

# *Power, Knowledge, and the Rationalization of Teaching: A Genealogy of the Movement to Professionalize Teaching*

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*In this article, David Labaree presents a genealogy of the current movement to professionalize teaching, focusing on two key factors that define the lineage of this movement and shape its present character and direction. First, he argues that teacher professionalization is an extension of the effort by teacher educators to raise their own professional status. Second, he examines the closely related effort by this same group to develop a science of teaching. Given these roots, the reforms proposed by the Carnegie Task Force on Teaching as a Profession and The Holmes Group may well do more for teacher educators than for teachers or students. More importantly, they may promote the rationalization of classroom instruction by generating momentum toward an authoritative, research-driven, and standardized vision of teaching practice.*

The 1980s saw an explosion of critical reports about U.S. education. These reports took a wide range of approaches to the subject; they diagnosed a variety of ailments that appeared to afflict schools, and prescribed a variety of reform measures that promised to effect a cure. Some of the less complex reform proposals, which permitted easy implementation within the existing structure of schooling, were quickly put in place. For example, a large number of states and school districts raised the number of academic credits required for high school graduation. Other more radical proposals, which call for a restructuring of the educational process, have experienced more resistance. However, one of the more radical proposals has gathered institutional support and forward momentum: the movement to professionalize teaching.

In 1986, two groups published major reports converging on this solution to some of the dilemmas confronting U.S. schooling. *A Nation Prepared: Teachers for the 21st Century* was issued by the Carnegie Task Force on Teaching as a Profes-

sion, an elite assortment of public officials, executives, leading educators, and teachers' union officials under the sponsorship of the Carnegie Corporation of New York. *Tomorrow's Teachers* was issued by The Holmes Group, a consortium of the deans of colleges of education at about one hundred leading research universities.<sup>1</sup> Both of these reports argue that the quality of public education can only improve if schoolteaching is transformed into a full-fledged profession. In "the pursuit of excellence" through education, according to the Carnegie report, "the key to success lies in creating a profession equal to the task—a profession of well-educated teachers prepared to assume new powers and responsibilities to redesign schools for the future" (Carnegie Task Force on Teaching, 1986, p. 2). One key element of these reform efforts is the proposal to enhance the professional education of teachers, a step that would mean eliminating undergraduate teacher certification programs and raising professional training to the graduate level. The new form of teacher education, they argue, should include: undergraduate preparation in a particular subject matter (instead of teacher education); graduate training in what The Holmes Group calls the "science of teaching," which would ideally lead to a master's degree (the new entry-level credential for teachers); and an extended clinical internship in a "professional development school" that would be analogous to a teaching hospital. The explicit model for these reforms comes from medical education, because medicine provides the best available example of a successful effort at professionalization.<sup>2</sup>

The second major element of these reforms is the proposal to transform the structure of teaching. The reports argue for the abandonment of the present undifferentiated structure, in which teachers all occupy the same stratum, and rewards are distributed according to seniority and educational credentials. Instead, the reports propose a stratified system that would create a second tier of teachers known as "lead teachers" (Carnegie) or "career professionals" (Holmes). This new group, constituting the elite of the profession, would assume higher level duties than regular teachers and would consequently earn higher pay. These duties would include instructional consulting with teachers in the lower tier, supervision of teacher interns, curriculum development, involvement in teacher education at the university, and a continuing role in classroom teaching. In order to attain such a position, a teacher would have to demonstrate instructional excellence, pursue advanced graduate training in a college of education (perhaps including a clinical doctorate or an educational specialist degree), and attain board certification by passing an examination offered by a National Board for Professional Teaching Standards, again modeled on medical education.<sup>3</sup>

Currently, these reforms are either at an advanced stage of planning or are already at an early stage of implementation. Member institutions of The Holmes Group are committed to the creation of graduate programs in teacher education and the collaborative construction of professional development schools;<sup>4</sup> the Carnegie-supported National Board is developing standards and modes of evaluation for granting advanced professional certification.<sup>5</sup>

In this article, I argue that the teacher professionalization movement has the potential for doing more harm than good in its impact on U.S. education, and on the teachers, students, and citizens who have a stake in seeing this institution carry

out its goals effectively. My fear is that the movement will inadvertently have two effects that are not in the best interests of democratic education: augmenting the influence of the university over primary and secondary schooling by reinforcing the authority of those who teach teachers, and accelerating the rationalization of classroom instruction by reinforcing a research-based model of teaching practice. This pessimistic conclusion is based in part on the movement's appeal to the cultural ideal of professionalism, whose historical baggage weighs in on the side of expert authority and technical rationality. But in larger part, this conclusion rests on an analysis of the historical roots of this professionalization movement, which derives its character and direction from the professional interests of the research-oriented teacher educators who lead the movement and from the intellectual constructs (formal rationality and the scientific method) that guide their thinking about schools. This combination of factors produces a university-centered and research-based movement whose effect may well be to increase the rationalization of teaching and reduce the influence of teachers and citizens on schools—neither of which is a desirable outcome.

### The Meaning of Professionalization

Before examining the historical roots and political implications of the movement to professionalize teaching, I consider some questions about the professionalization process. These questions include: what it means to professionalize an occupation; why the achievement of such a goal can be difficult (especially in the case of teaching); why past efforts by occupational groups to pursue this goal have received mixed reviews; and how a professionalization movement can be analyzed.

#### *Definition*

The current effort to professionalize teaching is grounded in an analysis of how other U.S. occupational groups historically established their professional claims.<sup>6</sup> The two prongs of the teacher-professionalization effort proposed by the reports—restructuring both the professional education and the work roles of teachers—point to two key elements that are demonstrably part of any successful claim of professional status: formal knowledge and workplace autonomy. These characteristics lie at the core of what we generally mean by the term “profession.” Consider, for example, Andrew Abbott's definition: “Professions are exclusive occupational groups applying somewhat abstract knowledge to particular cases” (1988, p. 8). From this perspective, the claim to professional status rests on a simple bargain: technical competence is exchanged for technical autonomy, practical knowledge for control over practice. The upwardly mobile occupational group must establish that it has mastery of a formal body of knowledge that is not accessible to the layperson and that gives it special competence in carrying out a particular form of work. In return, the group asks for a monopoly over its area of work on the grounds that only those who are certifiably capable should be authorized to do such work and to define appropriate forms of practice in the area.

The Carnegie and Holmes reports argue that teachers must advance on both of these fronts if they hope to attain professional status. This would mean increas-

ing the level of professional knowledge held by practitioners through extending university training in subject matter and pedagogical skills and strengthening professional control of the process of teaching through a transformation of the authority structure within schools. The reports assert that both teachers and society would benefit from this professionalization effort. Teachers would win greater prestige, greater opportunity for career advancement, more varied and stimulating working conditions, and, presumably, higher pay. On its side of the professional bargain, society would gain a more competent and dedicated teaching force, which in turn would enhance student achievement and, ultimately, create a more skilled and productive work force. This comfortable scenario is supported by the arguments put forward by functionalist sociologists (for example, Parsons, 1939/1954), who portray professionalization as a natural accompaniment to modernization that benefits both practitioners and the public. However, other voices suggest that this process can be more problematic, both because the effort to achieve professional status is fraught with difficulty and because the public benefits of such an achievement are questionable.

### *Feasibility*

Early accounts, using physicians as the primary model, have portrayed professionalization as a process that follows a well-worn path toward a seemingly inevitable conclusion. However, recent writers have come to adopt a more complex vision, whose most comprehensive expression is found in Abbott's book, *The System of Professions* (1988). Abbott portrays professionalization as an open-ended struggle that must operate without the benefit of a single path to success, a secure mechanism for preserving success, or even a stable set of criteria for establishing what constitutes success. His analysis of the sociological and historical literature suggests that professionalization is always tentative: a rhetorical claim that is perennially subject to counter claims and changing fortunes as conditions in the "system of professions" change over time. The best evidence for this characterization is the way in which the apparently invulnerable position of U.S. physicians has come under heavy attack in recent years.

There are a number of reasons for thinking that the path to professionalism for teachers, in particular, is filled with craters and quicksand: the problems inherent in trying to promote professional standards in a mass occupation; the likelihood of credential devaluation as a consequence of raised educational requirements; the leveling legacy of teacher unionism; fiscal and political limits on raising teacher salaries; the historical position of teaching as a form of women's work; political resistance from parents, citizens, and politicians to the assertion of professional control over schools; teaching's late entry into an already crowded field of professionalizing occupations; the prior professionalization of school administrators and the entrenched power of the administrative bureaucracy; the long tradition of carrying out educational reform by bureaucratic means; the problem of trying to convince the public that knowledge about apparently nonesoteric school subjects is a form of exclusive professional expertise; the difficulty of constituting pedagogy as a formal system of professional knowledge; the extensive role of nonprofessionals (i.e., parents and other laypersons) in the instruction of children; the low

status of education schools and teacher educators; university reluctance to relax its monopoly over high status knowledge; and the diversity of sites in which teacher education takes place.<sup>7</sup>

Given these potential roadblocks, the archetypal case of an occupation group that has faced a situation similar to that of teachers — as Gary Sykes (1986) points out — is not the success story told by physicians, but rather the story of failure and frustration told by nurses. Yet Sykes (1990) argues that partial success would be better than nothing, and, therefore, that professionalization for teachers is worth pursuing in spite of all the factors likely to impede the process. After all, as Abbott and others suggest, professionalization is more a process than an outcome. Thus the most important issue is not whether the current effort to professionalize teachers will win them a position among the high professions, but whether it will yield any results at all. There are good reasons to believe that the pursuit of professional status for teachers will produce some observable consequences for U.S. schools, even if these consequences may not necessarily include those proposed by the professionalization movement (that is, the acknowledgment of teacher expertise as authoritative and the reorganization of schools around teacher autonomy). For one thing, this movement has institutional backing within colleges of education and the foundations; for another, it has become embedded in organizations (The Holmes Group and the National Board) that are systematically working for professionalization five years after the initial reports. Factors such as these suggest that this educational reform effort will not simply evaporate, as have less substantial reform efforts in the past, but that it will at least leave its trace on the educational and social environment.

