of ideas and information.⁴⁸ To avoid this ad hoc process favoring short-term profits over long-term academic institutional integrity, Bok recommends that universities "look at the process of commercialization whole, with all its benefits and risks, and then try to develop clear rules that are widely understood and conscientiously enforced."49 Bok counsels, therefore, that "[u]nless the system of governance has safeguards and methods of accountability that encourage university officials to act appropriately, the lure of making money will gradually erode the institution's standards and draw it into more and more questionable practices."50

While cautioning against the attraction of potential profits, Bok's further description of the university governance system reinforces his positive evaluation of university market activities. Bok envisions the faculty acting as partners with the administration to choose and design commercial ventures that are both profitable and consistent with academic values.⁵¹ In Bok's view, fostering faculty debate can save the university from entering into "hasty, misguided profit-seeking ventures,"⁵² though the forms of faculty governance may need to be modified to "fit the special circumstances of new entrepreneurial"

ally funded basic research, but describing a need for patents and licenses for research discoveries that "undoubtedly require substantial commercial investment to become reliably mass-produced for widespread distribution").

⁴⁵ See supra note 39 and accompanying text.

⁴⁶ See Box, supra note 1, at 118-21.

⁴⁷ See id. at 119-20.

⁴⁸ See id. at 105-18.

⁴⁹ Id. at 121.

⁵⁰ Id. at 185.

⁵¹ Id. at 189. Bok presents this vision as a query: "How can [university governance] combine the desire of energetic university leaders to innovate and adapt to new pressures and opportunities with the faculty's sensitivity to the importance of preserving basic academic values?" Id.

⁵² Id. at 192.

ventures."⁵³ Moreover, Bok concludes that faculty participation in the design and implementation of commercial activities affecting teaching and research will more likely lead to program development consistent with academic values.⁵⁴

II Bok's Line Drawing: Good and Bad Commercial Activities

A. Athletics

Bok distinguishes particular university commercial activities that he views as beneficial from those that he views as harmful to academic values. Though he recognizes the difficulty of reforming deeply entrenched intercollegiate sports programs, he believes that meaningful reforms are both possible and necessary, including "measures that strengthen the will to protect academic values and lessen the incentive to win at any price." Bok's recommendations focus on agreements among colleges to adopt measures such as sharing athletic revenues; 68 setting minimum admissions requirements; 77 eliminating freshman eligibility, "at least in the high-pressure, revenue-producing sports; 88 abolishing athletic scholarships; 91 limiting the influence of coaches in admissions decisions; 60 and scheduling games not to interfere with academic courses.

B. Research

Bok does not recommend amending or repealing the Bayh-Dole Act of 1980, which permits universities to patent inventions resulting from federally funded research.⁶² Instead, he concludes that the profit motive in academic research actually contributes to the public interest by encouraging universities "to scour their labs"⁶³ for research that industry could "put to practical use"⁶⁴ by licensing university-owned patents. Bok objects, however, to excessive profit-seeking behavior that interferes with advancement in academic research or un-

⁵³ Id.

⁵⁴ See id. at 193.

⁵⁵ *Id.* at 129.

⁵⁶ *Id.* at 129–30.

⁵⁷ Id. at 137.

⁵⁸ Id. at 132.

⁵⁹ Id. at 135.

⁶⁰ *Id.* at 137.

 ⁶¹ Id. at 133, 137.
 62 See Pub. L. No. 96-517, 94 Stat. 3015 (1980) (codified as amended at 35 U.S.C. §§ 200-212 (2001)).

⁶³ Bok, supra note 1, at 141.

⁶⁴ Id. at 28.

dermines public trust in universities.⁶⁵ He notes the harms resulting from expanded university-industry contact through technology transfer and corporate funding of university research: undue secrecy, conflicts of interest, and corporate influence over academic research.⁶⁶ Bok's recommended reforms envision university administrations as buffers between individual faculty and corporate funders, monitoring relations between faculty and corporations that may undermine academic values. To this end, Bok counsels universities to review faculty-industry research funding contracts and "resist" provisions that require excessive secrecy after faculty completion of research, limit researchers' communications with colleagues, or provide corporate funders with the opportunity to influence research findings.⁶⁷

Much of Bok's research discussion addresses conflicts of interest by individual science faculty that "arise in 'situations in which financial or other personal considerations may compromise, or have the appearance of compromising, an investigator's professional judgment in conducting or reporting research.'"68 Only in the case of research involving human subjects does Bok recommend prohibiting research by faculty with financial interests in corporations that are funding the research.⁶⁹ For other research, though, he concludes that required disclosure of potential conflicts of interest will adequately protect academic values of objective and disinterested research and public trust. 70 Bok is most concerned with disclosures of faculty financial interests in corporations, such as stock ownership or ongoing consulting fees that may be affected by that faculty member's research findings.71 He describes, in particular, the conflict of interest present in faculty involvement in clinical trials of drugs manufactured by pharmaceutical manufacturers who fund the faculty member's research.⁷²

Bok is less concerned with conflicts of interest at the institutional level of the university. He does criticize universities who bid on corporate research contracts for clinical drug trials, particularly in light of the questionable academic value of such research.⁷³ Bok also proposes a partial reform of university technology-transfer practices in relation to federally funded research, recommending against exclusive

⁶⁵ Id. at 30-32.

⁶⁶ *Id.* at 64–76, 141–56.

⁶⁷ Id. at 143-44.

⁶⁸ Id. at 66-67 (quoting Ass'n of Am. Med. Colls., Guidelines for Dealing with Conflicts of Commitment and Conflicts of Interest in Research, 65 Acad. Med. 491 (1990)).

⁶⁹ Id. at 145.

⁷⁰ See id. at 146-49.

⁷¹ See id. at 67 (arguing that the appearance of bias due to a faculty member's financial interest is enough to undermine his or her credibility).

⁷² See id. at 67–75.

 $^{^{73}}$ See id. at 70–71, 150–51 (noting that these monies are often sought for non-academic purposes).

corporate licenses on university-owned patents for basic research tools that are important in early-stage "upstream" science research.⁷⁴ Such exclusive corporate control on basic research tools impedes further research advances.⁷⁵ He suggests that congressional action could support this institutional reform by providing the National Institutes of Health (NIH) with authority to restrict fund recipients from issuing exclusive licenses on such federally funded basic research tools.⁷⁶

Bok pays little attention to the faculty and university conflicts of interest created by the recent phenomenon of large-scale corporate funding of entire departments or research programs. He describes only the well-publicized example of \$25 million of funding over five years from Novartis Company to the Department of Plant and Microbial Biology of the University of California at Berkeley.⁷⁷ In exchange, Novartis received seats on the departmental research committee and exclusive licenses to the university-owned patents on one-third of the research conducted by the department.⁷⁸ Because he concludes that such large-scale corporate funding is unlikely to proliferate, Bok finds no current need for reform to limit such funding arrangements.⁷⁹

C. Teaching

In his initial chapter on teaching, Bok counters arguments that market-based distance learning for profit will undermine faculty governance and lead to exploitation of faculty involved in such programs.80 In Bok's view, such arguments ignore the faculty's power and the market's role in providing a voice for students concerning their curriculum.81 Further, Bok presents the benefits of using distance learning profits to support traditional teaching and research programs on campus.82 Yet, in his second chapter on teaching, Bok recommends that universities avoid the "treacherous course"83 of "try[ing] to use the Internet for profit, especially when they join with venture capitalists to achieve their ends. Even if [the universities] retain a controlling interest in the new distance learning organization, their partners will insist on certain rights to protect their invest-

⁷⁴ See id. at 142.

⁷⁵ Id.

⁷⁶

Id. at 151-52. Bok notes that this funding comprised approximately thirty to forty percent of the department's entire research budget. Id. at 151.

⁷⁸ Id.; see Eyal Press & Jennifer Washburn, The Kept University, Atl. Monthly, Mar. 2000, at 39, 39-40.

See Box, supra note 1, at 152-53.

⁸⁰ Id. at 92-98.

⁸¹ Id. at 95-98.

⁸² Id. at 97.

⁸³ Id. at 169.

ments."84 Further, Bok asserts that "universities . . . make a mistake if they launch . . . academic initiatives . . . with the primary aim of making a profit rather than serving some substantial academic purpose."85 Any revenues gained through distance learning programs in a non-profit organizational structure can help improve educational quality for all students.86

Ш

Bok's Perspective: A Narrowed Vision Produces a Positive Outlook

A. Bok's Restricted Definition of the Scope of University Commercialization

In identifying "good" commercial activities, such as increased university patents and licenses, and "bad" commercial activities, such as pharmaceutical funding of continuing medical education, Bok fails to take his own advice to "look at the process of commercialization whole, with all its benefits and risks."87 Had he seriously engaged in this analysis, he would have found it harder to sustain his positive outlook on the growth of commercial activities in the university. Bok's argument for using a broad-based, long-term decisionmaking process presents, by far, the strongest analysis in the book. In counseling university officials to consider the cumulative long-term effects of commercialization on intangible academic values, Bok recognizes that the concrete nature of immediate demands for revenue may induce university officials to respond positively to proposals for new or expanded profit-based programs.88 In contrast, the negative impact on academic values may be easier for university administrators to ignore, given the less tangible nature of values such as openness of academic exchanges and importance of maintaining the public trust. Bok thus counsels replacing an ad hoc process—in which academic values will invariably lose—with a broad-based structure of institutional decisionmaking that considers the full scope, depth, and reach of potential harm to academic values resulting from university market activities.89

⁸⁴ Id.

