World Journal of Business Research
ISSN 2770-9078
Vol. 5, No. 1, 2025
Published by STSL Press

Original Paper

What Was Gained and Lost when Professionals Began Receiving Their Training in University-Based Professional Schools?

Edward W. Miles
Georgia State University
Atlanta, Georgia USA

Kenneth A. Black
Virginia Tech
Blacksburg, Virginia USA

Abstract

In the nineteenth and twentieth centuries, professional school enrollments came to be a significant portion of the population of university students. Before that time, most professionals received training by practicing their respective professions similar to the system of medieval craft guilds. This essay explains what benefits were gained as a result of the change to university-based training and what losses occurred as a result. The gains circulate around more uniform training and political benefits derived by the profession as a result of affiliating with the university. The losses circulate around the profession losing control of selecting and training new entrants to the profession and losing the ability to indoctrinate its values and culture in the trainees.

Keywords: profession, professional school, professional training, clinical experience, clinical training

Before there were university-based journalism schools, there were journalists. Before there were university-based architecture schools, people designed buildings. Before there were university-based pharmacy schools, there were people dispensing drugs for medical purposes. Similar statements can be made about engineering, education, forestry, and many other professions and their respective university-based schools. In retrospect, many would say that people such as lawyer Abraham Lincoln, composer Ludwig Van Beethoven, nurse Clara Barton, journalist Joseph Pulitzer, and architect Christopher Wren—for example—became quite proficient without the benefit of training from a university-based professional school.

Clearly, professionals who typically receive training today in university-based professional schools once received their training without the benefit of those schools. How did that training occur? Primarily, it was received through variations of the medieval guild system (i.e., apprentice, journeyman). People who aspired to enter the profession were taken under the care and oversight of someone practicing that profession successfully (i.e., master). They began by doing menial tasks associated with the profession and worked their way up to the key complex and skilled elements of the profession (Burrage, 1993; Epstein and Prak, 2008; Karabell, 1998; Pulitzer, 1904; Renard, 1918).

The purpose of this essay is to discuss what was gained and what was lost by the profession when these professions moved from practice-based training to university-based professional school training. We start first with the antecedents to the rise of the professional school.

Universities and Vocational Training

Before Today’s Emphasis on Vocational Training

Although there have been other origins, the primary ancestor of the current-day university is the medieval European university such as those located at Bologna, Paris, and Oxford (Collini, 2012; Pedersen 1997; Perkin, 2006). Traditionally, the medieval university had the purpose of understanding truth and knowledge although both “truth” and “knowledge” have had some different connotations across the centuries (Hofstadter and Metzger, 1955; McLaughlin, 1952/1977; Powicke, 1926; Wittrock, 1993). About 200 years ago, two European interpretations of the role of the university were common.

The first is the British tradition illustrated by John Henry Newman's *The Idea of a University* (1859/1966). Newman saw the university as a "finishing school" for gentlemen who were about to take their station in society. Therefore, the need was for a well-rounded, liberal education. In Newman's eloquent phrasing, university training should prepare a graduate for

> Raising the intellectual tone of society, at cultivating the public mind, at purifying the national taste, at supplying true principles to popular enthusiasm…at giving enlargement and sobriety to the ideas of the age….It prepared him to fill any post with credit, and to master any subject with facility….He is at home in any society, he has common ground with every class; he knows when to speak and when to be silent; he is able to converse, he is able to listen; he can ask a question pertinently…he is a pleasant companion, and a comrade you can depend upon; he knows when to be serious and when to trifle" (Newman, 1859/1966, pp. 125-126).

This interpretation implies that the university is the repository of the greater society's culture. The university plays a central role in maintaining culture and inculcating it in the next generation.

The second interpretation is the German tradition illustrated by Wilhelm von Humboldt's (c. 1809) *über die innere und äußere Organisation der höheren wissenschaftlichen Anstalten zu Berlin* (*On the Spirit of and the Organizational Framework of Intellectual Institutions in Berlin*). Humboldt saw the purpose of the university as advancing knowledge through discovery; the key task was students and professors working together in this discovery process. Although the British model was originally exported to the original American colonies, it quickly gave way to the Humboldtian model as the prototype for the current-day American research university (Niblett, 1974; Kerr, 1963/2001; Stewart, 1962).

As we can see from both the British and German models, vocational training was not a central role of the university of the early 1800s. In retrospect, this lack of vocational training is an ironic twist is the history of the university. The prototypical form of a medieval university was a Faculty of Arts and three "superior faculties" of Theology, Law, and Medicine. These three superior faculties correspond to what we would today label as "professional schools." The oldest continually operating university today—The University of Bologna—was particularly known for its Faculty of Law; The University of Paris, for its faculty of Theology (Brundage, 2008; Compayré, 1893; Pedersen, 1997; Perkin, 2006; Wieruszowski, 1966).

Scholars (e.g., Collini, 2012; Kerr, 1963/2001; Lucas, 1994) explain such ironies by pointing to the multiple purposes served by universities. In its centuries-long existence, the university has accepted multiple purposes, including some that are not necessarily synergistic (e.g., holding high academic standards and fielding competitive sports teams). Most of these purposes were accepted at the request of munificent benefactors. The medieval university had a Faculty of Theology and a Faculty of Law because of its two key financial benefactors—the church wanted training of clerics and the king wanted training of administrators. As the university in the past 100 years has generally distanced itself from the church, a "Faculty of Theology" is no longer an essential central element of a prototype university of the current century.

The British university model of 1800 was influenced by the preferences of its benefactors. The influential elements of British society supported the university because it provided the desired "finishing school" for gentlemen. The German model evolved as a backlash against religious and political influence in the university. For example, prior to Humboldt, sciences were not particularly welcome "at the table" in the university because science at times was at odds with a key benefactor: the church (e.g., Kepler's and Galileo's difficulties with the church).

In the mid-nineteenth century, governments began formal requests of the university to support vocational education. For example, needs for better training in agriculture and engineering were viewed as being in the national interest. In the United States, the Morrill Act of 1862 provided government funding to agricultural and engineering initiatives by American universities. These preferences of the financial supporters of the university opened the doors once again for vocational training (Collini, 2012; Kerr, 1963/2001; Stewart, 1962).

The Return of Vocational Training

In 1870, there were 63,000 students enrolled in degree-granting institutions of higher education in the United States—about one percent of the 18-24 age population. In 2022, the number was over 18 million, and 62 percent of recent high school graduates attended such institutions (National Center for Educational Statistics, 1993; 2023, Tables 302.10 and 303.10). The nineteenth and twentieth centuries saw a transition from higher education for the elite to higher education for the masses (Geiger, 1993; Kerr, 1963/2001; Trow, 1970, 1972). The vast majority of these millions are not coming to the university to study Greek and classics as the 1870 students frequently were. Most are coming for vocational training which prepares them for careers such as accountants, first grade teachers, journalists, and tuba players.

One of the key changes in the university of the nineteenth and twentieth centuries was the rise of professional schools. The first university-based pharmacy school in the United States was established in 1821; the first university-based business school, 1881; the first university-based journalism school, 1908. The mid- and late 1800s saw a dramatic increase of professional schools; for example, an average of one new university-based law school per year was created in the United States from 1840 to 1860 (Burrage, 2006). Historian Carter Daniel (1998) asserts that the rise of the university-based business school was one of the most influential changes to American higher education of the twentieth century.