### *Desirability*

If the teacher professionalization movement does have an impact, how will the public benefit? Characteristically, the Carnegie report makes the most sweeping positive claims for this reform proposal:

Our argument, then, is simple. If our standard of living is to be maintained, if the growth of a permanent underclass is to be averted, if democracy is to function effectively into the next century, our schools must graduate the vast majority of their students with achievement levels long thought possible for only the privileged few. The American mass education system, designed in the early part of the century for a mass-production economy, will not succeed unless it not only raises but redefines the essential standards of excellence and strives to make quality and equality of opportunity compatible with each other. (p. 21)

According to this view, the creation of a professional teaching force will enable us to pursue more effectively all of the major social goals that Americans have traditionally assigned to public schools: social efficiency (raising the standard of living via enhanced skill training), social mobility (increasing social opportunity for the underclass), and political equality (enhancing students' ability to function in a democracy).<sup>8</sup>

Functionalist sociology tends to support this rosy picture of the consequences of professionalization (Carr-Saunders & Wilson, 1933; Parsons 1939/1954), but

other approaches see a variety of negative consequences. For example, Marxists consider professionalization to be an extension of class control under the guise of expertise or an ideological cover for proletarianization (Densmore, 1987; Noble, 1977). Foucaultians see it as a symptom and agency of the rise of disciplinary power (Foucault, 1965, 1977). Weberians see it as a mechanism for legitimizing the raw self-interest of socially mobile occupational groups (Collins, 1979; Larson, 1977). Even some supporters of teacher professionalization find it fraught with potentially negative side effects, such as inequity and elitism (Sykes, 1986, 1990). As a result, there is good reason to be suspicious of any movement that calls for professionalization, on the grounds that it may benefit only the interest group leading the way, or reinforce structural tendencies toward social and political inequality, or both. Yet, however justified these suspicions might be in general, to dismiss a particular reform movement solely on the basis of its concern for professionalization would be to attribute guilt by association and to reject the possibility that this process could be harnessed to socially progressive ends.

Under these circumstances, where the meaning of professionalization remains contested and diffuse, any effort to understand the current movement to professionalize teaching must approach it as something more than an example of a general process. Instead, we need to consider the particular case at hand, as presented by the two 1986 reports, and securely locate this analysis in time and place.

### *Methodology*

I will approach the problem of determining the likely outcomes of the current teacher professionalization movement by asking why the movement emerged at this time and in this form? That is, why did it develop in the late 1980s and take on the character defined by the Carnegie and Holmes proposals? To explore teacher professionalization in this context is to attempt to establish its genealogy. Rooted in the work of Friedrich Nietzsche and elaborated in the last quarter century by Michel Foucault, genealogy is

a form of history which can account for the constitution of knowledges, discourses, domains of objects, etc., without having to make reference to a subject which is either transcendental in relation to the field of events or runs in its empty sameness throughout the course of history. (Foucault, 1980, p. 117)

That is, "it rejects the metahistorical deployment of ideal significations and indefinite teleologies. It opposes itself to the search for 'origins' " (Foucault, 1984, p. 77). Refusing to explain a historical event by means of constructs abstracted from historical context, genealogy seeks to establish the lines of descent that led to the event. The genealogist also resists the tendency to search for the "timeless and essential secret" behind things and thus uncovers "the secret that they have no essence or that their essence was fabricated in a piecemeal fashion from alien forms" (Foucault, 1984, p. 78). As one interpreter put it, in the end one must learn to treat each historical "element" as something that "is made up of components belonging to antecedent elements" (Noujain, 1987, p. 167). Doing genealogy, then, means identifying the preexisting components that constitute the historical event under consideration.

This approach to the analysis of teacher professionalization offers several important advantages.<sup>9</sup> It focuses attention on the analytical task of examining the roots of the movement rather than on the more speculative project of divining its ultimate purpose. It also frees us from the confining assumption that the movement is a result of a process of rational planning, deliberately invented as a rational mechanism for accomplishing a particular educational goal. Instead, genealogy opens up the possibility of finding a heterogeneous mixture of elements (Foucault's "alien forms") embedded within the movement, elements that may be rationally incompatible with the stated purposes of the movement. Finally, by focusing on the lineages of teacher professionalization, we can develop a useful perspective for deciding whether or not to support this movement as a whole (or whether to support one of its various tendencies over others). The relative balance of historical components that make up the movement help to establish its central thrust and thus provide us with information about the political baggage that this reform effort carries with it.<sup>10</sup>

### Roots of Teacher Professionalization

Why is it, then, that the Carnegie-Holmes version of teacher professionalization emerged as a significant movement in the late 1980s? Let's consider some of the more important antecedent elements that contributed to it.

#### *The Shift from Equity to Excellence in the Goals for Public Education*

Throughout their history, U.S. public schools have been subject to periodic waves of reform. One reason for this wave-like pattern is the contradictory purposes pursued by educational reformers. Over the years, reformers have swung back and forth between political goals (equity, equality, citizenship training) and market goals (excellence, vocational training, individual status attainment) (Labaree, 1988, 1990b). For example, while the 1960s and 1970s were marked by a push for more equity in schools, with attacks on racial segregation and class-based tracking, the early 1980s saw a shift in the direction of excellence. In one report after another, critics charged that schools were failing to provide adequate levels of academic achievement and that this would undermine worker productivity and threaten the United States' competitive position in the world economy (National Commission on Excellence in Education, 1983; Task Force on Education for Economic Growth, 1983; Twentieth Century Fund, 1983).

Teacher professionalization emerged as one reaction to the problems posed in these critiques. The Carnegie report stresses the need to raise standards for teachers and the importance of the link between effective instruction and social efficiency—goals that are directly descended from the emphasis on excellence that shaped educational discourse in the early 1980s. But, in addition, the professionalization movement emerged as part of a second wave of reform (Passow, 1989) that sought to restore the balance between equity and excellence that was lost in reports that came out earlier in the decade. Thus the Carnegie report argues that restructured schools should seek "to make quality and equality of opportunity compatible with each other" (Carnegie Task Force on Teaching, 1986, p. 21), and the second

Holmes Group report (1990) devotes considerable space to concerns about equity in detailing its vision of “tomorrow’s schools.”

*Disenchantment with Bureaucratic Reform Efforts*

Educational reform over the years has been “steady work”; one reason for this is that it has not been successful in solving the most important educational problems:

Reforms that deal with the fundamental stuff of education—teaching and learning—seem to have weak, transitory, and ephemeral effects; while those that expand, solidify, and entrench school bureaucracy seem to have strong, enduring, and concrete effects. (Elmore & McLaughlin, 1988, p. v)

For the past 150 years, educational reform efforts have tended to originate at the top of the system (in the state house and the superintendent’s office) and then work their way down through the hierarchy, usually petering out by the time they get to the classroom door. As a result, the primary effect of these reforms has been to increase the size and complexity of the educational bureaucracy, but this bureaucratic approach has been remarkably ineffective in shaping the instructional process (Lortie, 1969, 1975; Tyack, 1974). The chronic failure of bureaucratic reform to deal effectively with educational problems has not led to its abandonment. In fact, the calls for reform that emerged in the early 1980s generally responded to past bureaucratic failures by intensifying bureaucratic administration through such mechanisms as raising graduation requirements and introducing state- and district-wide testing programs.

At the same time, however, a rising number of educators and educational researchers have been proposing a mechanism for reform that is intended to be more effective and less hierarchical than the traditional bureaucratic approach. These voices have argued for restructuring schools in a way that reduces centralized administrative control and increases the role of individual schools, smaller organizational units within schools, communities, and teachers (Carnegie Task Force on the Education of Young Adolescents, 1989; Elmore et al., 1990; Sizer, 1985). The teacher professionalization movement is one natural outgrowth of these decentralization efforts, since it seeks to increase the autonomy of teachers and institutionalize their impact on classroom instruction. Both of the reports that initiated this movement express the view that bureaucracy must recede if professionalization is going to become a reality. For example, one of the five main goals of The Holmes Group is “to make schools better places for teachers to work, and to learn.” The report adds, “This will require less bureaucracy, more professional autonomy, and more leadership for teachers” (Holmes Group, 1986, p. 4).