⁸⁵ Id. at 166.

⁸⁶ See id. at 171–72.

⁸⁷ See id. at 121; see supra notes 47-50 and accompanying text.

⁸⁸ See supra notes 46–48 and accompanying text. Bok also recognizes that even the lure of short-term profits may be illusory as universities launch programs that are touted as providing great profit potential but that fail to provide sufficient revenues to cover even their own costs. Boκ, supra note 1, at 100–01. This has been the case for universities entering failing, for-profit distance learning ventures and for universities yielding disappointing revenues through expanded technology transfer offices to patent and license faculty research. *Id.*

⁸⁹ See supra notes 49-50 and accompanying text.

The problem is that Bok himself refuses to "look at the process of commercialization whole."90 The contradiction stems from Bok's selfimposed restriction on the scope of commercial activities that he will consider. In defining commercialization to refer only to "efforts to sell the work of universities for a profit,"91 Bok explicitly excludes from his definition—and, therefore, from his analysis—the impact of developments that other critics have included as part of the commercialization or corporatization trends.92 Such developments include the expansion of commercial programs or vocational courses, the increase in teaching by adjunct faculty and graduate students, and the growing use of corporate business methods by university administrations. 93 In addressing only the financial aspects of such trends, Bok fails to confront the institutional nature of changes resulting from the university's adoption of a corporate business model. Such changes flow from the university's profit-seeking activities together with changes in employment, such as the weakening of the tenure system that protects faculty job security and academic freedom.⁹⁴ In omitting these issues from his definition of commercialization, Bok inadequately addresses the problem of university commercialization. The excluded developments import market values into university policies and practices. Each development should be analyzed individually as part of the broader commercialization trend. Furthermore, the definition of commercialization must include all relevant issues in order to reflect the cumulative impact on academic values resulting from the full range of university commercial activities. Certainly, this broader scope is more consistent with Bok's call for a broad-based and long-term analysis to safeguard academic values.

Bok explains his rejection of a broader scope of analysis: "Often, words such as commercialization, corporatization, or commodification are

⁹⁰ Вок, *supra* note 1, at 121.

⁹¹ Id. at 3.

⁹² See id. For examples of critiques of university corporatization that address developments excluded by Bok, see Aronowitz, supra note 40, at 158–64 (critiquing the modern university in the United States for using the business corporation as an institutional model and for serving corporate interests through increased vocational curricula and commercial research programs); Chalk Lines, supra note 10 (critiquing the influence of corporate business practices and the ideology of global capitalism on the university in regard to faculty employment, distribution of resources to academic programs, commercialization of research, and faculty-graduate student relationships); Noble, supra note 12 (linking university administrators' advocacy of distance learning to their attempts to restrict faculty employment and autonomy); Bill Readings, The University in Ruins 11 (1996) (critiquing the transformation of the university into "a bureaucratically organized and relatively autonomous consumer-oriented corporation"); Lieberwitz, supra note 11, at 85–87, 128–30 (describing the corporatization of the university as the cumulative effect of the application of a business model to weaken the tenure system, increase the commercialization of research, and enter into for-profit education ventures).

⁹³ See supra note 92.

⁹⁴ See infra notes 228-31 and accompanying text.

employed for rhetorical purposes to capitalize on the widespread distrust of business and business methods in academic circles."⁹⁵ In trivializing broader critiques of university commercialization by labeling them as mere rhetorical devices, Bok reinforces his own positive views of university-industry relations. Bok thus separates himself from scholars to his political left, particularly those in opposition to all university commercial activity.⁹⁶ As a result, however, Bok fails to present a complete and integrated analysis of the sources and scope of the commercialization of the university.

B. Bok's Restricted Analysis of the Reasons for University Commercialization

Having restricted his definition of commercialization, Bok further limits his analysis in discussing the reasons for current commercial trends in the university. He concludes that the current trends, while "unprecedented [in] size and scope,"97 are simply "the latest in a series of steps to acquire more resources beginning . . . in the early twentieth century."98 Again, Bok separates himself from a broader perspective, rejecting the theory of "[c]ritics from the left" that "the burgeoning commercial activity on campus . . . is simply another illustration of the attempts by the businessmen and lawyers who sit on boards of trustees to 'commodify' education and research, reduce the faculty to the status of employees, and ultimately, make the university serve the interests of corporate America."99 While he acknowledges increasing market influence on universities, Bok rejects as "rather farfetched" the idea of a national corporate plot "to bend universities to their corporate purposes."100

Through his caricature of "critics from the left" as simplistic conspiracy theorists, ¹⁰¹ Bok ignores the pressures that recent global privatization trends have placed on the university. More than a simple increase of market influence, the unprecedented growth in private corporate power has led to qualitative changes in public institutions, including the privatization of public utilities and services. ¹⁰² By insisting that current university commercialization is simply part of its traditional search for funds, Bok denies the relevance of these broader privatization trends to the recent shift in university-industry relations, which have brought corporations more directly into the core univer-

⁹⁵ Box, supra note 1, at 3.

⁹⁶ See supra notes 38-43 and accompanying text.

⁹⁷ Box, supra note 1, at 2.

⁹⁸ *Id.* at 10.

⁹⁹ *Id.* at 6.

¹⁰⁰ Id. at 7.

¹⁰¹ See id. at 6-7.

See infra notes 105-07 and accompanying text.

sity functions through patenting and licensing practices, direct corporate funding of entire academic departments, faculty as corporate founders and consultants, and for-profit distance learning corporations. ¹⁰³ Like his overly narrow definition of university commercialization, Bok's refusal to explore this social and economic context is inconsistent with his call for broad analysis of the effects of commercialization on the university's institutional values.

IV

EXPANDING THE CRITIQUE: AN INSTITUTIONAL ANALYSIS OF UNIVERSITY COMMERCIALIZATION

A. The Social and Historical Context of University Commercialization

Had Bok taken his own advice to "look at the process of commercialization whole,"104 how might his analysis have changed? Bok ignores several key aspects of university commercialization that reveal the deep threat to the university's public mission. First, Bok's failure to analyze recent university commercialization within a social and economic context ignores the relationship between university commercialization and broader privatization trends. commercialization must be analyzed as part of societal changes in the defined missions of public institutions. Beginning in the 1980s, global privatization trends transformed public governmental functions into private market activities, including government subcontracting with private corporations to deliver services such as public utilities, water, education, and prison management.¹⁰⁵ In the United States, deregulation of industries, such as airlines and energy, has increased corporate power over consumers. 106 Privatization also has been promoted through the increased presence of for-profit businesses into formerly nonprofit fields, as in health care in the United States. 107

Current commercialization trends raise the issue of whether universities are privatizing their traditional public mission, acting increasingly in their own financial interests and in the interests of corporate

¹⁰³ See Bok, supra note 1, at 7-8.

¹⁰⁴ Id. at 121.

¹⁰⁵ See Jody Freeman, The Contracting State, 28 Fla. St. U. L. Rev. 155 (2000); Tony Prosser, Social Limits to Privatization, 21 Brook. J. Int'l L. 213, 216–18 (1995). See generally Alfred C. Aman, Jr., Privatization and the Democracy Problem in Globalization: Making Markets More Accountable Through Administrative Law, 28 Fordham Urb. L.J. 1477 (2001) (analyzing privatization trends of traditional government services in the global context).

¹⁰⁶ See Aman, supra note 105, at 1491–98; Prosser, supra note 105, at 217–18.

Nonprofits: Health Care Policy in a Competitive Age, 3 Yale J. On Reg. 313 (1986); Lawrence E. Singer, The Conversion Conundrum: The State and Federal Response to Hospitals' Changes in Charitable Status, 23 Am. J.L. & Med. 221 (1997).

donors and licensees. Within this broader context, the "unprecedented" size and scope¹⁰⁸ of private market activities in the university indicates more than a new form of fundraising. Rather, the university's commercialization parallels the privatization of other public institutions.¹⁰⁹ If university commercialization is understood as part of an institutional challenge to its public mission, the decision whether to engage in commercial activities becomes central to the protection of academic values.

The university's response to corporate power in the industrial era demonstrates the centrality of university independence to institutional identity. In 1915, at the zenith of industrialization, the American Association of University Professors (AAUP) formed in reaction to the discharge of faculty whose teaching and research conflicted with the interests of powerful corporate donors.110 The newly formed AAUP demanded faculty rights of academic freedom essential to fulfilling the university's mission to serve the public good, independent from interference by boards of trustees, university officials, industrialists, or legislators. 111 The AAUP's actions were highly successful, leading to a strong tradition of academic freedom to support the public interest mission of the university. The Association of American Colleges and more than 150 academic professional organizations and universities endorsed the 1940 AAUP Statement of Principles on Academic Freedom and Tenure, reinforcing the role of higher education in contributing to the "common good"112 rather than acting in individual or institutional interests. 113 As this early history reveals, protecting the university from intrusion by corrupting influences is fundamental to the institutional principles of independence, academic freedom, and public mission.114

¹⁰⁸ Вок, *supra* note 1, at 2.