Today, one professional school—the business school—accounts for nineteen percent of all bachelor degrees conferred in the United States, the largest proportion of any discipline (disciplines as categorized by the National Center for Educational Statistics, 2023, Tables 322.10 and 323.10). Three professional schools combined—business, education, and engineering—account for 45 percent of all master degrees conferred. In the twentieth and twenty-first centuries, students have come to the university for vocational training, and the university has obliged.

Before discussing gains and losses from the transition to university-based professional schools, a discussion of the concept of a “profession” will be helpful. That discussion is next.

What is a Profession?

Unfortunately, there is no generally accepted definition of what constitutes a profession or what separates it from other occupational groups; additionally the criteria are relative and not stable over time (Augier & March, 2011; Friedson, 2001; Leicht & Fennell, 2001). For the sake of a common starting point, we will work with Abbott’s (1988, p. 8) admittedly “loose definition” of the term: “Professions are exclusive occupational groups applying somewhat abstract knowledge to particular cases.” There are three key elements in this characterization. First, professions are successful in asserting exclusive jurisdiction to a specific body of knowledge. For example, dentists claim jurisdiction over a defined domain of knowledge and the application of that knowledge. They have obtained legal statutes to help them protect their jurisdiction. Anyone not recognized by the profession as a dentist is prohibited from practicing dentistry; furthermore, society generally accepts the dental profession’s need to establish this jurisdiction. Unauthorized people practicing dentistry would be a scenario the public generally would see as harmful to society.

Although these prohibitions serve society’s interests, they can also serve the profession’s political interests as well. Abbott (1988) observes that, if a profession does not protect its exclusivity, the application of that knowledge is at risk of being claimed by other professions. For example, the pharmacy profession has obtained legal protection for its sole authority to dispense prescription drugs. In some governmental jurisdictions, it has obtained legislative restrictions against medical doctors being able to dispense prescription drugs. Doctors prescribe the drugs, but the prescription must be filled by a pharmacist. Such legal protections may serve society, but they also protect the pharmacy profession from its centrality in the medical field being usurped.

Some of these professions have associated professional organizations; for example, architects have the American Institute of Architects (AIA). Among other roles, these associations work to protect society from “self-proclaimed” architects or dentists who might otherwise be the purveyors of sub-standard services. These organizations also work to protect the jurisdiction and reputation of the profession, and commonly help those who wish to join or continue membership in the form of recognized credentials. Specifically with architects, the AIA and other organizations such as the National Council of Architectural Registration Boards (NCARB) exist to assist future architects through the licensing process and/or maintain a license as an architect (AIA, 2024; NCARB, 2024).

Second, a portion of the body of knowledge to which the profession asserts exclusive jurisdiction is abstract (Friedson, 2001; Hughes, 1963; Jackson, 1970). As characterized by Hughes (pp. 655-656):

> A profession delivers esoteric services—advice or action or both—to individuals, organizations, or government; to whole classes or groups of people or to the public at large….The nature of the knowledge…on which advice and action are based is not always clear; it is often a mixture of several kinds of practical and theoretical knowledge. But it is part of…the professional claim, that the practice should rest upon some branch of knowledge to which the professionals are privy by virtue of long study and by initiation and apprenticeship under masters already members of the profession.

Most professions are rooted in a knowledge base in which the profession is well-trained but over which the profession does not have exclusive jurisdiction. Some professions are rooted in a synthesis of multiple disciplines of study (Torstendahl, 1993). For example, the medical profession is rooted in a study of anatomy, pathology, physiology, pharmacology, and organic chemistry.

Although these bases provide the straightforward theoretical knowledge, professions also include an element of tacit knowledge gained through practice. These additional bases of tacit knowledge are what constitute our second element of what separates a profession from other occupations. As described by Jackson (1970, p. 7):

> [Professions] encompass specialized areas of knowledge which affect all individuals but where only a few can become expert. By virtue of their character, these areas of knowledge…take on a mystique which distinguishes them from more mundane matters. The professional becomes necessarily the high priest of that area of knowledge in which [s/he] is acknowledged to be competent.

Heckscher and Martin-Rios (2013, p. 136) capture the perspective that professions are truly unique by explaining that professionals "are initiated into complex and obscure mysteries that outsiders cannot understand." In summary, the literature on professions generally agrees that—while professions are typically rooted in basic disciplines of study (e.g., medicine rooted in organic chemistry among other disciplines)—there is an element of "mystery" to the additional esoteric knowledge that a professional draws upon. This additional knowledge is what Abbott (1988) described as abstract knowledge.

Third, professions apply their unique abstract knowledge to particular cases. In medicine, a "particular case" will usually involve applications at the individual person level. For example, a medical doctor needs to advise a specific, individual patient regarding whether knee replacement surgery will resolve a certain problem. An engineer may be called upon to apply engineering knowledge to building a specific bridge in a specific location or to provide an assessment of whether a specific aging bridge is unsafe.

In summary, a profession (1) asserts exclusive jurisdiction over an identifiable domain of knowledge, (2) draws upon abstract knowledge to which only members of the profession are privy—in addition (potentially) to more objective knowledge (e.g., organic chemistry), and (3) applies its unique blend of knowledge to address specific cases.[1]

Gains

Four important gains occurred as a result of professional training moving to university-based professional schools. The first three are relatively straightforward (Burrage, 2006; Camp, 2012; Pulitzer, 1904).

More Uniform Training

First, professionals receive a more predictable, uniform training. When training was received through one single master, the professional focus of that master would influence the training. For example, if a person trained with an attorney who specialized in real estate law, the trainee did not receive the same legal training as a person who trained with a criminal defense attorney. Additionally, a typical pattern is that many of the most successful professionals move toward being specialists (Abbott, 1988; Hugstad, 1983; Schiff, 1969). In most professional schools, (e.g., medicine), the initial training is as a generalist, and as medical doctors progress, they become more specialized. The more successful they become, the more narrowly they have the opportunity to specialize. For example, the most accomplished surgeon at performing the “Tommy John” surgery for baseball pitchers could have a fulltime practice in that single niche. Therefore, the training effect is that the most accomplished professionals are often very specialized, and trainees who want to learn from those most accomplished professionals would not be receiving a broad training in the greater profession.

Training from Multiple Experts

Second, training in professional schools provides exposure to multiple experts who have varying (to some degree) opinions, preferences, experiences, and prejudices. The apprentice who studies with a single master encounters idiosyncratic elements of that master’s biases, personality, and choices. Because professional work involves applying tacit knowledge built up through experience (Abbott, 1988), the unique experiences of each professional will result in those unique idiosyncratic preferences. For example, Bosk (1979) describes medical school surgical residents who warn each other that attending physician A prefers one type of suture while attending physician B absolutely does not accept residents using that type of suture. The residents are not sure why this difference of opinion exists, but they are certain that they must follow the preference of whichever attending physician they are working with at the time. Working with multiple experts allows the professional trainee to see that some of these tacit knowledge preferences are not the only way to view the professional work.