*The Reagan-Era Shift from State to Market Solutions*

The Reagan presidency brought a significant shift in the discourse on social engineering, as state remedies for social problems lost ground to market-based remedies. This increased preference for the market over the state helped reinforce the parallel preference for decentralization over bureaucracy. The administration’s ideology saw bureaucratic government’s intervention in social life as ineffective, inefficient, and even counterproductive, and saw the private sector (capitalism and “volunteerism”) as being able to handle many of these areas better than the



state. This was the decade when state-run schools came under attack for being both bureaucratic and monopolistic, and when a market-based alternative model for school governance made serious headway. Under the latter “choice” model, schools would have to compete with each other for the patronage of parents, who would have the freedom to choose where they would enroll their children (Chubb & Moe, 1990).

The teacher professionalization movement has explicitly chosen to pursue a market-based strategy of implementation. The Carnegie report, for example, makes it clear with reference to board certification that:

The certification process is envisioned by the Task Force as completely voluntary. There would be no requirement imposed on new teachers or teachers currently in the workforce to participate. But the Task Force expects that many teachers will wish to do so, because the certificate will be an unambiguous statement that its holder is a highly qualified teacher. Certificate holders can expect to be eagerly sought by states and districts that pride themselves on the quality of their schools. (1986, p. 67)

In a paper commissioned by the task force, Shulman and Sykes (1986) argue strongly for adopting this market strategy over a political strategy. The advantage of the market approach, from their perspective, is that it provides an incentive for individual teachers to strive for excellence in the practice of their profession, whereas the political approach (for example, state-mandated certification requirements) can only establish minimum criteria for entry into practice. In the best tradition of Reagan-era initiatives, then, board certification of teachers promises to promote higher standards for public education by means of individual initiative and unfettered competition.

The Holmes Group’s proposals for reforming teacher education also point to a market approach. Instead of lobbying for an increase in the state mandate for pre-service teacher training, the group is establishing model programs for graduate professional education at the country’s most prestigious colleges of education. The idea is that once these colleges set a higher standard for teacher education, school districts will seek the graduates from these programs because of their superior qualifications, and students will compete to get into these programs. Consequently, the less prestigious teacher-training institutions (which prepare the majority of the new teachers every year) will eventually feel compelled by market pressure to adopt the new standard.

### *The Rise of Feminism*

The 1970s and 1980s also saw the rise of feminism and a growing, if still limited, acceptance of feminist views by the public at large. Polls began to show that traditional conceptions of gendered work were increasingly being called into question—particularly the notion that women should naturally seek jobs that call for them to nurture children and serve men. Teaching has long been the prototypical form of such women’s work. Not only are most of its practitioners female, but it puts women in a situation that mimics both the nurturing role of a mother (in relation to students) and the subordinate role of a wife (in relation to male administrators) (Feiman-Nemser & Floden, 1986; Lortie, 1973; Patrick, Griswold, & Rober-

son, 1985; Strober & Tyack, 1980; Weiler, 1988). Not only has teaching been ideologically congruent with notions of female domesticity, but, given the traditionally restricted options for women in the workforce, it has also been one of the most socially and financially rewarding jobs accessible to educated women (Sedlak, 1989; Sedlak & Schlossman, 1986).

However, in the increasingly feminist environment of the 1980s, teaching began to look less attractive to women seeking a professional career. A declining proportion of female college graduates were eager to pursue such a stereotypically female occupation. And as prestigious and traditionally male professions such as medicine, law, and business began to open up to women, fewer women were forced to fall back on teaching as the most attractive alternative (Carnegie Task Force on Teaching, 1986, pp. 26–31; The Holmes Group, 1986, pp. 331–336).

The teacher professionalization movement, therefore, can be understood in part as a natural outgrowth of these changing social and ideological patterns in U.S. gender relations. Professionalization offers the teacher a way to escape identification with the unpaid and uncredentialed status of mother. The new professional teacher—especially a board-certified “lead” or “career professional” teacher—would be well paid and formally credentialed, with an education and a status within hailing distance of the high professions. In addition, the movement offers female teachers an opportunity to get out from under the thumb of male administrators (thereby shrugging off the long-standing association with the status of wife) by asserting their right to autonomy in the classroom and to a significant influence in the operation of the school. These professionalized teachers would be empowered, independent, and well rewarded—skillful decisionmakers who could apply the special knowledge base of their profession to the particular learning requirements of their students.

This analysis suggests that the Carnegie-Holmes vision of teacher professionalization grew out of what Kathleen Weiler (1988) identifies as the liberal version of feminism, which dominated feminist discourse in the 1980s. Stressing the need to liberate women from the constraints of gender-differentiated socialization and selection, liberal feminists argue that women should be encouraged to escape from traditionally female forms of work in order to compete with men in traditionally male occupations. From this perspective, female teachers should not be content with their current situation, but should remain in the classroom only if teaching adopts the model set by the male professions.

Radical feminists reject this strategy. They argue that the differences between men and women should not be “resolved” by having women play out male roles in the traditional male manner (Greene, 1988; Grumet, 1988; Kristeva, 1988). From this alternative perspective, the teacher professionalization movement runs the risk of abandoning the distinctive and desirable characteristics of the female teacher (nurturing, emotionally supportive, person-centered, and context-focused) in order to take on the frequently undesirable characteristics of the dominant male professional (competitive, rationalistic, task-centered, and abstracted from context). The Holmes and Carnegie reports make virtually no reference to the former traits in their description of teaching as a profession; instead, they argue that this profession should be grounded in a scientific knowledge base, arranged competitively into a meritocratic hierarchy, and focused on the task of in-

creasing subject-matter learning. Apparently thinking of teaching's femaleness as unprofessional, the professionalizers seem to be trying to reshape the female schoolteacher in the image of the male physician.<sup>11</sup>

*The Lowly Status of Teachers in a Professionalizing Environment*

At one level, the teacher professionalization movement is an extension of the broader movement that seeks to raise the status of women workers by eradicating the category of "women's work." At another level, it arises out of the narrower effort to raise the status of teachers. There is nothing new about this effort. In the mid-nineteenth century, during the early days of the U.S. common school system, teachers occupied a pitifully low position in the social hierarchy. This was the era when "teachers were paid in pumpkins and firewood" (The Holmes Group, 1986, p. 8) and, if they were lucky, a small amount of cash; when job security was nonexistent because school boards handed out positions as a form of political patronage and as a dole for widows (Sedlak, 1989); when girls taught for a few years between the end of school and the start of marriage, and men taught only until they could find a real job; and when the rapid growth of school enrollment put a premium on finding anyone at low cost to act as a "schoolkeeper," leaving the question of instructional competence as a secondary issue (Elsbree, 1939).

After these unpromising beginnings, teaching had nowhere to go but up. By the turn of the century, bureaucratizing school systems were beginning to increase teacher pay and job security and raise educational requirements for job entry (Elsbree, 1939). The upward trend continued for fifty years or more, signaled by the elevation of teacher-training requirements from a couple of years of a high-school level normal school to a four-year college degree and by the increasing number of teachers who were making a career in the classroom. However, at mid-century, the rise in teacher status peaked and started to slide downward. One supporter of teacher professionalization explains the problem this way:

In recent years, the college-educated segment of the population has increased in our society, with two consequences. Teachers are no longer among the best educated members of many communities. The minimal status they once enjoyed is slowly eroding. And, for many college graduates today, teaching represents downward, not upward, mobility. (Sykes, 1990, p. 70)

From this angle, teacher status was the victim of creeping inflation in educational credentials. As more people acquired college degrees, teachers lost their educational distinctiveness and slid back into the pack.<sup>12</sup> This relative slippage in social position received reinforcement from another long-term trend in status competition. Entire occupation groups were trying to attain what Magali Larson (1977) calls "collective social mobility" by advancing claims for professional status, which they supported by raising standards for professional education, instituting entry-level testing and peer certification, establishing national organizations, and asserting commitment to the public interest. Under these circumstances, teachers found themselves—individually and collectively—dropping toward the bottom of the white-collar hierarchy. Perhaps the last straw came in the 1980s, when registered nurses moved toward adoption of the bachelor's degree as their new entry-level educational requirement (replacing the old requirement of a nursing school

certificate or an associate's degree). Teaching and nursing had long been the main competitors for the loyalty of young women seeking semiprofessional careers, and now teaching was about to lose its educational advantage. A natural way to respond to this threat was for teachers to pursue professionalization themselves.