¹⁰⁹ See Eisenberg, supra note 7, at 1665-66.

¹¹⁰ See Richard Hofstadter & Walter P. Metzger, The Development of Academic Freedom in the United States 468–70, 470 n.5 (1955) ("[1]t has been argued . . . that boards of trustees are allied with business."); see also Ellen W. Schrecker, No Ivory Tower: McCarthyism and the Universities 16–18 (1986) (suggesting that, although academic freedom was not explicitly espoused as the impetus behind the AAUP, it certainly must have contributed to its foundation).

¹¹¹ See 1915 Declaration of Principles, in Academic Freedom and Tenure: A Handbook of the American Association of University Professors 155, 166–68 (Louis Joughin ed., 1967) [hereinafter 1915 Declaration of Principles]; J. Peter Bytne, Academic Freedom: A "Special Concern of the First Amendment," 99 Yale L.J. 251, 273–79 (1989); Walter P. Metzger, Profession and Constitution: Two Definitions of Academic Freedom in America, 66 Tex. L. Rev. 1265, 1275–81 (1988).

¹⁹⁴⁰ Statement of Principles on Academic Freedom and Tenure, in AAUP POLICY DOCUMENTS & REPORTS 3 (B. Robert Kreiser ed., 9th ed. 2001) [hereinafter 1940 Statement].

¹¹³ See 1915 Declaration of Principles, supra note 111, at 166-67 (discussing the "special dangers" posed to freedom of teaching by these conflicting motivations).

¹¹⁴ See Lieherwitz, supra note 11, at 77-85. The organizational history of the AAUP in relation to American universities also shows that "academic freedom" developed as a pro-

Guarding basic academic values requires a suspicion of the presence of corporate interests in the university. Most faculty continue to hold this strong presumption against the legitimacy of corporate influence. In terms of the current spectrum of attitudes regarding commercialization of the university, most faculty hold the first or second positions, premised on the belief that university commercial activity is bad. Despite Bok's warnings of the dangers of excessive university commercialization, he embraces the positive potential of increased university-industry contacts. His adherence to the third position on the spectrum—that university market activities are good, within limits—represents a major shift from the traditional suspicion of business interests as a threat to university independence.

- B. The Commercialization of Research: Institutional Conflicts of Interest
 - 1. Privatizing Publicly Funded Research: The Bayh-Dole Act of 1980

Of all the commercialization trends that Bok addresses, he is most enthusiastic about the federal Bayh-Dole Act of 1980.¹¹⁸ The Act authorizes and encourages nonprofit organizations—including universities—and businesses to apply for patents on inventions arising from use of federal research funds.¹¹⁹ Bok's analysis omits serious discussion of the central role of the Act in privatizing the university's research function. Prior to the Bayh-Dole Act, federal law granted the government title to inventions developed with federal funds, placing these inventions—including academic research—in the public domain.¹²⁰ The government could dedicate the invention to the public domain by publishing the results without obtaining a patent or by providing nonexclusive licenses to private parties seeking use of a govern-

fessional norm, apart from rights that the judicial and legislative systems created. See id. at 89. As a body of "extra-legal" rights, professional academic freedom remains an essential source of protection for faculty in public and private universities, particularly in light of the limited scope of constitutional academic freedom, which applies only to public sector faculty, and which courts have interpreted narrowly. See id. at 89–92.

¹¹⁵ Cf. supra notes 39-43 and accompanying text (discussing negative attitudes toward university commercialization).

¹¹⁶ See supra notes 43-45 and accompanying text.

See supra text accompanying note 38.

¹¹⁸ Pub. L. No. 96-517, 94 Stat. 3015 (1980) (codified as amended at 35 U.S.C. §§ 200-212 (2001)).

¹¹⁹ See Eisenberg, supra note 7, at 1665-66. The Bayh-Dole Act originally limited its authorization for patenting rights to universities, other nonprofit organizations, and small businesses. Id. at 1691, 1694-95. However, an amendment to the Act soon extended such authorization to all businesses receiving federal research funds, regardless of size. Id. at 1694-95, 1707 n.180. The extension of the Act was accomplished first by a Presidential Memorandum in 1983 and then by a 1984 congressional amendment to the Bayh-Dole Act.

¹²⁰ See id. at 1675-76.

ment-owned patent.¹²¹ Placing academic research in the public domain was consistent with the university culture of free exchange of research ideas and research in the public interest.¹²²

Congress enacted the Bayh-Dole Act soon after the mid-1970s revolution in university genetics and biotechnology research, which resulted in scientific discoveries with great commercial potential.¹²³ After Bayh-Dole, universities could seek to profit from royalties and licensing fees earned from patents on academic research discoveries. 124 Because most university science research is federally funded, 125 the Bayh-Dole Act was instrumental in encouraging universities to commercialize their research through contracts with industry, including the exclusive licensing of university-owned patents to for-profit corporations.¹²⁶ In 1979, before the Bayh-Dole Act, U.S. universities obtained only 264 patents; in 1997, U.S. universities obtained nearly ten times that number, at 2,436 patents.¹²⁷ In fiscal year 2000, U.S. universities filed 8,534 patents, an increase of 12% over 1999. 128 From 1980 to 1990, patent applications on NIH-funded inventions increased by almost 300%.¹²⁹ Surveys of U.S. universities in 1991 and 2000 show that during that period new patent applications increased by 238%,

¹²¹ See id. Prior to Bayh-Dole, a government agency could apply for a patent on federally funded inventions, rather than placing the inventions directly into the public domain, in order to ensure that a private party did not apply for a patent on the same invention and to avoid litigation over the issue of prior publication of the inventions. Id. In some agencies, a university or other government contractor could petition to shift title from the government to the contractor. See id. at 1683–84, 1691–92.

See Krimsky, supra note 4, at 39.

¹²³ See id. at 18-21 (describing the scientific research and industrial climate that the revolution in biology and chemistry had created, leading to passage of the Bayh-Dole Act).

See Eisenberg, supra note 7, at 1663-65.

¹²⁵ Martin Kenney, Biotechnology: The University-Industrial Complex 34–36 (1986). Since the post-WWII period, federal funding has consistently been the most important source of university research financial support, ranging from approximately sixty percent to seventy percent of university research funding since 1960. *Id.* at 13–15, 35–36; Sheila Slaughter & Gary Rhoades, *The Emergence of a Competitiveness Research and Development Policy Coalition and the Commercialization of Academic Science and Technology*, 21 Sci., Tech., & Hum. Values 303, 327 (1996). Public funding has remained important for university life sciences in particular, with public funding estimated at seventy to eighty percent of total funding for university life sciences research. David Blumenthal, *Conflict of Interest in Biomedical Research*, 12 Health Matrix 377, 380–81 (2002).

¹²⁶ Eisenberg, *supra* note 42, at 196. Where the federal fund recipient chooses to apply for a patent, the federal funding agency retains only a nonexclusive license to use the publicly funded invention. *Id.*

Rai & Eisenberg, supra note 44, at 53.

¹²⁸ Goldie Blumenstyk, Income from University Licenses on Patents Exceeded \$1-Billion, Chron. Higher Educ., Mar. 22, 2002, at A31.

¹²⁹ Krimsky, supra note 4, at 22.

licensing agreements increased by 161%, and royalties increased by more than 520%. 130

Increased university-industry contact under Bayh-Dole also led to further corporate involvement in the university, with increasing corporate funding of academic research—including millions of dollars to fund entire departments or research programs—in exchange for exclusive corporate licenses to research results.¹³¹ Although public funds remain the greatest source of research support, corporate funding has grown significantly, increasing by 93% between 1980 and 1984,¹³² with industry financing of the life sciences increasing from 7% of all academic scientific research in 1993 to nearly 11.7% in 1994.¹³³

Bok accepts at face value the premise underlying the Bayh-Dole Act that promoting commercialization of publicly funded research is in the public interest. He repeatedly expresses his agreement with this change in policy, concluding that "the profit motive proved decisive in causing universities to fulfill their responsibility to serve the public."134 Bok claims that "[o]nly when Congress expanded . . . patent[] and . . . royalt[y rights were universities motivated to] mount a serious effort to help the public gain a greater return on the billions of tax dollars invested in academic research."135 Bok even asserts that "[a]iding business [through technology transfer] is increasingly recognized as an explicit part of the mission of research universities" 136 and that the potential profits from patents "keep scores of institutions scouring their labs for commercially valuable innovations."137 This, Bok concludes, demonstrates that "commercial incentives have succeeded in encouraging universities to do a much better job of serving the public interest."138 Though he recommends reform to curb the excesses of university patent and licensing practices, Bok defends the Bayh-Dole Act, university exploitation of patents, and licensing of publicly funded research: "In seeking royalties, [universities] are merely doing what the law allows and Congress clearly meant to encourage. Since there are plausible reasons to support the government's policy, any argument to the contrary should be taken up with Congress, not

¹³⁰ Jerry G. Thursby & Marie C. Thursby, *University Licensing and the Bayh-Dole Act*, Sci., Aug. 22, 2003, at 1052. The Association of University Technology Managers reports that half of the licenses are exclusive. *Id.*

¹³¹ See, e.g., supra notes 77-79 and accompanying text.