More Depth of Expertise

Third, a professional school can provide training from experts who have greater depth of expertise. As described previously, a profession usually rests on more general bodies of knowledge (Torstendahl, 1993); for example, engineering is based in mathematics, physics, and chemistry. An engineering school has the potential to provide an expert instructor who is not an engineer, but holds a Ph.D. in physics. A law school can provide an expert in ethics who is not an attorney but holds a Ph.D. in philosophy. A professional school has the opportunity to provide a deeper level of expertise to its trainees, especially in those underlying disciplines that make up the foundation of the profession. If a profession is rooted in foundational bases of knowledge (e.g., engineering being rooted in mathematics, physics, and chemistry) and the university is the “home” of the study of those root disciplines, then proximity (both physical and conceptual) to those disciplines is beneficial to the profession and its trainees (Torstendahl, 1993).[2] Further, to deepen knowledge bases, professional schools often form associations themselves to better lead and develop pedagogy for training future professionals. For example in architecture, there is the Association of Collegiate Schools of Architecture (ACSA), whose mission is to “lead architectural education and research” (ACSA, 2024).

Increase in Stature for the Profession

The fourth gain is not as straightforward as the first three, in part because it does not apply to all university-based professional schools. This gain is that some professions gain stature in society from their affiliation with the university (Adam, 2009; Innis, 1944). Some professions—particularly the “original” three professions of theology, law, and medicine—have an undeniable status in society that is enhanced very little by the status of the university. In part, this status comes from elements identified by Abbott (1988). A professional applies abstract (“mysterious”) knowledge that cannot be fully understood by people not trained in the profession. The profession asserts exclusive jurisdiction over that body of knowledge; the exclusivity often extends to legal protection (e.g., the situation of dentists and architects) from interlopers who would attempt to practice the profession.

However, some vocational groups do not have the status accorded by society to medical doctors, attorneys, or ministers. One intentional strategy of some of those groups is to build the case that they indeed are a profession and deal in abstract knowledge that cannot be understood by those who are not members of the “profession.” One approach of such groups (e.g., journalists, business managers, hotel managers, and police officers) is to co-opt the status of the university by proposing that their "profession" needs a professional school within the university. For example, in the 1890s, Joseph Pulitzer offered \$2 million (today's equivalent of about \$74 million) to Columbia University and to Harvard University if each would start a school of journalism (Camp, 2012, Carey, 1978; Pulitzer, 1904).[3]

At the time, journalism was not particularly viewed as a legitimate profession. Camp (2012) and Carey (1978) suggest that Pulitzer's goal was not to provide training in a domain recognized as a respectable profession. Rather, his logic was opposite; Pulitzer wanted the affiliation with Columbia University or Harvard University to ascribe a legitimacy to the profession that did not exist at the time.

> While Pulitzer was not so keen on university education—he said that "the best college was the college of the world" and that he preferred "the university of experience"—he recognized the intimate relationship between university education and the enhanced status of journalists and journalism….the quid pro quo was the power of the university to enhance the image of professionalism (Carey, 1978, p. 848).

As described by Camp (2012, p. 245), "No matter how one dressed it up, journalism [of the early 1900s] lacked the content, theory, and specialized knowledge associated with [a university] curriculum." However, university standing did provide the legitimacy to journalism that Pulitzer desired. In retrospect, the President of the Association for Education in Journalism (Carey, 1978, p. 850) concluded "It turns out that status and prestige, not knowledge or ethics or rectitude, turn out to be the key to professionalism."

In proposing the first business school at an American university, Joseph Wharton had a vision that

> drew upon the prestige of science, the professions, and the university itself in arguing that management could be conceived as a science and transformed into a profession on the model of the "high" professions of medicine, law, and divinity, which had all been part of the Western university from its medieval origins (Khurana and Penrice, 2011, pp. 31-32).

In summary, some professions that had existing status in society (e.g., law, medicine) gained very little additional status from affiliation with the university through the establishment of university-based professional schools. Other professions (e.g., business management, journalism) did gain status in the greater society. This increase in status derived from co-opting the university's status as well as building the argument that the profession applied abstract knowledge that could not be understood without training in the profession.

Losses

While the transition of professional training to university-based professional schools did indeed provide multiple gains, the change also resulted in losses. These losses can be categorized in four groups.

Loss of Control Over Who Trains for and Enters the Profession

The first category is losses associated with controlling entry to the profession. Some professions have a strong culture, and one element of that culture is often promoting the belief that members of the profession having a "higher calling" (Parsons, 1939). Obviously, members of the original three professions (theology, law, and medicine) hold that members of the profession have a higher calling. However, other professions also subscribe to that higher calling. For example, journalists believe that protecting confidential sources is critical, and many journalists would go to jail rather than reveal those sources. In lobbying for the first university-based school of business, Joseph Wharton had a vision of training professionals who would see business in the greater social context and would conduct business in a socially responsible manner (Khurana, 2007; Khurana and Penrice, 2011). Joseph Pulitzer used essentially the same argument for a university-based school of journalism (Camp, 2012; Pulitzer, 1904).

Members of the profession often have beliefs about what qualities should be held by people accepted to train for the profession. For example, in surgery training, Bosk (1979, p. 60) cites one medical school surgeon as asserting "Look, I could teach a gorilla to operate in six months, but I can't teach honesty and responsibility. It's the people who have these qualities who make outstanding surgeons." In another profession, one set of authors (Jungnickel et al., 2009) makes similar assertions about the need for pharmacists to be trustworthy above reproach. Having such beliefs, members of the profession have a vested interest in screening people for the privilege of being accepted for training in the profession.

However, the general norm for the university-based professional school is that the school decides who is selected to train for the profession. Also, university-based schools apply selection criteria based on the values of the university (e.g., undergraduate GPA, GRE scores) that may not be 100 percent consistent with the selection criteria that the profession might prefer. In many professions, the aspiring entrant to the profession must certainly meet entry requirements set up by the profession to protect their exclusive jurisdiction (Abbott, 1988); however, the university-based professional school (and its selection criteria) is the *first* gatekeeper to the profession and the profession is the sequential *second* gatekeeper; if aspiring attorneys or dentists are not admitted to the professional school, they will never have the opportunity to determine if they would have met the entry criteria set by the profession.

In addition to the qualities of potential trainees, a more rudimentary issue is the number of people permitted to train for entry to the profession. Again, the preferences of the profession and the university often diverge:

> Full-time teachers have had little interest in restricting the number of entrants to the profession, and have on the contrary, often wished to increase the number of their own students, and therefore the number of potential recruits, or potential competitors, regardless of the present conditions within the profession (Burrage, 2006, p. 23).

More recently, Thies (2010) notes that, when the economic downturn of 2009 resulted in fewer opportunities for newly minted attorneys, law schools did not move proactively to reduce enrollments. While Burrage and Theis are addressing law schools specifically, the same effect is present in other university-based professional schools as well. Streib (2009) notes that, in a time when journalists are continually losing jobs, the enrollment of journalism schools continues to increase. For over half a century, music schools have graduated exponentially more performance majors (e.g., trumpet players and euphonium players) than will ever find an opportunity in the profession for which they were trained by university music schools.

In sum, when training of professionals went from practice-based training to training in university-based professional schools, the professions lost direct control of determining the preferred qualities and the quantity of applicants granted the opportunity to train for the profession. The next category of losses deals more specifically with the training received.