*The Rise of the Science of Teaching*

The literature on professions suggests that teacher professionalization cannot take place until there is a well-developed body of knowledge on teaching that is able to guide teaching practice. As The Holmes Group report states, "The established professions have, over time, developed a body of specialized knowledge, codified and transmitted through professional education and clinical practice. Their claim to professional status rests on this" (p. 63). The report argues that this situation is already close at hand for teaching: "Scholarship and empirical research on education has matured, providing a solid base for an intellectually vital program of professional studies" (p. 50). The report continues:

Until the last two decades, scholarship in education and the content of the hundreds of university courses in the subject had to rely heavily upon the findings in other disciplines, particularly the behavioral sciences. . . . Within the last twenty years, however, the science of education promised by Dewey, Thorndike, and others at the turn of the century, has become more tangible: The behavioral sciences have been turned on the schools themselves, and not just in laboratory simulations. Studies of life in classrooms now make possible some convincing and counter-intuitive conclusions about schooling and pupil achievement. Ironically, now that the promise of science of education is about to be fulfilled, many current reform recommendations recall an older literature that demands a decrease in the time given to the study of this scholarship. (pp. 51-52)

Arguing against initiatives in states such as Texas and New Jersey that have sought to limit or sidestep formal instruction in the science of teaching, the Holmes report proposes to extend this area of study. After all, its authors assert, now that we have accumulated such a substantial amount of research evidence about teaching, we can for the first time provide prospective teachers with solid training in a form of knowledge about teaching practice that is specialized (no longer dependent on the disciplines), authoritative (scientific), and inaccessible to the layperson ("counter-intuitive")—the crucial prerequisites for any occupational group claiming to be a profession.

*The Professionalization of Teacher Educators*<sup>13</sup>

At the heart of The Holmes Group report is a harsh critique of the current state of teacher education as well as teaching:

Unhappily, teaching and teacher education have a long history of mutual impairment. Teacher education long has been intellectually weak; this further eroded the prestige of an already poorly esteemed profession, and it encouraged many inadequately prepared people to enter teaching. But teaching long has been an underpaid and overworked occupation, making it difficult for universities to recruit good students to teacher education or to take it as seriously as they have taken education for more prestigious professions. (p. 6)

As a result of this analysis, the teacher professionalization movement has chosen to move toward reform on both fronts at the same time, seeking to transform both the structure of teaching and the process of teacher education.

The critique of teacher education implies that a key obstacle to professionalization is the weakness of the teacher educators themselves. Judith Lanier, president of The Holmes Group and member of the Carnegie Task Force on Teaching as a Profession, is the lead author of a devastating portrait of the faculty who carry out teacher education (Lanier & Little, 1986). This review appeared as a chapter in the third edition of *The Handbook of Research on Teaching*, which came out the same year as the Carnegie and Holmes reports. Lanier and Little argue that teacher educators have generally received less rigorous training than other academics, since "the doctorate in education can often be completed more quickly than the doctorate in other fields" (p. 531) and since such training is often carried out while the student is holding down a full-time job. In addition, they note that teacher educators show "an extremely low record of scholarly accomplishment" (p. 531). One study (Guba & Clark, 1978) showed that "less than 20 per cent of the 1,367 education units in higher education had faculty involved in education research and development" (p. 531). In short, teacher educators generally do not meet the primary professional standard that exists for other college professors—namely, research productivity.

It is not surprising, therefore, that the Holmes report calls for upgrading the teacher-education faculty to bring them in line with the norms of the academic profession as a whole. At the back of the report are a set of proposed "Holmes Group Standards," one of which asserts: "The academic faculty responsible for teacher education contribute regularly to better knowledge and understanding of teaching and schooling" (p. 91, emphasis in the original has been removed). The report goes on to explain this goal as a necessary component of the larger goal of teacher professionalization: "The scholarly productivity of the academic faculty in teacher education contributes to the codification of effective practice and to better understanding of aspects of education that have promise for improving teaching and learning in schools" (p. 91).

In effect, the report argues that one cannot professionalize teachers without first professionalizing teacher educators. Why? Because it is unreasonable to think that teachers can be successfully elevated to the status of high professionals by an unprofessional group of education school faculty. And it is equally unreasonable to expect that teachers can become professionals without a specialized, authoritative, and counterintuitive professional knowledge base. The professionalization of teacher educators helps solve both problems. It raises the status of the status-raisers, and it does so by promoting a science of teaching, which both affirms the academic professionalism of teacher educators and legitimizes the professional authority of teachers.

The Holmes Group, therefore, portrays the effort to professionalize teaching as an exercise in rational planning. The professionalization of teacher education is seen as a means to the movement's greater ends, a first-stage goal that colleges of education can accomplish on their own. However, a different interpretation seems more credible: the professionalization of teacher education is more than a compo-

ment in the strategy for teacher professionalization. Rather, it is a process that was already in motion long before the two reports emerged in 1986 and that served as a crucially necessary precondition for these reports. In short, in a significant way, the teacher professionalization movement of the 1980s is descended from the prior movement to professionalize teacher educators and from the scientific knowledge base that was developed during the latter process.

*Tomorrow's Teachers* provides evidence for this interpretation. It shows that at least some teacher educators were generating a sizable amount of respectable research on schools and teaching during the two decades prior to the publication of the report. This finding suggests strongly that these teacher educators were already establishing an increasingly effective claim of professional status for their field within the academic community. And these professionalizing teacher educators were and are located almost exclusively within the very institutions—colleges of education at research-oriented universities—that constitute the membership, and especially the leadership, of The Holmes Group.

This genealogy of the teacher professionalization movement that emerged in the 1980s shows that the movement traces its lineage back to a wide range of preexisting social events and ideological orientations. Before considering the likely outcomes of teacher professionalization, I would like to examine the last two roots of this movement more closely. These two elements are particularly important for a sound understanding of how the movement came about and why it took the form that it did. First, teachers cannot establish an effective claim to professional power without a credible base of professional knowledge; and, second, a socially powerful mechanism is required for carrying out professional education in this knowledge. These two components, in turn, are thoroughly interconnected. Teacher educators cannot professionalize unless they produce a solid body of research on teaching, and there cannot be a science of teaching unless there is an authoritative (i.e., university-based) interest group with an incentive to generate it. Thus we need to examine more closely the joint emergence of the science of teaching and the professionalization of teacher educators—that is, the rise of professional knowledge and power in colleges of education. The most useful way to carry out such an examination is to push the analysis back one step and explore the lineage of these two events.

### The Rise of Teacher Educators

Why did the professionalization of teacher educators and the rise of the science of teaching develop interactively during the two decades prior to the Holmes and Carnegie reports, and why did this joint development take the form that it did? By analyzing some of the key elements that contributed to this process, we will be able to explore the ways in which these elements are embedded in the particular proposals made in the reports.

#### *The Weak Position of Teacher Educators within the University*

The first U.S. institutions devoted specifically to teacher education were the state normal schools, which developed in Massachusetts in the 1830s under the sponsorship of Horace Mann, and then spread around the country.<sup>14</sup> Originally designed

as secondary schools for the training of elementary teachers, neither their status nor their function remained stable for very long. They began to move up the ladder of institutional mobility, propelled by a combination of individual and professional ambition. For many educational consumers, these normal schools increasingly served as places to acquire a high school education and a chance to achieve a position that was not necessarily limited to teaching. The rapid proliferation of high schools at the end of the nineteenth century posed a competitive threat to normal schools, but also gave normal school faculties the opportunity to raise admission standards and pursue college status. By the 1920s, normal schools were being converted wholesale into state teachers colleges, which in turn transformed the faculty members into college professors. Once again, students tended to treat these institutions as mechanisms for acquiring the educational credentials needed to get ahead as much as for acquiring a teaching certificate. After the Second World War, state teachers colleges continued to adapt to this demand and to the professional aspirations of their faculties by rapidly converting themselves into full-service state colleges and finally, in the 1970s and 1980s, into state universities (Labaree, 1990b).

These historical developments have brought enormous benefits to most teacher educators. Riding on the backs of their upwardly mobile institutions, they have experienced an elevation over the past one hundred years from the status of high school teacher to that of university professor. In this sense, the professionalization of teacher educators has been going on for a long time. However, this rapid rise in status has caused problems, especially in the past twenty years, as a growing proportion of these teacher educators found themselves in a university environment. In this new setting, teacher education is no longer the centerpiece, but is forced to compete with a wide range of other occupational and liberal arts programs with greater prestige. Not only that, but teacher educators increasingly have been held accountable according to university norms of professional conduct rather than the norms that originated in the normal school. Thus, they have been under growing pressure to carry out research and publish in academic journals, activities for which, as Lanier and Little (1986) point out, they have little training or interest.

As a result of these recent developments, most teacher educators have come to occupy the formal status of a university professor, but with a very weak substantive claim to professional standing in the university community. In this competitive arena, the only route for making such a claim was through research productivity.<sup>15</sup> Pressure to do so was particularly strong for teacher educators at the older and more prestigious universities, in which the research norm was most firmly established (and from which The Holmes Group eventually emerged). Fortunately, a model of how to assert a claim to professional status successfully in an educational setting was close at hand. Since the turn of the century, educational psychology has been one area within education schools that has been able to establish itself as a credible producer of academic knowledge and, thus, its faculty as legitimate members of the university professoriate. Consequently, it is not surprising that the push for professionalization of teacher educators began with applying the methods of educational psychology to the problems of teaching.

*The Weak Position of Teacher Educators within Colleges of Education*

The comparison with educational psychology points up another problem facing teacher educators in the two decades preceding the publication of the Holmes and Carnegie reports. They have occupied a weak position not only within universities, but also within colleges of education. Following the scientific approach to the study of learning pioneered by Edward L. Thorndike at the turn of the century, educational psychologists took hold of the academic high ground in education schools from the very beginning and held on to this position throughout the twentieth century. While these researchers were carrying out experiments, publishing results, and developing theories of child development and student learning, the teacher educators were left with the less prestigious task of training teachers.