Eisenberg, supra note 42, at 178 n.2.

¹³³ David Blumenthal et al., Relationships Between Academic Institutions and Industry in the Life Sciences—An Industry Survey, 334 New Enc. J. Med. 368, 369 (1996).

¹³⁴ Box, *supra* note 1, at 28.

¹³⁵ Id.

¹³⁶ Id. at 63.

¹³⁷ Id. at 77.

¹³⁸ Id.

the universities." Bok's statements reveal his blind faith in the market as a vehicle to serve the public interest. He unquestioningly accepts the Bayh-Dole Act's justification of the privatization of federally funded research, which equates the public interest with the corporate interest. According to this reasoning, encouraging universities to seek profits through patents and licenses will increase the number of commercially available products and thereby serve the public interest. This is highly questionable, given the tension between the goals of profit-making and serving the public good. Although Bok mentions the concern that Bayh-Dole "subordinate[s] the public aims of research to private ends," he fails to discuss the issue further. A closer analysis reveals that Bayh-Dole in fact represents a major departure from the traditional university mission of serving the public by introducing research into the public domain.

In his enthusiasm for university patenting and licensing activities, Bok ignores the multiple public costs of privatizing federally funded research. The public initially pays for such research through tax dollars.142 Under Bayh-Dole, the public pays an additional cost when a university-owned patent removes the federally funded invention from the public domain. 143 The university's licensing of its patents on federally funded research increases public costs. Because the university's commercial goals will include maximizing revenue from licensing fees and royalties, the university's interests will overlap with the corporate licensee's commercial success, creating a conflict of interest between private commercial interests and the university's institutional public mission. The public pays for this conflict, as the university will help to increase corporate profits through arrangements such as exclusive corporate licensing rights, thereby enabling corporations to charge high monopoly prices. Perhaps even more costly to the public is the university's loss of independence from private corporate interests, with a resulting loss of institutional legitimacy.

Supporters of the Bayh-Dole Act, including Bok, assert that privatizing federal research results will encourage utilization of federally funded inventions. Bayh-Dole proponents cite evidence of the low licensing rate of government-owned patents prior to 1980, 145 purportedly due to corporate lack of interest in nonexclusive licensing rights and the difficulty of navigating the bureaucratic morass of federal li-

¹³⁹ Id. at 142-43.

¹⁴⁰ See supra note 39 and accompanying text.

¹⁴¹ Box, supra note 1, at 58.

¹⁴² Eisenberg, supra note 7, at 1666.

¹⁴³ See id.

¹⁴⁴ See Bok, supra note 1, at 141.

¹⁴⁵ See Eisenberg, supra note 7, at 1702.

censing regulations.¹⁴⁶ Supporters cite the increase in university-owned patents and corporate licenses as proof that the Act was necessary and successful.¹⁴⁷ As Professor Rebecca Eisenberg has argued, however, statistical evidence concerning pre-1980 licensing understates the actual use of federally funded inventions, given the common practice of unlicensed use of government-owned patents and the availability of unpatented federally funded inventions.¹⁴⁸ Even prior to Bayh-Dole, the Department of Defense (DoD) generally permitted private contractors to retain title to patents on DoD-sponsored research, leaving government title only to inventions that the defense industry had chosen not to patent.¹⁴⁹ Agencies such as Health, Education, and Welfare (HEW), which commonly retained title to federally funded inventions, had a higher licensing rate.¹⁵⁰

Advocates of Bayh-Dole also overlook the contradiction created by imposing the patent system on university research. A patent provides the patent holder with a monopoly over use of a patented invention, including the right to control it during the patent period. 151 Theoretically, the patent holder's monopoly promotes the public good by providing an incentive for individuals to invent and then to disclose their inventions to the public.¹⁵² As Professor Eisenberg has stated, "patent rights on existing inventions result in a net social loss ex post, a loss that we endure only to preserve ex ante incentives to make future patentable inventions."153 University researchers do not need incentives of patent rights as they already have incentives to invent and to disclose. Both the communal values of science and the professional structure of the university encourage and require university scientists to invent and disclose their research to the public. 154 These professional incentives have been highly successful, as evidenced by the intense competition among academic scientists to be the first to publish their research results and methodology. 155

The patent system and the university system can, thus, be described as separate entities created to expand the public domain of

¹⁴⁶ See id. at 1663-64, 1676-77; Eisenberg, supra note 42, at 181-82.

¹⁴⁷ Eisenberg, *supra* note 7, at 1702 ("[B]ecause of government ownership the results of government-sponsored research were languishing in the archives.").

¹⁴⁸ See id. at 1702-04.

¹⁴⁹ Id. at 1702-03.

¹⁵⁰ Id. at 1703.

As of 1995, the U.S. patent term is twenty years from the date of filing the patent application; prior to 1995, the term bad been seventeen years from the date of issuance of the patent. Robert L. Harmon, Patents and the Federal Circuit 4–5 (5th ed. 2001); Dale H. Hoscheit & Lisa M. Hemmendinger, 2000 Cumulative Supplement, in Kenneth J. Burchfiel, Biotechnology and the Federal Circuit 137 (Supp. 2000).

¹⁵² Eisenberg, supra note 7, at 1668.

¹⁵³ Id. at 1667.

¹⁵⁴ See Eisenberg, supra note 42, at 183-84; Rai, supra note 42, at 88-94.

¹⁵⁵ Rai, *supra* note 42, at 92.

knowledge. The patent system is based on private ownership and monopolistic control of inventions in exchange for public disclosure. From this perspective, the expansion of the public domain justifies the cost of the patent period; the patent holder will provide the information to the public through the patent application, but the invention will be available to the public only at the end of the patent period. However, the university, as an institution with a public mission, traditionally places inventions and research developments directly into the public domain through scholarly publications. As patents are not necessary to provide an incentive to invent and disclose in the academic context, they cannot be justified as a cost of expanding the public domain. 156

Bok recognizes that the traditional university culture and structure provide faculty with incentive to engage in research without providing for the opportunity to patent their discoveries. 157 He does not address, however, the manner in which these systemic aspects of the university serve the university's public mission. Nor does he seriously address the negative impact of privatization of research on university culture and values. Bok believes that the patenting and licensing of federally funded research has not resulted in a major shift of academic science from basic to applied research.¹⁵⁸ This observation sheds little light on the effects of Bayh-Dole because the line between basic and applied research has become hazy, particularly in the biomedical field, in which the potential commercial value of basic research becomes clearer early on, shortening the time lag between basic research and its application.¹⁵⁹ Bok further recognizes that the current stability of academic values may be attributable to the presence of senior faculty, whose careers developed in a communal academic culture.¹⁶⁰ He fails, however, to address in depth the danger of future instability of these academic values, which will rely on graduate students and younger faculty socialized in a culture emphasizing private ownership and commercial exploitation of academic research discoveries.

How, then, would Bok curb the excesses of patent and licensing activities under Bayh-Dole? Bok recommends that universities refrain

¹⁵⁶ See id. at 118-20.

¹⁵⁷ See Box, supra note 1, at 139-40.

¹⁵⁸ *Id.* at 142.

¹⁵⁹ Kenney, supra note 125, at 106 ("There is no clear line of demarcation which identifies what research is appropriate for the university or for industry."); see Eisenberg, supra note 42, at 196, 178 n.1 (defining "'basic research'" as "'pure' research directed solely toward expanding human knowledge, as opposed to 'applied' research directed toward solving practical problems," and noting that "whatever validity this dichotomy may have in other contexts, it is difficult to maintain in the context of contemporary biotechnology research").

¹⁶⁰ Вок, *supra* note 1, at 204.

from issuing exclusive licenses for university-owned patents on federally funded basic research tools used broadly in early stage science research. He also supports amending federal legislation to give the NIH authority to restrict funding recipients from issuing exclusive licenses on such basic tools. While such reforms would significantly expand the availability of certain research tools, they leave uncontested the legitimacy of private ownership of federally funded research results, maintaining the viability of university practices of patenting and licensing academic research.

A recent decision by the Federal Circuit Court of Appeals, which exercises exclusive jurisdiction over patent appeals, 163 reveals the negative impact of university patenting and licensing practices on the university's institutional identity. In Madey v. Duke University, 164 plaintiff Madey sued Duke University for patent infringement based on Duke's use of Madey's patented laser technology in the Duke physics department.¹⁶⁵ The district court held that that the common law "experimental use" exemption immunized from patent infringement liability Duke's use of the patented laser technology "solely for research, academic or experimental purposes."166 The Federal Circuit reversed, holding that universities, in using patented inventions to carry out academic research, do not fall within the experimental use exemption under patent law.167 The circuit court emphasized that the experimental use exemption is a narrow, judicially created exemption from enforcement of patent infringement claims, covering only research carried out merely "for amusement, to satisfy idle curiosity, or for strictly philosophical inquiry."168 The court found no basis for applying the experimental use exemption more liberally to nonprofit institutions than to for-profit entities and concluded that Duke's use of the

¹⁶¹ Id. at 142.

¹⁶² Id.

¹⁶³ Congress created the Federal Circuit Court in 1982, eliminating the jurisdiction over patent appeals by the other United States Circuit Courts of Appeals. Burchfiel, *supra* note 151, at 5–6.