Loss of Control Over Training in the Profession

The second category is the loss of direct control of the training that potential entrants to the profession receive. This loss of control is problematic because university-based professional schools essentially serve two masters—the profession and the university. However, the agendas of these two masters do not necessarily converge (Augier and March, 2011; Bok, 2015; Simon, 1997). The profession believes that a professional school should prepare new entrants to the profession. The university has an agenda that includes basic research and discovery of knowledge. However, this research and discovery of knowledge is often linked to the underlying disciplines rather than the profession and its esoteric knowledge. As noted by Herbert Simon (1997, pp. 348-349):

> Leading engineering schools…might almost better be described as schools of science rather than schools of engineering. Most of the research topics they pursued would be appropriate to physics, chemistry, or mathematics departments….Similarly, research in leading medical schools has in many ways closer connections with biology and biochemistry than with medical practice.

To demonstrate that they are legitimate members of the university, professional schools have to demonstrate that they value basic research and discovery. By its very nature of being abstract (Abbott, 1988), the esoteric knowledge of the profession is usually not fertile ground for such research. The underlying disciplines more readily provide that connection to what the university values.

Although a strong connection to the underlying disciplines is necessary for the professional school to be welcome in the university, members of the profession will complain that university-based professional schools are not attentive to the goal of training professionals. With regard to law schools, Newton (2010, p. 109) asserts.

> The practical competencies that the vast majority of American law schools undervalue or ignore include basic litigation skills such as oral advocacy and the questioning of witnesses, factual investigation, negotiation, and counseling. These skills, of course, are the very ones that a typical practicing lawyer uses on a daily basis.

Johnson (1990, pp. 1232-1233) echoes this concern:

> In many of the courses offered at our top law schools, the study of law now means in essence the study of anything but law….Law schools continue to focus more on interdisciplinary, law-related studies and theories of law and less on the realities of practice.

Langbein (1996, p. 6) concludes that “The faculty of [American] law schools seem ever less interested in law.” He further observes (1996, p. 3) that “The modern American law school now styles itself a center of scholarship, at which the demands of professional training have been subordinated.” Similar complaints have been lodged at the university-based schools of business (e.g., Bennis and O’Toole, 2005), journalism (e.g., Lewis’s well-publicized 1993 assessment of the Graduate School of Journalism at Columbia University), and music (e.g., Harrison et al., 2012).

Unfortunately for members of the profession who logically believe a professional school should be involved in training professionals, the university-based professional school must demonstrate that it respects the values of the greater university. Johnson’s concerns that law schools focus on “anything but the law” and “interdisciplinary law-related studies” are accusing the law school of preferring the university’s agenda over the profession’s agenda.

This tension between the agendas of the university and the profession leads to two concerns about the training professionals receive in university-based professional schools. First, decisions regarding curriculum and training methods are made by the university faculty within the professional school, often with constraints imposed by the greater university (especially for undergraduate majors such as business or music). Because professions have an element of “mystery” and esoteric abstract knowledge, deciding what experiences the trainees in the profession should have is necessarily a subjective decision. Those decisions are no longer directly controlled by practicing members of the profession (Jungnickel et al., 2009).

However, this control is not absolute, as licensed professionals can teach courses and many professional schools are reviewed by accrediting bodies. For example, in architecture schools, the National Architecture Accrediting Board (NAAB) reviews and maintain guidelines for programs for training technical skills for future architects (NAAB, 2024). In such situations as architecture, the preferences of the university are—to some degree—counter-balanced by the profession’s cohesion and its accrediting bodies. In the extreme opposite situation, business (with the exception of accounting) and music have no licensing requirements and have no strong professional associations that can insist on the profession’s preferences influencing the curriculum. For business and music, the key accrediting bodies are composed primarily of academics (i.e., representing the university’s agenda) rather than practicing members of the profession.

Second, the training may not be conducted by actual members of the profession. This situation can vary from one professional school to another. The university-based medical school maintains teaching hospitals, and a portion of the medical school faculty members are medical doctors designated as “clinical faculty.” These doctors often are actively engaged in the teaching hospital and/or in other consultations regarding patient care. Medical residents train under the watchful eye of clinical faculty members. At the other extreme, business schools often have faculty members who were hired because of their ability to conduct research in domains where they have never actually practiced (Bennis and O’Toole, 2005). For example, business school students frequently receive courses in “personnel selection” or “personal selling” from faculty members who have never been employed as practicing professionals in those areas.

This situation of training being received from individuals who are not members of the profession is, however, not without its benefits (Simon, 1997). Business school faculty are often more informed than practitioners on the theoretical aspects of the content, are more capable of interpreting the findings of empirical research, and are able to see the topics (e.g., “personnel selection”) in the greater business context than could typical practitioners. In some content domains (e.g., the business school topic of information systems security), being able to discuss where the profession is moving in the future and why those changes are occurring can be as important as describing current practice.

However, this situation does mean that the training is coming from individuals who may not have a vested interest or ability for maintaining the culture of the profession. That aspect is discussed next.

Loss of Ability to Indoctrinate New Entrants to the Profession

As noted by Burrage (2006, p. 24), once a profession loses control of selecting and training new entrants, it is on a “slippery slope” toward losing control of the profession’s culture and indoctrinating new entrants to that culture.

> From the practitioners’ point of view, the ideal form of training, therefore, was one that they themselves controlled, a stage [the French term for a law apprenticeship], a pupillage or an apprenticeship, because this secured, at one and the same time, their direct control over both entry and training, over both the numbers and the character of their colleagues and successors. No one could enter the profession unless accepted as an apprentice by a practicing member. No one could begin to practice without the socialization that apprenticeship necessarily entailed. Practice-based, practitioner-controlled training, or some form of apprenticeship, best maintain the inter-generational ties that are the foundation of any community….The new entrant has no choice but to accept the authority of the older member if he is to enter the community at all.

Further Burrage (2006, pp. 23-24) observed that

> Practitioners have always been reluctant to lose control of training for their profession, since the interests of those who taught law for a living were rarely the same, and often in direct conflict with those who practised it….Teachers have, moreover, seldom displayed much respect for, or interest in, the customs and ethics of the practitioners, or the problems of the everyday practice.

The majority of law school professors (Burrage’s focus) are at least nominally members of the legal profession (i.e., holding a J.D.). However, even in that school, the faculty members often feel more alignment with the academic profession than with the legal profession (Newton, 2010). Cribbett (1984, p. 250), a former law school dean, notes that it is common in society to see lawyers as “a largely parasitic class of technicians devoted to serving the rich and powerful.” If law school faculty align more with university professors than with lawyers—having the opportunity to operate in an “ivory tower” and espouse idealistic values—it is not difficult to see that law school professors might endorse the idealistic “parasitic class” mindset. Such a view would be consistent with Burrage’s concern that, instead of embracing the legal profession’s culture and indoctrinating it in new trainees, they might instead display contempt for that culture. Especially when professional school faculty members align more with the academic profession rather than the profession of their respective school, those faculty members will not hold indoctrination into the culture and values of the profession as highly as they otherwise might.