While the educational psychology faculty dominated colleges of education academically, the educational administration faculty dominated them organizationally. In part, this situation was a legacy of the social efficiency movement of the early decades of this century, which stressed scientific administration as the answer to the problems in U.S. schools, and of the long-term tendency for educational reformers to view bureaucracy as the primary mechanism for carrying out any form of school improvement (Callaghan, 1962; Tyack & Hansot, 1982). But it also arose because school administrators were able to achieve professionalization long before either teachers or teacher educators. As Arthur Powell (1976) has shown, universities began establishing their own schools of education at the turn of the century, several decades before normal schools became teachers colleges and more than half a century before they evolved into universities. The initial force behind the development of these university education schools came from male high school teachers, who saw university training as a way to protect themselves from the rising feminization and falling prestige of their calling. When this effort to preserve the exclusivity of high school teaching failed, the schools quickly adapted themselves to preparing these same male high school teachers for positions as educational administrators.

As a result, the earliest colleges of education that developed in the most prestigious universities were focused primarily on the professional preparation of school administrators and other educators working outside the classroom. This early history of administrative professionalization put the field of educational administration in a strong position within education schools more generally, especially when combined with the male dominance of the field and the functional centrality of administrative reform. Therefore, control of education schools traditionally has rested in the hands of the faculty from the administration department. This left teacher educators in a subordinate status that parallels the position of their graduates within schools, where nonprofessional teachers have had to answer to professional administrators.

From this perspective, one of the most significant things about The Holmes Group is that it consists of a group of deans from colleges of education who are arguing for the centrality of teacher education within their own schools. This strongly suggests that the traditional power relations within these colleges have been changing in recent years.<sup>16</sup> Another clue along these lines comes from the school-restructuring proposals that, like the teacher-education proposals, have



emerged from the teacher professionalization movement. Given the way in which the relative status of fields within colleges of education parallels the status of their respective groups within schools, the central thrust of these proposals—elevating the role of teachers while diminishing that of administrators—again suggests a move toward collegial ascendancy by teacher educators.

*The Weak Impact of Teacher Educators on Teaching Practice*

The movement to professionalize teacher educators—and, by extension, teachers—can therefore be understood in part as an effort by these faculty members to respond to the relative weakness of teacher education within the university and within colleges of education. But it can also be seen as a way to remedy the surprising inability of the faculty in this field to put their stamp on the classroom practice of their own graduates. Larry Cuban's study, *How Teachers Taught* (1984), examines evidence about the pedagogical practice of U.S. elementary and secondary school teachers during the twentieth century and finds that it was remarkably impervious to the kind of pedagogy urged upon them as part of their teacher education. While the dominant ideology of teacher education during most of this period has been to promote child-centered pedagogy in classrooms, these teachers (especially at the secondary level) persisted to a remarkable degree in conducting their classes in the traditional teacher-centered manner.

The problem seems to be that teacher educators feel they know more about how to teach than they knew a few years ago, but teachers seem to be unwilling or unable to put this knowledge into practice. As I have noted, the rise of a research base for knowledge about teaching is one of the fundamental axioms of the movement for teacher professionalization. And if one needs empirical verification of the existence of this base, one need only leaf through the three editions of the *Handbook of Research on Teaching* (Gage, 1963; Travers, 1973; Wittrock, 1986), which require a total of 3,481 pages of text just to summarize this literature. *Tomorrow's Teachers* argues that “competent professional teachers” should be familiar with the key insights in this literature and be able to use them in class. It notes, however, that such is not the case in today's schools:

Such professionals are deeply concerned by mounting evidence that many of this country's teachers act as educational functionaries, faithfully but mindlessly following prescriptions about what and how to teach. Conducting classes in routine, undemanding ways, far too many teachers give out directions, busywork, and fact-fact-fact lectures in ways that keep students intellectually passive, if not actually deepening their disregard for learning and schooling. (pp. 29–30)

This evidence shows that teacher education is not exerting a very substantial impact on the way teachers teach. In his classic sociological study of teachers, Dan Lortie (1975) captures this in the title of his chapter on teacher training, “The Limits of Socialization.” As he and a number of other writers on the subject argue (Lanier & Little, 1986; Cohen, 1988), teachers learn more about teaching from the thousands of hours they have spent as students in K–12 classrooms than they do from their relatively brief time under the tutelage of teacher educators. And what they do learn from teacher educators often has little connection to the grow-

ing body of scientific knowledge about teaching, since the bulk of the instruction of preservice teachers is done not at research-oriented colleges of education, but at institutions where the teacher-education faculty have little incentive to produce or even keep up with educational research (Cohen, 1987). Thus, pedagogical tradition carries more weight than research-based evidence on effective teaching techniques. This tendency is reinforced by the sudden immersion of students in the classroom during the brief experience of student teaching and their abrupt separation from professional mentoring after graduation. The school is the reality to which new teachers must adapt, and the learning they acquire about teaching in colleges of education is easily shrugged off once they close the classroom door (Britzman, 1986).

The movement for teacher professionalization advocates a number of measures designed to increase the impact of teacher education on teaching practice. It proposes to do this indirectly by strengthening the influence of formal educational knowledge (generated or codified by teacher educators) on the way teachers think about teaching, and directly, by increasing the influence of teacher educators over the educational process in schools. As spelled out in the Holmes and Carnegie reports, the movement will try to accomplish these goals in the following ways: by redesigning the content of teacher education around the developing scientific knowledge base about professional practice; by extending the length of teacher education and introducing an extended and intensively supervised clinical internship (steps that would deepen the degree of professional socialization experienced by the student); by creating professional development schools in which teacher educators would continue in an advisory role concerning school structure and classroom practice; and by establishing new intermediary positions for teachers, in which, after undergoing advanced training in an education school, they could serve as both lead teachers in their schools and clinical faculty at the university.

### Formal Rationality and the Science of Teaching

In this article, I have argued that the teacher professionalization movement can, in part, be traced back to the professionalization of teacher educators and the rise of a science of teaching, and that the latter developments can, in part, be traced to the occupational concerns of teacher educators who have been seeking a remedy for their low status and weak influence within universities, colleges of education, and schools. At this point I would like to step back and examine the broader intellectual context that helped to shape these developments.

The changes in colleges of education during the past several decades bear the distinctive stamp of a pattern of thought that first emerged at the start of the modern era and that is best characterized as formal rationalism. Stephen Toulmin (1990) argues that this modernist approach arose during the seventeenth century, through the efforts of natural philosophers such as Descartes and Newton, and has dominated our way of thinking about the world ever since.<sup>17</sup> He argues that this rationalist worldview has several essential characteristics: it emphasizes formal logic over rhetoric and proof over argumentation; it focuses on the development of abstract principles rather than the study of diverse, concrete individual cases;

and it concentrates on constructing timeless theories grounded in the permanent structures of life rather than exploring the shifting and context-bound problems of daily practice (Toulmin, 1990, pp. 30–35). For better or worse, formal rationality has shaped modern life. It constitutes the core of what we think of as the scientific method, and in this form it has exerted a profound effect on technological development, economic growth, and the vast expansion of our knowledge about the world. It also defines the modern principle for the organization of social life—what Max Weber (1968) called “rationalization”—by which relations among human beings are structured according to the same formal logic and timeless abstractions that we see as the basis for planetary motion.

My argument is that, starting in the 1960s, teacher educators began to adopt this formal, rationalist worldview and to apply it to the task of constructing a science of teaching. First, they naturally turned toward an intellectual approach that over the centuries had proven effective for understanding social life and guiding social practice, and that had accumulated an enormous reservoir of cultural legitimacy. Given the weak position from which teacher educators were starting, they needed to draw on the most powerful form of intellectual technology that was available, which led them naturally to the edifice of law-seeking science. In addition, as university professors they were already under increasing pressure to develop a research agenda in accordance with academic professional norms, and the most prestigious form of academic research traditionally has been structured around the canons of the scientific method. And finally, educational psychology had already established a model for carrying out academically credible and scientific research in education.

The pursuit of a scientific basis for classroom instruction probably began in 1906 with Thorndike’s *Principles of Teaching* and continued during the 1920s and 1930s with a series of pedestrian quantitative studies that sought to connect teacher attributes with student achievement.<sup>18</sup> Even Dewey took up the issue in his 1929 lectures on *The Sources of a Science of Education*, but unlike Thorndike and company, he argued that this science should play a supportive rather than an authoritative role for teachers, giving them “intellectual tools” rather than “rules for overt action” (p. 30). At one point he asserts, “No conclusion of scientific research can be converted into an immediate rule of educational art” (p. 19). It was not until the 1960s that a systematic and sustained effort to apply formal rationality to the study of teaching finally developed. This movement was kicked off officially in 1963, when the American Educational Research Association (AERA) published the first *Handbook of Research on Teaching* (Gage, 1963). In his preface, editor N. L. Gage noted that, “In the half-century since research on teaching began, thousands of studies have been made,” and that one purpose of the handbook was to summarize this work; however, he argued that another purpose of the book was to criticize the existing work for being insufficiently scientific:

In recent decades, such research has lost touch with the behavioral sciences. It has not drawn enough nourishment from theoretical and methodological developments in psychology, sociology, and anthropology. . . . To remedy this condition—to bring research on teaching into more fruitful contact with the behavioral sciences—is a purpose of this Handbook. (Gage, 1963, preface)

In the 1960s, Gage and other educational psychologists succeeded in establishing such contact by applying their field's well-developed experimental methodology and quantitative analytical techniques to the study of teaching. The resulting body of research measured what happened to student achievement as a result of variations in the pedagogical behavior of teachers. The burgeoning teaching effects (or "process-product") literature provided an ideal expression of the modernist perspective, since it allowed researchers to develop formal principles for effective teaching that could serve as a prescriptive guide for both public policy and classroom practice. Out of this work emerged a scientifically grounded and law-like field of research that gave teacher educators the opportunity to establish professional credibility within the university community and gave teachers a growing body of formal knowledge from which to base a future claim for professional status.