¹⁶⁴ 307 F.3d 1351 (Fed. Cir. 2002), cert. denied, 123 S. Ct. 2639 (2003).

¹⁶⁵ Id. at 1352-53. Madey had been a tenured professor in the Duke University physics department. After Duke removed him from the position of director of the free electron laser lab, Madey resigned from the faculty. Duke continued to use Madey's patented laser technology. Id.

¹⁶⁶ Id. at 1355.

¹⁶⁷ Id. at 1361-63; see Rebecca S. Eisenberg, Patent Swords and Shields, Sci., Feb. 14, 2003, at 1018, 1018-19.

¹⁶⁸ Madey, 307 F.3d at 1362; see also Rebecca S. Eisenberg, Patents and the Progress of Science: Exclusive Rights and Experimental Use, 56 U. Chi. L. Rev. 1017, 1021 (1989) ("analyz[ing] the proper scope of an experimental use exemption from patent infringement liability").

patented invention in its regular "business" of engaging in research fell outside the exception's narrow scope. 169

Given this breadth of reasoning, one could simply critique the Madey court's holding as an overly narrow view of the experimental use exemption in the context of the university's general research function. While the court did equate nonprofit and for-profit institutions under patent law, it did not base its decision on perceived similarities between universities' and corporations' patenting and licensing activities.¹⁷⁰ Further, the court's interpretation of the experimental use exemption disqualifies even noncommercial academic research, including basic research without any potential for patenting or licensing.¹⁷¹ The opinion did, however, note in dicta that Duke's large technology transfer office engaged in extensive commercial patenting and licensing activities.¹⁷² It is reasonable to speculate that Duke's self-serving approach influenced the court. Duke claimed freedom from patent law enforcement for research without commercial potential, while simultaneously benefiting from patent laws through its own technology transfer activities, such as collecting royalties and filing patent infringement claims. 173 Madey may warn of the consequences of universities' competing identities as institutions with a public mission and as commercial market actors. The immediate repercussions may be financial and administrative, in terms of the expense and inconvenience in obtaining licensing rights for patented research tools in academic research. The potential long-term effects, though, are most important. As universities take on the identity of commercial corporations, they may lose their unique position in society as institutions trusted to engage in independent research for the public good.

2. Corporate Funding of University Research: Creating Corporate Partners

Similar concerns arise in the context of university research funded by corporations. Bok's analysis of corporate funding concentrates primarily on the content of contractual terms for industry funding of individual faculty research.¹⁷⁴ Recognizing the compromise of academic values that results from demands by corporate funders, Bok recommends that universities monitor corporate research funding

¹⁶⁹ Madey, 307 F.3d at 1362-63.

¹⁷⁰ See id. at 1362.

¹⁷¹ Id

¹⁷² Id. at 1362 n.7 ("Duke's patent and licensing policy may support its primary function as an educational institution. . . . Duke, however, like other major research institutions of higher learning, is not shy in pursuing an aggressive patent licensing program from which it derives a not insubstantial revenue stream." (citation omitted)).

¹⁷³ See Eisenberg, supra note 167, at 1019.

¹⁷⁴ See Bok, supra note 1, at 151-53.

contracts to "resist" provisions requiring "excessive secrecy," permitting corporate influence over research findings, or providing for publication delays of more than three months after completion of research.¹⁷⁵ Bok also recommends vigorously enforced disclosure requirements for potential conflicts of interest by faculty engaged in corporate-funded research.¹⁷⁶ He does not, however, question the wisdom of university-industry agreements that exchange corporate funding for guarantees of corporate exclusive licensing rights to university-owned patents resulting from the funded research. Although he recommends that universities refrain from issuing exclusive licenses to university-owned patents on federally funded early-stage research tools,¹⁷⁷ Bok does not discuss this issue in relation to corporate funding agreements. He is also satisfied that large scale corporate funding is not yet so widespread as to endanger academic values.¹⁷⁸

Bok understates the growth in corporate funding of the university and the changes in university-industry relationships. Although public funds remain the greatest source of research support, corporate funding of academic science research has grown significantly. 179 A study of life sciences companies concludes that "life-science firms were significantly more likely to support academic research in 1994 than in 1984."180 Corporations have also expanded large-scale and long-term funding of university research programs in exchange for exclusive licensing rights to research results. As one scholar has described the relationship, "[i]n a very real sense, the universities are now experiencing a shift from corporate contribution to corporate investment in academia."181 For example, in 1974, Harvard entered an agreement with Monsanto Corporation for a twelve-year, \$23 million grant to Harvard Medical School in exchange for Monsanto's right to a worldwide exclusive license for inventions resulting from this research funding.182 After entering into this agreement, Harvard eliminated its policy, in existence since 1934, that had required approval from the

¹⁷⁵ Id. at 143-44.

¹⁷⁶ Id. at 66-71, 145-49.

¹⁷⁷ Id. at 142.

¹⁷⁸ See id. at 152-53 (noting one instance of such funding and expressing concern should the practice become widespread).

¹⁷⁹ See supra notes 131-33 and accompanying text. Bok cites the increase of corporations' financial support of total academic research, "from 2.3 percent in the early 1970s to almost [eight] percent by . . . 2000." Bok, supra note 1, at 12.

Blumenthal et al., *supra* note 133, at 371 (finding an increase from forty-six to fifty-seven percent of such companies). Another source reports that industry support of university research grew from "\$1.45 billion in 1994 to \$2.16 billion in 1999, an annual increase of nearly 10 percent." Charles F. Larson, *The Boom in Industry Research*, 16 Issues IN Sci. & Tech., Summer 2000, at 27, 27.

¹⁸¹ Charles C. Caldart, Industry Investment in University Research, 8 Sci., Tech., & Hum. Values 24, 25 (1983).

¹⁸² Kenney, *supra* note 125, at 58.

president and fellows before obtaining university "patents primarily concerned with therapeutics or public health" and further requiring that such patents be taken only "for dedication to the public." 183

Other university-industry large-scale and long-term funding contracts include: the 1982 Washington University-Monsanto agreement for \$23.5 million of corporate funding over five years in exchange for exclusive licensing rights to patents resulting from the biomedical research;184 the 1994 MIT-Amgen agreement for \$30 million of corporate funding over ten years in exchange for joint rights between the parties to the resulting patents; 185 the 1997 MIT-Merck agreement for \$15 million of corporate funding over five years in exchange for licensing rights to resulting patents;186 and the 1998 UC Berkeley-Novartis agreement for \$25 million of corporate funding over five years to the Department of Plant and Microbial Biology in exchange for exclusive licensing rights to approximately one-third of the Department's discoveries. 187 In addition to the exchange of funding for exclusive licenses, these university-industry "partnerships" expand the role of corporations in determining university research agendas and increase the presence of corporations in university research laboratories. Universities attract millions of dollars in corporate support by offering exclusive licenses as well as access to university facilities, faculty, and graduate students.¹⁸⁸ The corporation may appoint its own representatives to research committees in which, along with faculty and university administrators, they will select faculty proposals for funding grants. 189 Corporate research scientists have access to university research facilities and the opportunity to consult with faculty. 190 This close involvement gives corporations the opportunity

¹⁸³ Eisenberg, *supra* note 42, at 181 n.9 (quoting David Dickson, The New Politics of Science 89 (1984)).

¹⁸⁴ Kenney, supra note 125, at 67-69; Krimsky, supra note 4, at 28-29. After being renewed three times, Monsanto's financing of the university totaled about \$100 million. Krimsky, supra note 4, at 28.

¹⁸⁵ See Andrew Lawler, Last of the Big-Time Spenders?, Sci., Jan. 17, 2003, at 330, 330–31; MIT's Alliances with Industry, MIT News, available at http://web.mit.edu/newsoffice/nr/2000/alliance.html#amgen.

¹⁸⁶ William H. Honan, Corporations Still Give, but Also Get, N.Y. Times, July 15, 1998, at B9.

¹⁸⁷ See Lawler, supra note 185, at 330; Colin Macilwain, Berkeley Teams Up with Novartis in \$50m Plant Genomics Deal, NATURE, Nov. 5, 1998 (describing deal prospectively); cf. Kenneth Sutherlin Dueker, Biobusiness on Campus: Commercialization of University-Developed Biomedical Technologies, 52 FOOD & DRUG L.J. 453, 481–507 (1997) (describing in detail patenting, licensing, start-up corporations, and corporate funding activities at Harvard, Stanford, and MIT).

¹⁸⁸ See Kenney, supra note 125, at 55-72 (sketching the trend of "one university/one corporation contracts").

¹⁸⁹ Id. at 57.

¹⁹⁰ Id.

to become acquainted with graduate students, who may later be hired into industry science R&D departments.¹⁹¹

In his critique of the commercialization of intercollegiate sports programs, Bok states that universities "have absolutely no business operating farm systems for the benefit of the National Football League and the National Basketball Association."192 It is unclear, however, why Bok is less concerned with universities' service of industry through research patenting and licensing activities, both under the Bayh-Dole Act and through corporate funding agreements. By "scour[ing]" labs 193 for federally funded research that can be patented and licensed, universities participate in the privatization of their core research function, sacrificing the university's contribution to the public domain of research development. Through the cultivation of large-scale corporate funding of university research programs in exchange for exclusive licensing rights and participation in university research committees, universities undermine their independence and abandon their public mission. Bok should have rephrased his own comment on intercollegiate sports to state: "University research should not be carried out in the service of the interests of Monsanto, Novartis, or Merck." In contrast, Bok's positive embrace of the Bayh-Dole Act and corporate funding agreements is at odds with the core principle of the university's public mission: that serving the public interest is fundamentally different from a university serving either its own financial interests or the private interests of industry.