As a counterpoint, many professions do very well at indoctrinating their members once they leave school and become practicing members of the profession. While the profession may not control who is initially trained in terms of education, some professions can and do implement licensing and continuing education to control the number of, skill of, mindset of, and ability to practice the profession. For example, in architecture people cannot technically identify themselves to the public as “architects” if they are not licensed, or if their membership has lapsed due to insufficient continuing education (AIA, 2024; NCARB, 2024). Further, the licensing program attempts to standardize types of experiences that a future architect could and ought to have to train them for the profession (NCARB, 2024), in a way different from professional schools.

In sum, while some professions cannot depend on professional schools to indoctrinate new entrants to the profession, this situation does not preclude the possibility that effective indoctrination can occur once those entrants join the profession. Indoctrination to the profession’s values is also linked to our fourth category of losses.

Ability to Impart and Assess Tacit Knowledge

According to Abbott (1988), one identifying element of a profession is abstract, tacit knowledge. That knowledge is gained through “study and…apprenticeship under masters already members of the profession (Hughes, 1963, p. 656). However, as professional training has moved to professional schools, the opportunity to perform the work of the profession under a master has not always remained a high priority.

Historically, one of the most effective professional schools at providing this clinical experience is the medical school. Medical schools have teaching hospitals, and medical residents (i.e., “apprentices” and “journeymen” in guild terminology) do work in the profession under the supervision of medical school faculty members (“attending physicians”) as they provide care for actual patients with actual medical needs.

Because the medical school is the historical prototype of a professional school insisting on clinical training, it is instructive for other professional schools to consider what this experience provides to that profession and its professionals. Sociologist Charles Bosk (1979) conducted a field study in which he followed and observed surgery residents and their attending physicians (i.e., masters, in guild terminology) in a university teaching hospital. In his report following this study of many months, one key conclusion was that surgery residents committed two very different types of mistakes with two very different types of responses from the attending physicians.

Technical Errors. First is what Bosk (1979, p. 37) characterizes as a “technical error.”

> When a surgeon makes a technical error, he is performing his role conscientiously but his skills fall short of what the task requires. Technical errors are expected to happen to everyone, but rarely. They are expected to happen to everyone because surgeons understand that theirs is at best an imperfectly applied science.

Technical errors serve an important function. A technical error is a teaching opportunity, and teaching hospitals need teaching opportunities. An example from Bosk is an inexperienced surgery resident assisting in colon surgery who mistakenly removed a hemostat (a clamp). Feces poured out of the colon into the abdominal cavity. The lead surgeon calmly demonstrated how to suction and cleanse the area properly, and the procedure continued as if nothing unusual had happened.

Attending physicians often respond to technical errors by suggesting readings or other resources that will remedy the lack of knowledge. From his observations and interviews, Bosk (1979, p. 37) concluded that attending physicians “can forgive even the most serious lapses in technique, the grossest of mistakes” if the mistakes are technical errors. Medicine is a “practice,” not an exact science.

Normative Errors. The second type is what Bosk (1979, p. 51) termed the “normative error.” It “occurs when a surgeon has, in the eyes of others, failed to discharge his role obligations conscientiously.” The surgery profession is a very strong culture with some of its expectations being very important. Examples of those expectations include respectful dealings with other medical professionals such as anesthesiologists and nurses, performing all necessary tasks (e.g., requesting laboratory tests to be conducted) in a timely and reliable manner, and immediately acknowledging any technical errors rather than hiding them. A critical element of the clinical training of surgery residents is for the attending physicians to be convinced that each resident has been indoctrinated into and accepted that culture. It provides what Burrage (2006, p. 24) described as the “inter-generational ties” that perpetuate the culture of the profession.

Different Responses. Bosk’s (1979) conclusion was that attending physicians had very different responses to technical errors versus normative errors. Technical errors are committed by conscientious, well-intended trainees in the profession. Normative errors are committed by trainees who have not accepted the long-standing, inter-generational culture and norms of the profession’s culture. Technical errors are to be expected on occasion. Normative errors suggest that a person is dishonest, irresponsible, or rejects values the profession holds dear. Because technical errors are expected teaching moments for conscientious trainees, the response is constructive and rational. However, the response to normative errors is punitive, and often is even emotional and sarcastic. The response to normative errors is much stronger than the response to technical errors. Bosk (1979, pp. 177-178) concludes that the surgery profession is “tolerant and forgiving of technical error and intolerant and unforgiving of moral error.”

Implications. The implications of Bosk’s (1979) work in identifying technical errors versus normative errors and the responses to them should give many other university-based profession schools reason for pause. The more professional schools depend upon traditional classroom work rather than clinical experiences, the less they are able to identify normative errors should they occur. When the work of the profession is simulated rather than actual (e.g., classroom discussion of cases), normative errors will not have the opportunity to occur. Another way of phrasing this concern is that, if trainees in the profession are inclined toward rejecting long-held values and norms of the profession, that inclination is unlikely to come to light.

As a caveat, we need to recognize that generalizing from the training of surgeons to the training of engineers, architects, or accountants—for example—is somewhat tenuous. There is little evidence to suggest that normative errors in other professions are as critical as they are in the surgery profession. However, there is no reason to believe that normative errors are inconsequential in other professions. One does not have to look too far to find examples such as accountants for Enron or engineers in the Volkswagen scandal regarding emissions of diesel vehicles.

Synthesis: Insight from Aristotle

To summarize, many of the gains from moving to university-based professional schools are linked to a more uniform training from a faculty with more depth of knowledge and expertise than a single master can impart. Many of the losses are linked to the profession’s loss of control of the training to a faculty who serves two masters (i.e., the profession and the university) and is often unwilling to and/or incapable of indoctrination to the long-standing culture and values of the profession.

The basic elements of this dilemma were also articulated by Aristotle, who observed regarding education, that:

> [T]he existing practice is perplexing; no one knows on what principle it should proceed—should the useful in life, or should virtue, or should the higher knowledge, be the aim of our training; all three opinions have been entertained. Again, about the means there is no agreement. (translated by Jowett, 1885, p. 245)

Specifically in university-based professional schools, the university’s expectation is that the school will be involved in the discovery and transmission of knowledge—or “higher learning” according to Aristotle. The profession’s expectation is that the school will be involved in providing an education that has utility for the practice of the profession. The profession and society at large expect that the school will be involved in promoting the virtuous practice of the profession. Unfortunately for the profession, the university “holds the trump card.” As phrased by Augier and March (2011, p. 268), “The school serves the profession, but it exists in a university that is dedicated to the independent pursuit of knowledge.” Professional schools are inhabited by faculty members who will not be successful in their academic careers and will not be welcome to remain (e.g., receiving tenure) unless they satisfy the expectations of the university. Satisfying the expectations of the profession or any other stakeholder necessarily becomes secondary.