Since those early days, the field of research on teaching has grown enormously. A second *Handbook* (Travers, 1973) appeared only ten years after the first. Teaching and teacher education research expanded rapidly within AERA until it grew into a whole division in 1985.<sup>19</sup> A series of federally funded centers helped to lead the charge, the most prominent of which was the Institute for Research on Teaching (IRT) at Michigan State University. In this account, 1986 emerges as perhaps the peak moment in the joint elevation of teacher educators and their science of teaching. That year saw publication of the Holmes and Carnegie reports and the third *Handbook of Research on Teaching*, and also saw funding of the National Center for Research on Teacher Education at Michigan State University.

In recent years, several leading scholars have argued that the research on teaching has developed well beyond its recent roots in process-product research. While vigorously defending this tradition of research, Gage (1989; Gage & Needels, 1989) suggests that the field is now legitimately open to alternative approaches, even some that are quite different from his own scientific and law-seeking perspective—because, in fact, teaching is both a science and an art (Gage, 1978; Gage & Berliner, 1989). Lee Shulman (1986), in his review of research paradigms for the third *Handbook of Research on Teaching*, takes a more critical stance toward the process-product opus, but comes to a similarly heterodox conclusion. Yes, he argues, the model of measuring the effects of teacher behavior did constitute the dominant paradigm in the field for a significant period, but then research began to branch out into the study of the cognition of teachers and students. More recently, methodological trends have emerged that seem to signal a more radical divergence from this paradigm. One trend is the rise of various forms of interpretive research (often lumped together under the label "ethnography") that involve the qualitative analysis of classroom interaction based on observation and interview. Another is the emergence of the case study, which represents a shift in emphasis from a positivist concern about generalizability to a focus on texture and context. A third trend is the effort to examine the ways in which teachers understand and guide their own practice, as an example of reflexive and contextualized knowledge that is practical rather than theoretical. As a result, the field appears to have outgrown its early stress on law-seeking, abstraction from context, and prescriptions for practice, and has, in short, moved away from the model of Cartesian formal rationality.

However, the original scientific paradigm drawn from educational psychology still seems solidly entrenched.<sup>20</sup> The vision of methodological diversity presented by Gage and Shulman is a bit misleading. Gage continues to see scientifically grounded knowledge on teaching as the core of the field, as illustrated by the title of his book, *The Scientific Basis of the Art of Teaching* (1978). And the shift from behavioral measures to cognitive measures, which Shulman portrays as a change in paradigms, simply represents an expanded number of variables employed within what is still a psychologistic and formal rationalist model. Although alternative approaches to this model have emerged, they are currently operating only at the margins of the central structure of research on teaching. While Shulman gamely tries to bring these approaches into the center of his review of research paradigms, he is forced to concede that “this [interpretive] perspective is somewhat alien to the majority of researchers on teaching who have, like the author, been raised as psychologists (or at least with the unquestioned assumptions of positivist and reductionist social science)” (1986, p. 21).

The central problem here is one that Foucault would appreciate, since it revolves around the complex connections between power and knowledge for the research-oriented teacher educators who have led the movement to professionalize teachers. The quotation from Shulman is revealing about one such connection. It supports my contention that these educators and the scientific model of teaching arose together in a symbiotic fashion that has made it difficult for the educators simply to shrug off the latter model as an outmoded paradigm. This model was enormously empowering for these researchers. It helped make them successful, prominent, and influential within colleges of education, the university, and the schools; it was the paradigm around which they established their competence, shaped their careers, and developed their basic understanding of teaching and learning. In such a situation, a paradigm shift, if it occurs, is likely to be instigated by a new generation of researchers who lack the personal and professional investment in the old intellectual structure (Kuhn, 1970).

There are some signs that such a new generation may be emerging in the field. Postpositivist philosophers have been waging war on the scientific paradigm in the pages of *Educational Researcher* for the past decade, and they seem to be winning.<sup>21</sup> As suggested earlier, education schools and journals are showing signs of opening up to interpretive and contextualized accounts of teaching. However, this trend runs up against a second power-knowledge problem—the power of the scientific research on teaching to authorize and legitimize efforts by teacher educators to change classroom behavior. While Shulman expresses doubts about the “appropriateness” of “natural science models” in educational research (1986, p. 29), he argues that we still need to fall back on these models when we have to make decisions about teaching practice: “It is . . . apparent why the results of positivist research are more typically employed to guide policy while those of interpretive researchers most frequently are employed to criticize and question, to vex with precision” (p. 31). The context-bound and particularistic accounts of instruction that emerge from postmodern research simply do not provide an authoritative, foundational, and technical justification for policy interventions in the same way as those scientific accounts that philosophers love to deconstruct. This conflict poses an intellectual and professional dilemma for teacher educators. While

empirically and theoretically the science of teaching is increasingly difficult to defend, to abandon it in favor of the postmodern approach is to give up the very thing that gives their words a privileged status within educational discourse. If they are not speaking authoritatively from the platform of positive science, then why should their ideas on education be accorded any greater weight than those of laypersons such as teachers, parents, and citizens?

The desire to improve teaching and schooling therefore leads teacher educators to draw on and express the “disciplinary power” (Foucault, 1977) of the science of teaching, even as their rhetoric begins to turn away from process-product research and its overtly prescriptive approach to pedagogy. The second Holmes Group report (1990) abandons the emphasis on scientific knowledge that characterized the first report in favor of a rhetoric of equality and collaboration as the basis for the proposed professional development schools (Labaree, forthcoming). However, what makes this a credible reform effort by a group of education school deans is the discursive authority it derives from the scientific research that these schools produce. What I am arguing, therefore, is that the influential role of formal rationality within the movement to professionalize teachers derives in part from the recent occupational experience of teacher educators, who have relied on this intellectual structure for their own professional advancement, and in part from their continuing need to hold onto an epistemologically privileged position from which to launch efforts at educational reform.

### Implications: Rationalizing the Classroom

Based on this genealogy of the movement for teacher professionalization, we can consider some of the effects that the movement might have on the major actors in the educational arena. The effort to enhance the workplace autonomy, professional education, and social status of teachers could, in the abstract, serve a wide variety of possible goals. However, the preceding analysis suggests that this particular effort—given the time, place, and agents that define the circumstances of its emergence—has embedded within it a distinctive mix of preexisting elements. These elements give this effort a character and momentum that significantly narrow the range of probable outcomes and make some effects more likely than others. Since these elements do not present a picture of a coherent and rationally planned effort, the movement contains the potential for moving in several different and even contradictory directions. From one perspective—the stress on raising academic standards and on using market incentives as a mechanism for reform—the roots of teacher professionalization portray it as an extension of the neoconservative ideology of the Reagan era. From a second perspective—the concerns for promoting equity, attacking bureaucratic control, supporting liberal feminism, and raising the status of teachers—its roots portray the movement as part of an effort to promote the interests of teachers and students as oppressed groups within the educational system. From a third perspective—the rise of a science of teaching and the professionalization of teacher educators—these roots depict the movement as an outgrowth of a process of scientific rationalization and collective status mobility.

The first tendency is an expression of the ideological context during the movement's formation, showing that it was constructed in part out of the most potent cultural materials available in the 1980s. This conservatism has left its mark on the form of the movement through the structure of the National Board for Teacher Certification (which encourages teachers to take board exams because of individual careerist incentives rather than because of a political mandate) and through the emphasis on academic excellence for teachers (which promotes increased levels of academic rigor, credentialing, and performance screening). The second tendency has given the movement its sense of mission, which promises to carry the movement in a more progressive direction than the first tendency. The 1990 Holmes Group report in particular resonates with concern about promoting greater social opportunity and personal empowerment for students and teachers alike. A number of teacher educators have chosen to support the teacher professionalization effort because they see it as a movement through which they can help education advance toward such goals. They may be right: These concerns are embedded within the movement and are prominently championed by many of its supporters. But I see several problems that may channel the movement in a different direction. One arises from the movement's orientation toward market influences and excellence; this tendency enhances social inequality and educational hierarchy and thereby undermines efforts to achieve progressive ends. Another problem arises from the choice of professionalism as a mechanism for pursuing these ends because of the professions' long-standing identification with the politics of expert rule and with male-oriented work roles. Yet another difficulty arises from the tendency toward rationalization of the classroom that is driven by the professional concerns and orientations of university faculty.