Bok's enthusiasm for research market activities also ignores the link between the university's independence and the faculty's academic freedom. The emphasis on the commercial potential of research hinders faculty freedom to pursue research agendas in the interest of scientific progress. Though availability of funds generally shapes research agendas, the priorities of a governmental agency like the NIH are more likely to reflect the goal of serving the public interest than are the research priorities of corporate supporters. The university further compromises academic freedom by patenting and licensing academic research, thus undermining academia's communal culture and the associated benefits for scientific progress.

C. Teaching for the Public Good

1. Rejecting Teaching For-Profit

Bok's analysis of teaching focuses primarily on universities' recent foray into Internet-based distance learning programs. Universities at-

¹⁹¹ Id

¹⁹² Вок, *supra* note 1, at 125.

¹⁹³ *Id.* at 141.

tracted by the Internet's commercial potential have moved outside of their traditional nonprofit institutional structures, 194 entering the distance learning market by creating spinoff, for-profit corporations, such as eCornell. 195 Similarly, universities have entered contracts to participate in distance learning programs developed by for-profit corporations, such as the partnerships between University of Chicago or Columbia University and UNext, a for-profit Internet business founded by University of Chicago Trustee Andrew Rosenfield and junk-bond trader Michael Milken. 196

Though he recommends against such ventures, Bok does not adequately address the underlying academic values that lead to this conclusion. His views on for-profit distance learning entities stem from his fear of the inevitable demands of investors and the potential for compromising educational quality.¹⁹⁷ He also notes that universities need not pursue for-profit corporate structures, as they can benefit from revenue earned in distance learning programs developed as part of their nonprofit structure.¹⁹⁸

Bok does not, however, explore the major shift in values represented by universities' choices to engage in distance learning programs through for-profit corporations. For-profit distance education should be rejected not simply because the quality of the product will suffer, but because the fundamental values of the university will be harmed. 199 A deeper analysis is important in order to understand that for-profit distance learning corporations are part of a pattern of university privatization that threatens to alter the university's mission and to restrict academic freedom. As with his evaluation of trends in research, Bok does not place for-profit distance education in this broader context of the privatization of public institutions. By adopting for-profit corporate structures, universities choose a corporate structure explicitly intended for the private financial interests of shareholders, whether the shareholders are venture capitalists or the university itself.200 Further, for-profit corporate partners and shareholders in university spinoff corporations become participants in the core university function of education. As in the university's research activities, promoting private financial interests creates a conflict of interest with

¹⁹⁴ See id. at 86-92.

¹⁹⁵ See Lieberwitz, supra note 11, at 104–35 (analyzing university for-profit distance learning programs generally and examining Cornell University's for-profit corporation, eCornell, as a case study).

¹⁹⁶ Id. at 104–07; Вок, supra note 1, at 79–81. Some universities have also created distance learning programs through their nonprofit university structure. Lieberwitz, supra note 11, at 104.

¹⁹⁷ Box, *supra* note 1, at 169–72.

¹⁹⁸ *Id*. at 171.

¹⁹⁹ See supra note 48 and accompanying text.

²⁰⁰ See Box, supra note 1, at 169.

the university's public mission.²⁰¹ In addition, bringing third party investors into educational decisionmaking sacrifices the university's institutional independence.²⁰²

Bok's analysis of for-profit distance learning programs also understates their threat to faculty academic freedom. Though he cautions against developing distance education through for-profit corporations, he does not believe that such programs will undermine faculty governance and lead to exploitation of distance learning faculty.²⁰³ Bok concludes that individual faculty would actually gain power to negotiate for favorable contract terms as instructors of distance learning courses.²⁰⁴ This view, however, mischaracterizes the nature of the power that faculty gain through academic freedom. Academic freedom is both an individual and collective right of self-governance.²⁰⁵ As individuals, faculty members have academic freedom to determine the content of their research, teaching, and extramural speech.²⁰⁶ Collectively, academic freedom is expressed through faculty peer review in hiring and promoting colleagues and in participation in academic decisionmaking, such as curricular development, academic program creation, and student admissions.²⁰⁷ As in research activities, academic freedom in teaching depends on independence from conflicting private interests, enabling faculty to engage in individual and collective decisionmaking in the public interest.²⁰⁸ University forprofit distance learning corporations undermine individual and collective academic freedom by shifting decisionmaking authority over an educational program from the faculty to corporate directors. Shifting the goal of educational programs from promoting the university's

²⁰¹ See id. at 66-67.

²⁰² See id. at 115-16, 129-31.

See id. at 95 (stating that because faculties are "the life-blood" of major institutions, "senior faculty are likely to hold the whip-hand").

²⁰⁴ Id.

For a discussion of the historical development of the norm of academic freedom, see *supra* notes 110–14 and accompanying text; Lieberwitz, *supra* note 11, at 77–85.

²⁰⁶ See Lieberwitz, supra note 11, at 82–85. Extramural speech includes speech "outside a faculty member's professional duties or disciplinary expertise," whether the speech was made on or off campus, "thus actually covering intramural and extramural speech." Id. at 83. It has been accepted as part of professional academic freedom in the United States since its formulation in the AAUP 1915 Declaration of Principles. Id.; Metzger, supra note 111, at 1275–76 (addressing the AAUP's decision to "abandon academic freedom's restrictive ordinances"); see also Matthew W. Finkin, "A Higher Order of Liberty in the Workplace": Academic Freedom and Tenure in the Vortex of Employment Practices and Law, 53 LAW & CONTEMP. PROBS. 357, 372–73 (1990) (analogizing the academic profession's demand for freedom with statutory protections for workplace freedom of speech under the National Labor Relations Act).

²⁰⁷ Lieberwitz, supra note 11, at 83-86.

²⁰⁸ Id. at 82-86.

public mission to enhancing private financial interests also compromises academic freedom.²⁰⁹

Bok also disapproves of profit-making as a primary goal for any educational program of the university, whether through a for-profit entity or within the university's traditional nonprofit structure.²¹⁰ While this is good advice, Bok should have made clear that the university's ability to reject the profit-making goal hinges on its adherence to its public mission as a public or nonprofit institution. The board of directors of a for-profit corporation has a fiduciary duty to the shareholders to make decisions that increase profits.211 In contrast, although universities must seek revenues to cover costs, a goal of profitmaking contradicts the university's institutional public mission. To enable them to pursue goals in the public interest, public and nonprofit institutions receive public subsidies. Such subsidies can be direct, as through public funding, or indirect, as through federal corporate income tax exemption and federal tax deductibility of donations,²¹² and as through state sales tax and property tax exemptions.²¹³ Further, though nonprofit corporations may generate unlimited revenues, the nondistribution constraint prevents nonprofit corporations from using corporate funds for private inurement, including a prohibition on excessive salaries and rental prices, as well as

²⁰⁹ See id. at 85–86. Bok presents positive views of the role of the market in providing a voice for students concerning their curriculum. Bok, supra note 1, at 97. While including students' voices in curricular development may be an important part of applying democratic principles in the university, achieving student participation through a market-based process conflicts with faculty autonomy and with the value of developing an educational program in the public interest.

²¹⁰ See, e.g., Boκ, supra note 1, at 164 (addressing the risks of a university hosting executive education programs).

²¹¹ Tarik J. Haskins, Look Who's Talking: Exploring No-Talk Provisions in Merger Agreements, 70 U. Cin. L. Rev. 1369, 1371 (2002).

Nonprofit private universities qualify for such exemptions as § 501(c)(3) organizations serving educational purposes. See 26 U.S.C. § 501(c)(3) (2001); Peter D. Blumberg, From "Publish or Perish" to "Profit or Perish": Revenues from University Technology Transfer and the § 501(c)(3) Tax Exemption, 145 U. Pa. L. Rev. 89, 101–06 (1996); see also Barbara K. Bucholtz, Reflections on the Role of Nonprofit Associations in a Representative Democracy, 7 Cornell J.L. & Pub. Pol'y 555, 560–61 (1998) (discussing taxation of nonprofit organizations); John D. Colombo, Why Is Harvard Tax-Exempt? (and Other Mysteries of Tax Exemption for Private Educational Institutions), 35 Ariz. L. Rev. 841, 857–87 (1993) (discussing theories underlying tax exemptions for private educational institutions).