Aristotle’s third role of promoting virtue is no longer a task the university is well-equipped to pursue. When the church was a key benefactor of the medieval university, the university promoted virtue consistent with the teachings of the church. Newman’s (1859/1966) view of the university as a repository of society’s culture included espousing what was virtuous. However, with the Humboldtian (c. 1809) tenet that the university should be free of religious and political influence, the twentieth century university jettisoned its linkage to the church. An unfortunate side-effect of this severance is that the university no longer coalesces around a common view of culture or a common definition of virtue (Lewis, 2006; Lucas, 1996; Readings, 1996). Therefore, university-based professional schools being able to inculcate the mindset of acting in the interest of the greater society is a shaky proposition. Bok (2015, p. 286) questions whether any professional school can accomplish this task:

> It is less certain whether law professors will discover how to help their students acquire greater ethical judgment and a firmer commitment to furthering the ideals of their profession and the interests of society. On this score, they face the same challenge as professors of medicine and business….Teaching ethics to students is one thing; giving them the ideals and strengthening their character are much more difficult. Whether any professional school can accomplish such feats remains an open question.

As phrased by Carruthers (2008, p. 127) regarding music schools:

> While human understanding, social responsibility and the like may be acknowledged as desirable outcomes, most university performance programmes focus on developing human capital—on creating better musicians—who may or may not be better people for it.

Multiple critics (e.g., Etzioni, 2002; Podolny, 2009) assert that professional schools bear some degree of responsibility for ethical lapses among engineers, accountants, and other professionals involved in events such as Enron’s collapse, Volkswagen’s misrepresentation of diesel car emissions, and the banking and real estate “meltdown” of 2009. A key element in Bok’s skepticism regarding professional schools’ ability to inculcate ethics is that some professional schools—with medicine being one clear exception—are not structured in a way whereby normative errors are likely to be identified and dealt with in the professional training. When a professional school curriculum is primarily oriented toward identifying lapses in knowledge (i.e., technical errors), the mechanisms to observe whether normative errors might occur simply do not exist in a sophisticated form.

A Pragmatic Look Forward

Pragmatically, professional schools seem well-ensconced in the twenty-first century university. It is unlikely that they will be evicted in the foreseeable future. Therefore, we may appreciate the gains that have come from professional training moving to the university context. More uniformity in training, training from multiple experts, and more depth of expertise in those conducting the training all seem to bode well. Especially if we look from the perspective of the professions, the political benefit of increased stature serves the profession. Whether this political benefit serves the greater society remains a more open question.

Because professional training occurring under the auspices of the university is unlikely to change, we should be aware of losses and consider how those losses might be ameliorated when possible. Underlying some of these losses is the reality that a professional school serves two masters—the profession and the university. Professions that have the cohesion to voice their preferences in a manner the professional school must acknowledge (e.g., architecture) are in a better position to counter-balance the preferences of the university. However, some “professions” (e.g., music, business) do not have the benefit of a unified culture—such as that of surgeons or attorneys—which permits the profession the possibility of speaking with a single, cohesive voice. Those professions not in a position to speak with a cohesive voice are more at risk of the university’s preferences trumping the preferences of the profession when it comes to decisions such as curriculum. For example, Milam (2010, p. 33) advocates that the teaching profession must speak with a strong voice to counter-balance the agenda of universities and—particularly in the case of education—political agendas of special interest groups who gain the ear of legislative bodies.

This conclusion is not intended to say that there are no formal or informal bridges between the profession and its corresponding professional school. Depending upon the particular professional school, many bridges exist such as industry-populated advisory boards, speaker series, and other formal and informal mechanisms to promote the interface between university-based professional school faculty members and students and the profession and representative members. This conclusion is intended to assert that the professional school “serves two masters”—the university and the profession. Professions that have a unified voice and are in a position to insist on their input influencing professional school training are better positioned to counter-balance the possibility that the professional school and its faculty may identify more with the university’s agenda than with the profession’s agenda.

Two key losses when professional training moved to professional schools were that (1) the profession has less opportunity to indoctrinate new entrants to the profession’s culture and (2) trainees have less opportunity to train under the watchful eye of masters in the profession. Approaches to dealing with these two losses are addressed next.

Indoctrinating New Entrants to the Culture

This loss concerns the reality that some—though not necessarily all—professional schools are not able or willing to focus on indoctrinating new entrants to the culture of the profession. A profession's culture, ethics, and values are an inter-generational connection. However, in the current environment, the profession—and society at large—should not expect that professional schools have the means to indoctrinate that culture in the next generation. However, this may be a mixed blessing. If the profession is diligent in indoctrinating its new entrants *after* they complete professional school (e.g., architecture), that indoctrination occurs in a manner the profession wishes without being biased by the university's agenda.

Watchful Eye of Masters

One area in which many professional schools have been making great strides in recent decades is in counter-balancing the classroom component of professional training with a clinical component that occurs under the watchful eye of masters in the profession. Here are three examples from different professional schools.

First, a typical undergraduate student studying elementary education in the United States in 1970 often had only one clinical experience ("student teaching"), and it occurred in the last semester of study. Today, many schools of education get aspiring elementary school teachers into the classroom for clinical experiences throughout their four-year program of study, including their very first semester (e.g., Darling-Hammond, 2010; University of Georgia College of Education, 2024).

Second, law schools have also been very deliberate in increasing clinical opportunities for their students. In 1995, ten percent of UK law schools reported having a "live-client clinic;" in 2015, the proportion had increased to 70 percent (Campbell, 2016). In part, law school clinics serve a purpose not necessarily available to a variety of other professional schools. The legal profession has long accepted that many of the people most in need of legal assistance are those least able to afford it. However, given that society is served when all people have equal access to legal assistance, these clinics have provided a service to the greater society. Additionally, the nature of the legal profession is such that trainees can perform a number of background tasks such as research and drafting actual documents utilized in legal proceedings in addition to some of the more public elements such as representing clients and appearing in court (Anderson et al., 2018; Campbell, 2016; Nwedu, 2018; Stuckey, 2007).

Third, in Germany, the Baden-Württemberg Cooperative State University utilizes a model in which business, social work, and engineering students alternate between classroom learning and an on-going co-operative experience with the same employer throughout their degree program. To begin their training, students must simultaneously be accepted to the university and be accepted for the clinical experience by the employer (Baden-Württemberg Cooperative State University, 2024).

One challenge in university-based professional schools providing clinical opportunities is that the traditional university funding model does not provide resources for watchful oversight of clinical experiences by clinical faculty (National Council for Accreditation of Teacher Education, 2010). The funding model is typically based on (1) number of students taking classes in a typical classroom format and (2) potential to generate external research funding. One key reason the clinical opportunities afforded to medical school trainees in teaching hospitals are plentiful is that teaching hospitals generate self-supporting income in the form of fees paid by patients and reimbursed by third parties (Cooke et al., 2006; Perloff, 1992).

By contrast, law school clinics are often intended to serve those least able to pay, and, depending on the country, the third party payers are not as plentiful or munificent as those supporting the medical school's teaching hospitals. Similarly, clinical experiences in schools of education under the watchful eye of university clinical faculty cost money to employ and support those faculty, and the university is not necessarily eager to move resources from supporting its classroom and research missions to supporting clinical faculty (Many & Bohan, 2011). Some professional schools are in a good position to receive grants to support start-ups of clinical initiatives, but those grants may or may not support on-going operations (Many et al., 2011).

In summary, the traditional classroom model has made professional schools well positioned to detect technical errors by new or potential entrants. In earlier decades, some professional schools have not been in the best of positions to detect normative errors should they occur because clinical training was not a central element to preparing those new entrants. These recent changes professional schools have made to incorporate more clinical experiences increase the probability of detecting such errors.