In short, given the contradictory elements built into it, the teacher professionalization movement is contested terrain, and its outcomes are still very much up for grabs. This article has emphasized one particular lineage—with its roots in the professional mobility of teacher educators and the science of teaching—and its potentially harmful effects on the way in which the movement approaches educational reform. Such emphasis focuses attention on the two elements likely to exert the most fundamental constraints on the shape and direction of the movement: the social position of the leading actors in this movement and the worldview that shapes their actions.<sup>22</sup> The teacher professionalization movement has been molded by the particular structure of power and knowledge that developed during the course of events that brought it to life. Teacher educators and the science of teaching arose together in the two decades preceding 1986 under conditions that bonded one to the other. It was a marriage between an upwardly mobile occupational group and an authoritative intellectual construct. As a result, teacher educators at research universities have tended to look at schools through the lens of scientific rationality and to propose solutions for school problems that draw on their own technical skills. This approach tends to work to their benefit not because they are manipulative, but because they are caught in a genealogical web of power and knowledge that limits the way they customarily think and act about schooling. The scientific logic of their own professionalization effort leads them to envision a rationalized structure of reform for teachers and students that plays out familiar

themes of professionalism and technical skill. This type of structure has a number of implications for U.S. education.

*Enhancing the Professional Position of Teacher Educators*

One outcome of the movement for teacher professionalization already seems to be in the works, and that is the elevation of teacher educators within colleges of education. By moving the issue of teacher education closer to the center of the national debate about schools, the movement has helped to raise the status of the faculty in these programs. This process has been measurably helped by the ongoing efforts of The Holmes Group, in which deans at the most prestigious colleges of education are asserting the focal importance of teacher education within their own colleges. The days when teacher educators had to bow to the organizational leadership of the administration faculty and to the professional stature of the educational psychology faculty appear, at least for the moment, to be fading into memory.<sup>23</sup> Likewise, the status of teacher educators within the university community appears to be rising in conjunction with their research productivity.

However, this description of collective mobility needs to be qualified in two ways. First, the picture of success is clearest for the teacher education faculty at elite universities, which is where the research on teaching and the leadership of the teacher professionalization movement have originated. There is likely to be less benefit for teacher educators at the second-tier state universities (former teachers colleges) and less still for those in four-year institutions, where teaching loads are heavy and research productivity is low or nonexistent. The movement may, in fact, serve to emphasize the gap in status between the upper and lower levels of teacher education if many institutions in the latter category do not adopt a graduate-level program of teacher certification.

Second, even for teacher educators at research-oriented universities, the timing of the movement poses a problem. Teacher educators have come to the professionalization process rather late in the game, when the field is glutted and many predecessors have staked out the prime positions. Within the university, humanities has a strong hold on high culture, natural science has a claim to technology and the scientific method, and social science has a lead in the application of research to problems of social policy. Education is left to play catch-up, with borrowed equipment and a rookie's track record. In addition, teacher educators are coming late to the adoption of the scientific-rationalist model of research, which is now under attack and in partial retreat in the waning years of the twentieth century (Toulmin, 1990). Philosophy has abandoned this model, architecture and literary criticism have developed strong challenges to it, and it now occupies a reduced position within social science. Even physics, which has long been the model for modernist formalism, has turned away from its Newtonian roots and recognized the diversity of the universe and the difficulty of reducing it to timeless formulas. Therefore, teacher educators may well be hitching their hopes to a research structure that is in the process of molting, which poses the possibility that they could be left behind clutching an empty shell.

*Enhancing the Influence of Teacher Educators within Schools*

As discussed earlier, teacher professionalization promises to increase the impact of teacher educators on schools. By emphasizing the importance of a formal



knowledge base for the teaching profession, the movement reinforces the position of teacher educators relative to teachers, since it is the job of the former to produce, codify, and transmit this knowledge. Further reinforcement comes from the requirement that prospective teachers undergo an augmented period of professional education and clinical internship, both of which will be administered by the education school faculty. This process is likely to lead future teachers to a closer identification with the teaching profession and, presumably, to a greater respect for the teacher educators who play such a prominent role in this profession. A particularly strong professional identification is likely in the case of lead or career-professional teachers, whose advanced professional education and close ties to the university should make them significant voices for the college of education within the schools. In addition, the emergence of professional development schools will provide the teacher educator with a direct role in the school, that may be similar in influence to that of the attending physician in a teaching hospital.

*Increasing the Rationalization of Classroom Instruction*

The literature on educational organization shows that bureaucratic control has strongly shaped the administration of schools, but has never been very successful at managing instruction (Lortie, 1969; Meyer & Rowan, 1978). Behind the classroom door, teachers have been able to carry out the business of teaching and learning with a surprising degree of autonomy. While many reform efforts in the 1980s sought to promote bureaucratic control over instruction (through testing, rigid curriculum guidelines, and so forth), the teacher professionalization movement opposes such measures, both in its antibureaucratic rhetoric and in its programmatic emphasis on enhancing teacher autonomy. However, while opposing bureaucratization, the movement promises to enhance the *rationalization* of classroom instruction. The difference is that bureaucratization focuses on organization in the narrow sense of the word, locating power in a hierarchy of offices and thus effecting outcomes by command from supervisor to subordinate; whereas rationalization focuses on organization in the broader sense—as process—embedding power in the principles of formal rationality that shape the discourse and procedures by which people guide their actions. Historically, rationalization has promoted the growth of bureaucracy by providing the latter's ideological and procedural prerequisites; but, as an extension of the modernist worldview, rationalization has exerted an influence far beyond the limits of organization charts.

The teacher professionalization movement promotes a vision of scientifically generated professional knowledge that draws heavily on the movement's roots in formal rationality. It portrays teaching as having an objective empirical basis and a rational structure. It argues that a professional teacher should have substantial mastery of the empirical literature on teaching methods and should be able to demonstrate the ability to conduct a rationally structured class that reflects the insights of this literature. To the extent that this effort is successful, the result would be to enhance the rationalization of classroom instruction. Teaching would become more standardized—that is, more technically proficient according to scientifically established criteria for accepted professional practice. In this sense, then, professionalization could achieve a degree of procedural control over classroom instruction that bureaucratic managers have long sought but chronically failed to attain. Instead of deriving from administrative edict or state law, this control would

arise in part from a more extended and effective system of professional socialization (imbuing prospective teachers with the principles of acceptable professional practice) and in part from the market forces set in motion by new career ladders and the system of board certification (providing existing teachers with career incentives to adapt their practice to the professional standard).

*Reinforcing the Vision of Teaching as a Technical Activity*

It follows from the preceding analysis that the current proposal for professionalizing teaching will tend to focus attention on the technical aspects of this activity. After all, if there is one characteristic a professionalizing occupation seeks to attach to its members in the eyes of the public, it is technical competence. This cuts to the essence of the exchange that a profession offers to the rest of society — a guarantee of collective competence in return for workplace autonomy. Therefore, above all else, the reports assure us that the professional teacher will be a competent teacher: in one three-page stretch, *Tomorrow's Teachers* uses the words “competent” or “competence” thirteen times (pp. 28–31). And the way the profession seeks to establish its competence is through a complex array of mechanisms for testing and certifying its membership, which the reports promise to carry out with a vengeance. One critic notes that words such as “examination,” “standards,” and “certification” appear fifty-seven times in the first section (pp. 3–20) of the Holmes report (Cherryholmes, 1987, p. 504).

The professionalizers promote this technical view of teaching in part to offset an older view of teaching as a philanthropic activity, in which “caring about kids” is seen as a sufficient justification for allowing someone to take on the task of classroom instruction. From the professionalizing perspective, portraying teachers as people who have to be able to “do” science as well as to “do” good elevates the discussion about teaching above a simple consideration of naive intentions and focuses attention on the need to have teachers who can deliver desirable educational outcomes. However, as a number of critics from the Left have argued, this technical vision tends to divert attention from the view that teaching is also a *political* activity that training programs should take into account (Beyer & Zeichner, 1987; Giroux & McLaren, 1987). From this perspective, the problem with promoting the rationalization of teaching is that it tends to hide the political content of instruction under the mask of a technical decision about the most effective means to promote unexamined educational ends. Yet a good teacher should in fact examine these ends with a critical eye and should be open with students about the fundamentally political way in which these ends are chosen in and for schools. One potential danger of professionalization, therefore, is the way in which it pushes technical questions into the foreground and political questions into the background as either unscientific or unproblematic.

*Increasing the Political Distance between Teachers and Parents*

One last political implication of the professionalization movement is the danger that, by emphasizing the specialized expertise of teachers, it will undermine democratic control of schools. Sykes (1990) confronts this issue and, drawing on the work of Amy Gutmann (1987), argues that professional autonomy for teachers will actually enhance democratic politics by creating a buffer against the domination

of education by the whim of the majority. The problem with this argument, however, is that the source of teachers' professional authority is a technical rationality that denies that education is a legitimate matter for political debate. The roots of the professionalization movement suggest that education will be considered a technical matter that must be left in the hands of certified experts, and that efforts by the laity to set the direction or shape the content of education will not be seen as an appropriate democratic action, but as an unacceptable form of interference.