Burton A. Weisbrod, The Nonprofit Economy 118, 122 (1988). Private for-profit businesses, including those in the education field, have complained that such subsidies give nonprofit universities an unfair market advantage. See Bucholtz, supra note 212, at 569. But these subsidies are intended to provide a favored status to nonprofits to encourage them to serve the public interest rather than the private goal of profit-making. Weisbrod, supra, at 116–18. For an excellent discussion of a policy proposal to deny the § 501(c) (3) tax exemption to university-industry licensing agreements that are inconsistent with the public purpose basis for the status, see Blumberg, supra note 212, at 134–46.

sale of equity capital in the corporation.²¹⁴ A nonprofit corporation's profits must be returned to the corporation for use consistent with its public purpose.²¹⁵ The lack of a profit-seeking motive for private gain contributes to the nonprofit's legitimacy and to public trust that its work will be carried out in the public interest.²¹⁶

2. University Commercialization Versus Faculty Academic Freedom: Attacks on Tenure As Part of Commercialization Trends

The most striking omission in Bok's study is the absence of any discussion about the recent weakening of the tenure system. In describing the narrowed definition of commercialization, Bok notes his exclusion of the university's "efforts to economize in university expenditures (hiring more adjunct teachers) or to use administrative methods adapted from business."²¹⁷ In describing this omission, Bok fails to note that the increased hiring of adjunct teachers since the mid-1970s corresponds directly to the decreased hiring of faculty in tenure-track positions.²¹⁸ Again ignoring his own advice to "look at the process of commercialization whole, with all its benefits and risks,"²¹⁹ Bok fails to analyze a major trend that is part of the university's adoption of private market models and values. These shifts in faculty hiring represent a major qualitative change in university hiring practices, given the contrast between employment conditions and rights of "contingent" faculty and those of tenure-track faculty.²²⁰

Contingent faculty, including adjunct and part-time faculty, are hired on a temporary basis, without the prospect of gaining the lifetime job security of tenure.²²¹ This change in faculty hiring practices profoundly affects academic values. Since the founding of the AAUP in 1915, the tenure system has been linked to the faculty right of academic freedom and to the public mission of the university.²²² Tenure gives faculty the freedom to pursue controversial teaching and re-

Weisbrod, supra note 213, at 118 (explaining that IRS "'prohibition of inurement, in its simplest terms, means that a private shareholder or individual cannot pocket the organization's funds except as reasonable payment for goods and services'" (quoting IRS Exempt Organizations Handbook (IRM 7751) § 342.1(1))); see also Blumberg, supra note 212, at 106–08 (describing private benefit rule and its potential application to universities).

²¹⁵ See Michael B. Goldstein, To Be [For-Profit] or Not To Be: What Is the Question? CHANGE, Sept.—Oct. 2000, at 31.

²¹⁶ Cf. Bucholtz, supra note 212, at 565 (describing public trust in the quality of non-profit sector's goods and services).

²¹⁷ Box, *supra* note 1, at 3.

See infra notes 236-39 and accompanying text.

²¹⁹ Вок, *supra* note 1, at 121.

See infra notes 247-48 and accompanying text.

See infra notes 232-34 and accompanying text.

See 1915 Declaration of Principles, supra note 111, at 168-70.

search, as well as public speech outside their academic discipline, without fear of retaliation from their university employer.²²³

The tenure system also ensures faculty self-governance through a peer review system of promotions to tenure.²²⁴ Judgments of faculty teaching and research made in peer review are to be based on the quality of the faculty's contributions, within a system committed to free and open inquiry.²²⁵ Though this system is imperfect given the tenure candidate's vulnerability to the power of tenured colleagues, the internalized professional norms of academic freedom have placed important limits on tenured professors' arbitrary or abusive exercise of power in peer reviews.²²⁶ Moreover, tenure review processes of some universities recognize due process rights through internal university appeals from negative tenure review decisions.²²⁷

The weakening of the tenure system and the concomitant increase in contingent faculty are part of the broad trends of privatizing the university through the application of business models and practices. The tenure system gives the faculty rights of free speech, due process, ²²⁸ and job security that are unheard of in other workplaces in the United States, where most employees are subject to the commonlaw doctrine of "employment-at-will." Statutes that prohibit discrimination on specific bases, such as race, sex, national origin, disability, age, or union activities, limit the employer's unilateral power

²²³ See 1940 Statement, supra note 112, at 4 (advising that tenured professors can be fired only for cause and must receive notice and the opportunity to defend themselves at a hearing).

²²⁴ See Statement on Procedural Standards in the Renewal or Nonrenewal of Faculty Appointments, in AAUP POLICY DOCUMENTS & REPORTS, supra note 112, at 15 [hereinafter Procedural Statement].

See 1940 Statement, supra note 112, at 4.

Per commentary that critiques practices, such as the tenure system, that define a narrow scope of academic freedom, but also recognizes the importance of academic freedom for providing room for free speech and institutional change in teaching and research, see Craig Kaplan, *Introduction* to Regulating the Intellectuals: Perspectives on Academic Freedom in the 1980s, at 1 (Craig Kaplan and Ellen Schrecker eds., 1983); Bertell Ollman, *Academic Freedom in America Today: A Marxist View, in* Regulating the Intellectuals, *supra*, at 45; Frances Fox Piven, *Academic Freedom and Political Dissent, in* Regulating the Intellectuals, *supra*, at 17.

²²⁷ See, e.g., Procedural Statement, supra note 224, at 15; Procedures for Appealing a Negative Tenure Decisions, Academic Policies and Reports, Cornell University Faculty Website, Faculty Appeals Procedures, http://web.cornell.edu/UniversityFaculty/ (last visited Jan. 13, 2004).

²²⁸ See Procedural Standards in Faculty Dismissal Proceedings, in AAUP POLICY DOCUMENTS & REPORTS, supra note 112, at 11–14 (supplementing the 1940 Statement by laying out procedural recommendations and conditions for faculty termination).

²²⁹ Samuel Estreicher, *Unjust Dismissal Laws: Some Cautionary Notes*, 33 Am. J. Comp. L. 310, 310–11 (1985). The employment-at-will doctrine gives employers the power to hire and fire employees for any reason. *Id.*

under the employment-at-will doctrine.²³⁰ Statutory protection places discrete restrictions on employment at will without generally protecting employees from "unjust dismissals." Though collective bargaining agreements obligate employers to prove "just cause" for discharge, most employees have no such protection, given the current low rate of unionization in the United States.²³¹

Contingent faculty, who are hired into nontenure-track positions, are excluded from the full protections of academic freedom afforded by tenure, as they remain vulnerable to discharge by the university employer and are excluded from the university system of faculty self-governance.²³² Adjunct and part-time faculty, who are often hired to teach courses on a "piece rate" basis for low pay and no benefits, are subject to the employment-at-will doctrine, leaving the university free not to hire them to teach another course.²³³ Other nontenure-track faculty, such as lecturers with three- to five-year contracts, may be protected from discharge without just cause during the term of their contracts but remain vulnerable to losing their positions at the end of the contract.²³⁴

It is quite surprising that Bok devotes two chapters to university athletics—which he describes as a "peripheral" activity in the university—but excludes discussion of the weakening of the tenure system, which will have a severe impact on the university's core research and teaching functions. Had Bok "look[ed] at the process of commercialization whole, with all its benefits and risks," 235 evidence of the dramatic changes in faculty employment would have revealed the magnitude of the problem created by the university's use of a business

Civil service laws for public sector employees and contractual protection for collective bargaining agreements for unionized public or private sector employees provide employees with protection from discharge without just cause. See Charles Feigenbaum, Civil Service and Collective Bargaining: Conflict or Compatibility?, in Labor Relations in the Public Sector: Readings, Cases, and Experiential Exercises 21, 23 (Marvin J. Levine & Eugene C. Hagburg eds., 1979). There have been some state common law exceptions to the employment-at-will doctrine, but these are limited in scope and effectiveness of protection. See Clyde W. Summers, Employment at Will in the United States: The Divine Right of Employers, 3 U. Pa. J. Lab. & Emp. L. 65, 70–78 (2000).

²³¹ U.S. Census Bureau, Statistical Abstract of the United States 2002, Sec. 12, Tbl. No. 628, at http://www.census.gov/prod/2003pubs/02statab/labor.pdf (last visited Jan. 13, 2004). The overall rate of unionization in the United States is currently 14.8%. *Id.*

²³² Jane Buck, *The President's Report: Successes, Setbacks, and Contingent Labor*, 87 Academe, Sept.-Oct. 2001, at 18, 19, 21.

John C. Duncan, Jr., The Indentured Servants of Academia: The Adjunct Faculty Dilemma and Their Limited Legal Remedies, 74 Ind. L.J. 513, 524–29 (1999); see also NAT'L CTR. FOR Educ. Studies, The Condition of Education 83 (2001), available at http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2001072 (presenting data on percent of faculty employed part time in Fall 1998) (last visited Jan. 13, 2004) [hereinafter The Condition of Education].

²³⁴ See Finkin, supra note 206, at 360-61, 364.