Footnotes

[1] There are observers who reject the idea that some so-called professions meet all of these criteria (e.g., Barker, 2010; Denzin and Mettlin, 1968; Flexner, 1915; Goodall, 2011). That position casts doubts on whether the corresponding university-based "professional school" is truly a professional school. Augier and March (2011, p. 276) assert that "Business schools are professional schools by edicts of North American universities, but they do not train professionals as that term is normally understood." This is certainly a discussion that has merit; however, in one key respect, the discussion is moot. Those university-based schools exist, and they are unlikely to leave the university in the near future. As an example, business schools produce nineteen percent of the bachelor degree graduates and 23 percent of the master degrees conferred by American higher education (National Center for Educational Statistics, 2023, Tables 322.10 and 323.10). Regardless of what one labels them, the business school, the education school, and the music school (for example) act like professional schools, and the twenty-first century university is unlikely to forego the enrollment revenues that they obtain by maintaining those schools and producing those graduates.

[2] Clearly, medicine and engineering take great advantage of this proximity to the basic disciplines that the university provides. Some schools (e.g., journalism) are viewed by critics as illegitimate interlopers in the university in part because they do not take sufficient advantage of this proximity (cf. Camp, 2012).

[3] Both universities initially declined Pulitzer's overture. After a change in university presidents, Columbia finally accepted Pulitzer's offer in 1912. Harvard did not accept the offer (Camp, 2012*)*.

References

Abbott, A. (1988). *The system of professions: An essay on the division of expert labor.* Chicago: The University of Chicago Press.

Adam, G.S. (2009). Jim Carey and the problem of journalism education. *Cultural Studies, 23*(2), 157-166.

Aristotle (1885). *Politics* (translated by B. Jowett). Oxford: Clarendon Press.

American Institute of Architects (AIA). (2024). AIA. https://www.aia.org/

Anderson, C., Cino, J.G., Iannarone, N.G., & Wolf, L.E. (2018). Incorporating experiential learning in every class: Required courses, seminars, and live-client representation. In E. Grant, S. Simpson, and K. Terry (Editors), *Experiential education in the law school curriculum*. Durham, NC: Carolina Academic Press.

Association of Collegiate Schools of Architecture (ACSA). (2024). About ACSA. https://www.acsa-arch.org/about/

Augier, M. & March, J.G. (2011). *The roots, rituals, and rhetorics of change: North American business schools after the Second World War.* Stanford: Stanford Business Books.

Baden-Württemberg Cooperative State University (2024). Mission and vision. http://www.dhbw.de/english/dhbw/about-us.html

Barker, R. (2010). No, management is not a profession. *Harvard Business Review*, July-August 2010, 52-60.

Bennis, W.G. & O'Toole, J. (2005). How business schools lost their way. *Harvard Business Review*, May 2005, 96-104.

Bok, D. (2015) *Higher education in America* (revised edition). Princeton: Princeton University Press.

Bosk, C.L. (1979). *Forgive and remember: Managing medical failure.* Chicago: University of Chicago Press.

Brundage, J.A. (2008). *The Medieval origins of the legal profession: Canonists, civilians, and courts.* Chicago: The University of Chicago Press.

Burrage, M. (1993). From practice to school-based professional education: Patterns of conflict and accommodation in England, France, and the United States. In S. Rothblatt & B. Wittrock (Editors), *The European and American university since 1800.* Cambridge, UK: Cambridge University Press.

Burrage, M. (2006). *Revolution and the making of the contemporary legal profession: England, France, and the United States*. Oxford: Oxford University Press.

Camp, M. (2012). The J-school debate: Is the timing finally right for university journalism programs and the rest of the university community to work together? *The Journal of General Education, 61*(3), 240-263.

Campbell, E. (2016). Recognizing the social and economic value of transactional law clinics: A view from the United Kingdom. *Journal of Legal Education, 63*(3), 580-596.

Carey, J. (1978). A plea for the university tradition. *Journalism Quarterly, 55*(4), 846-855.

Carruthers, G. (2008). Educating professional musicians: Lessons learned from school music. *International Journal of Music Education, 26*(2), 127-135.

Collini, S. 2012). *What are universities for?* London: Penguin Books.

Compayré, G. (1893). *Abelard and the origin and early history of universities*. New York: Charles Scribner’s Sons.

Cooke, M., Irby, D.M., Sullivan, W., & Ludmerer, K.M. (2006). American medical education 100 years after the Flexner report. *New England Journal of Medicine, 355*, 1339-1344.

Cribbet, J.E. (1984). The changeless, ever-changing university: The role of the law school. *Arizona Law Review, 26*, 241-259.

Daniel, C.A. (1998). MBA: The first century. Lewisburg, PA: Bucknell University Press.

Darling-Hammond, L. (2010). Constructing 21st century teacher education. In V. Hill-Jackson and C.W. Lewis (Editors), *Transforming teacher education: What went wrong with teacher training and how we can fix it*. Sterling, VA: Stylus.

Denzin, N.K. & Mettlin, C.J. (1968). Incomplete professionalization: The case of pharmacy. *Social Forces, 46*(3), 375-381.

Epstein, S.R. & Prak, M. (2008). Introduction. In S.R. Epstein & M. Prak (editors), *Guilds, innovation, and the European economy,* 1400-1800. Cambridge, UK: Cambridge University Press.

Etzioni, A. (2002). When it comes to ethics, B-schools get an F. *The Washington Post*, August 4, 2002, p. B4.

Flexner, A. (1915). Is social work a profession? http://socialwelfare.library.vcu.edu/social-work/is-social-work-a-profession-1915/.

Freidson, E. (2001). *Professionalism: The third logic.* Chicago: The University of Chicago Press.

Geiger, R. (1993). Research, graduate education, and the ecology of American universities: An interpretive history. In S. Rothblatt & B. Wittrock (Editors), *The European and American university since 1800.* Cambridge, UK: Cambridge University Press.

Goodall, A.H. (2011). Experts versus managers: A case against professionalizing management education. In W. Amann et al., (Editors), *Business schools under fire: Humanistic management* *education as the way forward.* New York: Palgrave Macmillan.

Harrison, S.D., Lebler, D., Carey, G., Hitchcock, M., & O'Bryan, J. (2012). Making music or gaining grades? Assessment practices in tertiary music ensembles. *British Journal of Music Education, 30*(1), 27-42.

Heckscher, C. & Martin-Rios, C. (2013). Looking back, moving forward: Toward collaborative universities. *Journal of Management Inquiry, 22*(1), *136-139.*

Hofstadter, R. & Metzger, W.P. (1955). *The development of academic freedom in the United States.* New York: Columbia University Press.

Hughes, E.C. (1963). Professions. *Daedalus, 92*(4), 655-668.

Hugstad, P.S. (1983). *The business school in the 1980s: Liberalism versus vocationalism.* New York: Praeger Publishers.

Humboldt, W. von (c. 1809). *über die innere und äußere Organisation der höheren wissenschaftlichen Anstalten zu Berlin* (*On the Spirit of and the Organizational Framework of Intellectual Institutions in Berlin*). Translated by E. Shils (1970), *Minerva, 8*(1), 242-250.