²³⁵ Вок, *supra* note 1, at 121.

model to define faculty rights and status. Employment of part-time higher education faculty has grown dramatically, with an estimated 133% increase between 1971 and 1986, compared with a 22% increase in full-time faculty during that same period. The percentage of part-time faculty has been estimated at 33% in 1987, 43% in 1998, and 46% in 2001. Estimates suggest that graduate students and contingent faculty teach more than half the courses offered within some social science and humanities disciplines. The United States Department of Education reports that approximately four of every ten instructional faculty in postsecondary institutions worked on a part-time basis during the fall of 1998. The united States of the course of the course

Even these statistics do not reveal the full threat to academic values. Contrary to Bok's characterization, other developments show that the increased hiring of contingent faculty is more than a university effort to economize: these trends contain a dimension of increased control over faculty. During the same period, the tenure system has come under attack as conflicting with a system that motivates high productivity through incentives created by employee accountability and competition.²⁴⁰ For example, in 1995 the University of Minnesota Board of Regents attempted to restrict the tenure system through various measures, including proposals to make it easier to lay off tenured faculty and to discipline faculty for "not maintaining a 'proper attitude of industry and cooperation.'"²⁴¹ In 1997, the faculty and the Board of Regents reached a compromise with a new tenure code providing for periodic post-tenure reviews leading to possible pay cuts for poor performance.²⁴² In 1994, Bennington College,

²³⁶ Duncan, supra note 233, at 521. One estimate of the rate of part-time teaching exceeds more than fifty percent of all college classes. Tammie Bob, Degrees of Difficulty; Part-Time College Teachers Live the Tough Lessons of '90s-Style Economics, Chi. Trib. Mag., July 12, 1998, at 10, 10–11.

²³⁷ Buck, *supra* note 232, at 20.

²³⁸ Id. (citing a recent study by the Coalition on the Academic Workforce). Jane Buck, President of the AAUP, also cites statistics provided by the Modern Language Association that full-time tenured or tenure-track professors teach only twenty-eight percent of foreign-language courses at doctoral institutions and only twenty-six percent of foreign-language courses at associate degree-granting institutions. Id.

The Condition of Education, supra note 233, at 83.

²⁴⁰ See, e.g., Debbie Goldberg, Keeping College Faculties Accountable, Wash. Post Educ. Rev., July 27, 1997, at R04 (detailing the University of Minnesota's attempts to institute a new tenure code that would give the administration more control over faculty performance); Renae Merle, Academic Tenure Is Under Fire: Profs Worry for Freedom of Thought, Times-Picayune, Mar. 23, 1997, at A11 (discussing new tenure policies in universities in Florida, Colorado, Hawaii, Minnesota, and Texas); Laurel Shaper Walters, Tenure Comes Under Stricter Review, Christian Sci. Monitor, Apr. 24, 1997, at 12 (examining the trend away from granting tenure and the arguments on both sides of the debate over the shift).

Rene Sanchez, Minnesota Faculty, Regents Put Tenure to the Test; Campus at Center of Growing Battle over Job Guarantees and Power in Academia, WASH. POST, Nov. 9, 1996, at A01.

The state's Board of Regents' attempt to cut back rights under the tenure system was met by organized opposition, including a union organizing campaign among the

which did not have a traditional tenure system, substituted one- to five-year individual contracts for its "presumptive tenure" system under which faculty had been reviewed every five years.²⁴³ Following this change, Bennington College dismissed one-third of its faculty.²⁴⁴ In 1997, Florida Gulf Coast University (FGCU) was founded as part of the Florida state university system, with distance learning as its focus.²⁴⁵ FGCU hires virtually all faculty on fixed renewable contracts, without any tenure system.²⁴⁶

Administration and trustee attempts to impose increased regulation on faculty productivity may find some sympathy within a popular view that tenure simply protects faculty who are underworked and overpaid. In his general discussion of the relevance of business practices to the university, Bok refers to the popular view that tenured faculty are free to spend their time at home gardening rather than writing scholarly publications.²⁴⁷ As Bok also notes, in reality, the institutional and professional structure of higher education provides incentives for faculty to exercise their autonomy to engage in active teaching and research programs.²⁴⁸ Faculty desire for increased professional status and their interest in contributing to the progress of their academic discipline provide incentives to faculty post-tenure.²⁴⁹ University trustees, more than the general public, are likely to be aware of continued faculty productivity within the tenure system. Trustee attempts to restrict tenure rights, therefore, should be viewed with suspicion as a means of limiting faculty autonomy through the imposition of business models of employment.

Had Bok described and evaluated the increased hiring of contingent faculty, the decreased hiring of tenure-track faculty, and the direct challenges to the tenure system, the threats to academic values would have been apparent. Weakening the university tenure system—whether through the growth of contingent faculty or through direct

faculty. See Sanchez, supra note 241. In December 1996, the faculty voted against the union. Maureen M. Smith, It's Over: New Code Ends "U" Tenure War, STAR TRIB., June 6, 1997, at 1A.

²⁴³ William Celis III, Radical Answer to a Small College's Woes, N.Y. TIMES, June 23, 1994, at A12.

²⁴⁴ Id.; Buck, supra note 232, at 19.

FGCU's goal is to provide courses to "25 percent of all enrollments" through distance learning, including "remote access via Internet, videotaped class sessions, two-way interactive video, and printed material." Richard Chait & C. Ann Trower, Build It and Who Will Come?, 30 CHANGE, Sept.—Oct. 1998, at 20, 27; see Robin Wilson, A New Campus Without Tenure Considers What It's Missing, CHRON. HIGHER EDUC., May 12, 2000, at A18.

Only faculty who transferred to FGCU from a satellite campus of the University of South Florida retained their tenure or tenure-track status. Other newly hired faculty were given three- to five-year contracts. Wilson, *supra* note 245, at A18.

²⁴⁷ Bok, *supra* note 1, at 21.

²⁴⁸ *Id.* at 22-23.

²⁴⁹ Id. at 22.

changes in rights of tenured faculty—threatens to undermine the system that protects individual and collective rights of academic freedom. The tenure system creates a foundation to support the values promoted by academic freedom: free expression of controversial ideas and theories; experimentation with new research agendas; teaching that challenges majority views; disagreement regarding university policies; full collegial debates on academic decisions, including curricular development and peer reviews; participation in faculty self-governance bodies, such as faculty senates and policy committees; and public statements concerning social issues. Without tenure protection, faculty will be more likely to engage in self-censorship in their individual teaching and research activities, in collective faculty governance bodies, and in public debates of policy issues.²⁵⁰ University discharges of outspoken faculty during the early industrialization period serve as reminders that faculty are vulnerable without the job security of tenure.251 The erosion of the foundational system of tenure will lead to an erosion of faculty academic freedom.

Weakening tenure protection and academic freedom will also strengthen the university's other efforts at commercialization. An essential element of academic freedom is the faculty's right to dissent from university policies. Nontenure-track faculty cannot afford to criticize the university's commercialization practices, given their vulnerable employment status. Further, universities' hiring practices split the faculty into first-class, tenure-track or tenured faculty; second-class, nontenure-track faculty with renewable multi-year contracts; and third-class adjunct faculty working on a semester-to-semester basis.²⁵² Drawing status lines weakens the faculty's ability to present a strong collective front in resistance to university commercialization. Additionally, the university's aggressive actions in undermining the tenure system are themselves expressions of the administration's power, which can leave faculty demoralized and discouraged about the prospect of opposing other commercialization programs, such as university-industry "strategic alliances."

CONCLUSION

Commercialization of the university is a crisis for higher education. By bringing market models into the core university research and teaching functions, universities have damaged their mission to serve the public. Crucial to the integrity of the university is the independence of faculty and the university from private financial interests, including those of corporate donors. This longstanding principle,

²⁵⁰ See Buck, supra note 232, at 21.

See supra notes 110-14 and accompanying text.

See supra notes 242-46 and accompanying text.

established during the industrial era of the early twentieth century, has been linked to the value of faculty academic freedom to pursue research and teaching that breaks new ground and challenges the status quo. These well-internalized academic values have created a strong presumption against the legitimacy of university commercial activities, given the contradiction between the university's public mission and the private goals of the market.

University commercialization trends should be analyzed against the social and historical background of university independence and faculty academic freedom. This approach, in fact, seems to have been recommended by Bok in counseling that universities should use a broad-based process in deciding whether to engage in commercial activities. As this Book Review has argued, however, Bok makes a well-advised recommendation and then fails to follow it. In embracing the positive potential of commercial activities, Bok moves from the traditional premise that the university should not engage in commercial activities to the view that commercial activities are good as long as excesses are curbed. Bok ignores the institutional conflict of interests created by importing commercial activities and private market values into core university functions.

Had Bok considered the full scope of university commercialization, his positive perspective would have been much harder to sustain. Analyzing university commercialization within the current context of widespread privatization trends would have revealed the depth of danger to the university's academic values and public mission. University patenting and licensing creates a conflict of interest between the university's mission of contributing to the public domain and the private goal of profiting from university-owned patents. Under the Bayh-Dole Act, university patenting and licensing of publicly funded research substitutes private corporate interests for the public interest. The growth of private corporate funding of specific university research programs compromises the university's independence through arrangements giving corporate funders exclusive licensing rights to university patents on academic research. For-profit distance learning corporations reject the importance of nonprofit and public institutional structures to guarding the university's public mission. The growth of contingent faculty and the weakening of the tenure system undermine faculty academic freedom to pursue controversial research and teaching projects.

Separate analysis of each of these developments demonstrates the threats to the university's institutional integrity and the faculty's academic freedom. Analyzed together, within a broad social and histori-

²⁵³ See Box, supra note 1, at 121.

cal context, these trends are revealed as part of an integrated pattern of commercialization and privatization that endangers core academic values and the public mission of the university. Resisting these commercial activities and the use of market values is essential to the university's preservation of its traditional role of contributing to the public good and its traditional values of independence and academic freedom.