Innis, H.A. (1944). A plea for the university tradition. *The Dalhousie Review, 24*, 298-305.

Jackson, J.A. (1970). Professions and professionalism—editorial introduction. In J.A. Jackson (Editor), *Professions and professionalization.* Cambridge: Cambridge University Press.

Johnson, A.M. (1990). Think like a lawyer, work like a machine: The dissonance between law school and law practice. *Southern California Law Review, 64*, 1231-1260.

Jungnickel, P.W., Kelley, K.W., Hammer, D.P., Haines, S.T., & Marlowe, K.F. (2009). Addressing competencies for the future in the professional curriculum. *American Journal of Pharmaceutical Education, 73*(8), 1-15.

Khurana, R. (2007). *From higher aims to hired hands: The social transformation of American business schools and the unfulfilled promise of management as a profession.* Princeton: Princeton University Press.

Khurana, R. & Penrice, D. (2011). Business education: The American trajectory. In M. Morsing & A. S. Rovira (Editors), *Business schools and their contribution to society.* Los Angeles: Sage.

Karabell, Z. (1998). *What's college for? The struggle to define American higher education.* New York: Basic Books.

Kerr, C. (1963/2001). *The uses of the university.* Cambridge, MA: Harvard University Press.

Langbein, J.H. (1996). Scholarly and professional objectives in legal education: American trends and English comparisons. In P.B.H. Birks (Editor), *Pressing problems in the law, Volume 2: What are law schools for?* Oxford: Oxford University Press.

Leicht, K.T. & Fennell, M.L. (2001). *Professional work: A sociological approach.* Malden, MA: Blackwell Publishers.

Lewis, H.R. (2006). *Excellence without a soul: How a great university forgot education.* New York: Perseus Books Group.

Lewis, M. (1993). J-school confidential. *The New Republic*, April 19 1993, pp. 20-27.

Lucas, C.J. (1994). *American higher education: A history.* New York: Saint Martin's Press.

Lucas, C.J. (1996). *Crisis in the academy: Rethinking higher education in America.* New York: St. Martin's Press.

Many, J.E. & Bohan, C.H. (2011). Introduction. In C.H. Bohan & J.E. Many (Editors), *Clinical teacher education: Reflections from an urban professional development school network*. Charlotte, NC: Information Age Publishing.

Many, J.E., Benson, G., Curlette, W.I., Ogletree, S., Deming, M., & Bohan, C.H. (2011). Understanding the complexities inherent in large scale implementation of the PDS model by an urban research institution. In C.H. Bohan & J.E. Many (Editors), *Clinical teacher education: Reflections from an urban professional development school network*. Charlotte, NC: Information Age Publishing.

McLaughlin, M.M. (1952/1977). *Intellectual freedom and its limitations in the University of Paris in the thirteenth and fourteenth centuries.* New York: Arno Press.

Milam, J. (2010). Reinventing teacher education: A critical exploration of mixed historical moments and promising possibilities. In V. Hill-Jackson & C.W. Lewis (Editors), *Transforming teacher education: What went wrong with teacher training and how we can fix it.* Sterling, VA: Stylus.

National Architectural Accrediting Board (NAAB). (2024). Mission. http://www.naab.org/info/mission/

National Center for Educational Statistics (1993). 120 years of American education: A statistical portrait. https://nces.ed.gov/pubs93/93442.pdf.

National Center for Educational Statistics (2023). Digest of educational statistics. https://nces.ed.gov/programs/digest/2023menu_tables.asp

National Council for Accreditation of Teacher Education (2010). Transforming teacher education through clinical practice: A national strategy to prepare effective teachers. www.highered.nysed.gov/pdf/NCATECR.pdf

National Council of Architectural Registration Boards (NCARB). (2024). NCARB's role. https://www.ncarb.org/about/ncarbs-role

Newman, J.H. (1859/1996) *The idea of a university*. New Haven: Yale University Press.

Newton, B.E. (2010). Preaching what they don't practice: Why law school faculties' preoccupations with impractical scholarship and devaluation of practical competencies obstruct reform in the legal academy. *South Carolina Law Review, 62*, 105-156.

Niblett, W.R. (1974). *University between two worlds.* New York: John Wiley & Sons.

Nwedu, C.N. (2018). Taking clinical education from classrooms to streets: A practical perspective to solving social problems. *Asian Journal of Legal Education, 5*(2), 137-151.

Parsons, T. (1939). The professions and social structure. *Social Forces, 17*(4), 457-467.

Pedersen, O. (1997). *The first universities: Studium generale and the origins of university education in Europe*. Cambridge, UK: Cambridge University Press.

Perkin, H. (2006). History of universities. *Springer International Handbooks of Education, 18*, 159-205.

Perloff, J.D. (1992). Trends in financing of undergraduate medical education. In B. Barzansky & N. Gevitz (Editors), *Beyond Flexner: Medical education in the twentieth century.* New York: Greenwood Press.

Podolny, J.M. (2009). The buck stops (and starts) at business school. *Harvard Business Review,* June 2009, 62-67.

Powicke, F.J. (1926/1970). *The Cambridge Platonists.* Westport, CN: Greenwood Press.

Pulitzer, J. (1904). The college of journalism. *North American Review, 178*, 641-680.

Readings, B. (1996). *The university in ruins.* Cambridge, MA: Harvard University Press.

Renard, G. (1918). *Guilds in the middle ages.* London: G. Bell and Sons.

Schiff, M. (1969). Ends and means in business education. In P.F. Drucker (Editor), *Preparing tomorrow's business leaders today.* Englewood Cliffs, NJ: Prentice-Hall.

Simon, H.A. (1997). *Administrative behavior: A study of decision-making processes in administrative organizations* (4th edition). New York: The Free Press.

Stewart, C. (1962). The place of higher education in a changing society. In N. Sanford (Editor), *The American college: A psychological and social interpretation of the higher learning.* New York: John Wiley & Sons.

Streib, L. (2009). Journalism bust, J-school boom. http://www.forbes.com/2009/04/06/journalism-media-jobs-business-media-jobs.html.

Stuckey, R. (2007). *Best practices for legal education: A vision and a road map.* Columbia, SC: Clinical Legal Education Association.

Thies, D. (2010). Rethinking legal education in hard times: The recession, practical legal education, and the new job market. *Journal of Legal Education, 59*(4), 598-622.

Torstendahl, R. (1993). The transformation of professional education in the nineteenth century. In S. Rothblatt & B. Wittrock (Editors), *The European and American university since 1800.* Cambridge, UK: Cambridge University Press.

Trow, M. (1970). Reflections on the transition from mass to universal higher education. *Daedalus, 99*(1), 1-42.

Trow, M. (1972). The expansion and transformation of higher education. *International Review of Education, 18*(1), 61-84.

University of Georgia College of Education (2024). Placements, student teaching, and clinical practice. https://coe.uga.edu/academics/placements-student-teaching-clinical-practice/

Wieruszowski, H. (1966). *The medieval university: Masters, students, learning.* Princeton: D Van Nostrand Company.

Wittrock, B. (1993). The modern university: The three transformations. In S. Rothblatt & B. Wittrock (Editors), *The European and American university since 1800.* Cambridge, UK: Cambridge University Press.