The frequent use of medical analogies becomes particularly problematic at this stage of the discussion. The implication is that laypersons should have no more say about how a teacher conducts a class than about how a surgeon conducts an operation; both cases are seen as technical matters of professional competence that are best dealt with by peer review. But it is not clear that shaping minds, instilling values, and preparing citizens are the same sorts of technical problems as removing an appendix or reducing a fever. The former tasks have an irreducibly political character to them—since they involve the teacher in making choices about which ideas, values, and social ends are worth promoting, and since they exert an impact on the way students will make their own choices about these things. Every parent—and, more broadly, every citizen—is constantly making these kinds of decisions and exerting these sorts of influences on their own children and on the adults around them. Therefore, this political component of teaching is not a closely held form of professional expertise, but a capacity that is universally accessible to the lay public, and this makes the construction of professional barriers to public influence over classroom instruction nothing less than a threat to an essential component of democracy.

## Notes

1. The group is named after Henry W. Holmes, dean of the Harvard Graduate School of Education during the 1920s, who argued that “the training of teachers is a highly significant part of the making of the nation” (The Holmes Group, 1986, p. 24).
2. The present pattern of medical education emerged early in the twentieth century, propelled in part by the famous Flexner report (1910), which, like *A Nation Prepared* and *Tomorrow's Teachers*, was supported by Carnegie funding (Labaree, 1990a).
3. The Carnegie and Holmes efforts have been closely coordinated from the beginning. The only education school dean on the Carnegie panel, Judith Lanier from Michigan State University, was also the organizer and later president of The Holmes Group. As these reform efforts gathered momentum, they reached out from their original bases (educational policymakers and teacher educators, respectively) and increasingly began to draw from the same network of national-level leaders in education, teacher education, government, business, labor, and foundations.
4. For information on the ongoing efforts of The Holmes Group institutions, see the *Holmes Group Forum*, a journal produced by the national organization and issued quarterly since the fall of 1986. For a discussion of the plans for professional development schools, see the group's second report, *Tomorrow's Schools*, issued in 1990.
5. For a set of policies and plans for the board's effort to establish a system of national certification for teachers, see its 1989 report, *Toward High and Rigorous Standards for the Teaching Profession*.

6. Two scholars in particular, Gary Sykes and Lee Shulman, have written about these patterns as part of an effort to establish the historical basis for the Carnegie and Holmes Group proposals (Shulman, 1986; Shulman & Sykes, 1986; Sykes, 1986, 1987, 1990).
7. For a more extended discussion of many of these points see: Dan Lortie (1975), David Cohen (1988), Eliot Freidson (1986, pp. 223–225), Gary Sykes (1986, 1990), The Holmes Group (1986), and the Carnegie Task Force on Teaching (1986).
8. See Labaree (1990b) for a further discussion of these three broad goals and their role in the development of U.S. education.
9. Several readers of an earlier draft of this article commented that genealogy sounds like a new term for a form of analysis that the best critical historians have been carrying out for years, a kind of history that allows full rein to contingency, particularism, contradiction, nonlinearity, and nonrationality. While I agree that history can and sometimes does display these characteristics, I have chosen to retain the label genealogy for what I am doing here because it highlights the way in which my account stresses these characteristics and thus diverges from the traditional heroic histories of educational reform movements.
10. Elie Noujain points out that one of the advantages of this approach is that with it, “value judgments [can] be directly embedded in the genealogic narrative” (1987, p. 172). That is, “genealogy makes it possible to show that what might be today passed off as acceptable and good might, equally by today’s standards, turn out to possess an objectionable ‘ancestry’ ” (p. 169).
11. See Susan Laird (1988) for a useful look at alternative ways of thinking about the femaleness of teaching.
12. See Randall Collins (1979) for a full-length discussion of the growing problem of credential inflation in the competition for social status.
13. For the purposes of this article, I am defining teacher educators quite narrowly — that is, as the faculty members in colleges of education who teach teacher candidates. This excludes from consideration the rest of the undergraduate university faculty, who also share in the education of teachers by providing instruction in general education and in subject-matter majors. Only about a quarter of an elementary teacher’s education occurs at the hands of the education school faculty; for high school teachers the proportion is even smaller. However, I am choosing to focus on the education school faculty because it is they, and not the liberal arts faculty, who are pushing for the professionalization of teaching, and it is they who have the greatest stake in the outcome of this effort.
14. This brief review of the history of teacher education draws primarily on two sources — a concise account in Christopher Jencks and David Riesman (1968, pp. 231–236) and a book-length history by Jurgen Herbst (1989).
15. It should be noted that a small number of teachers continue to receive preparation at four-year colleges, where the faculty are more inclined to see themselves as educators rather than teacher educators and to eschew university status and the research orientation that accompanies it.
16. In this regard, it would be interesting to study the backgrounds of deans at colleges of education over time, to see if there has been a shift from administration to teacher education.
17. I draw on Stephen Toulmin here because he provides the most recent, sweeping, and accessible critique of formal rationality in modern thought. For other critiques, see Richard Rorty (1979, 1989), Cleo Cherryholmes (1988), and Michel Foucault (1977, 1980, 1984).

18. I am grateful to Stephen Raudenbush and David Cohen for pointing out to me some of the earlier efforts at establishing a science of teaching.
19. This helped spur a phenomenal growth within AERA generally. At its annual meeting in 1965, only eighty sessions were offered; in 1990 there were one thousand. In 1965, the organization had six divisions and no special-interest groups; in 1990, it had eleven divisions and ninety-eight special-interest groups (AERA, 1990, p. 9).
20. See Cherryholmes, *Power and Criticism: Poststructural Investigations in Education* (1988), for a convincing analysis and critique of the scientific paradigm in educational research. His arguments have exerted a strong impact on my view of the field.
21. I refer to this paradigm as "scientistic" rather than scientific because of the way it reifies science into a method for establishing abstract and timeless truth. By contrast, a practitioner of mere science is content to make claims that are more limited and tentative.
22. I am grateful to Stephen Raudenbush for pointing out how to define the analytical significance of these two factors.
23. In theory, one would expect this outcome to follow as a result of the Holmes effort to bring teacher education onto center stage within colleges of education. In practice, the ascent of teacher educators is currently happening in my own college and, I suspect, in a number of others as well.

## References

- Abbott, A. (1988). *The system of professions*. Chicago: University of Chicago Press.
- American Educational Research Association. (1990). *Annual meeting program*. Washington, DC: Author.
- Beyer, L. E., & Zeichner, K. (1987). Teacher education in cultural context: Beyond reproduction. In T. Popkewitz (Ed.), *Critical studies in teacher education* (pp. 298-334). Philadelphia: Falmer Press.
- Britzman, D. P. (1986). Cultural myths in the making of a teacher. *Harvard Educational Review*, 56, 442-456.
- Callaghan, R. E. (1962). *Education and the cult of efficiency*. Chicago: University of Chicago Press.
- Carnegie Task Force on the Education of Young Adolescents. (1989). *Turning points*. Washington, DC: Carnegie Council on Adolescent Development.
- Carnegie Task Force on Teaching as a Profession. (1986). *A nation prepared: Teachers for the 21st century*. Washington, DC: Carnegie Forum on Education and the Economy.
- Carr-Saunders, A. P., & Wilson, P. A. (1933). *The professions*. Oxford, Eng.: Oxford University Press.
- Cherryholmes, C. H. (1987). The political project of *Tomorrow's Teachers*. *Social Education*, 51(7), 501-505.
- Cherryholmes, C. H. (1988). *Power and criticism: Poststructural investigations in education*. New York: Teachers College.
- Chubb, J. E., & Moe, T. M. (1990). *Politics, markets, and America's schools*. Washington, DC: Brookings Institution.
- Cohen, D. K. (1987). Educational technology, policy, and practice. *Educational Evaluation and Policy Analysis*, 9, 153-170.
- Cohen, D. K. (1988). *Teaching practice: Plus ça change . . .* (Issue Paper No. 88-3). East Lansing, MI: National Center for Research on Teacher Education.
- Collins, R. (1979). *The credential society*. New York: Academic.
- Cuban, L. (1984). *How teachers taught*. New York: Longman.
- Densmore, K. (1987). Professionalism, proletarianization and teacher work. In T. Popkewitz (Ed.), *Critical studies in teacher education* (pp. 130-160). Philadelphia: Falmer Press.

- Dewey, J. (1929). *The sources of a science of education*. New York: Liveright.
- Elmore, R. F., & McLaughlin, M. W. (1988). *Steady work*. Santa Monica, CA: Rand.
- Elmore, R. F., and Associates (1990). *Restructuring schools: The next generation of educational reform*. San Francisco: Jossey-Bass.
- Elsbree, W. (1939). *The American teacher*. New York: American Book.
- Feiman-Nemser, S., & Floden, R. E. (1986). The culture of teaching. In M. Wittrock, *Handbook of research on teaching* (3rd ed., pp. 505-526). New York: Macmillan.
- Flexner, A. (1910/1960). *Medical education in the United States and Canada* (Bulletin No. 4). New York: Carnegie Foundation for the Advancement of Teaching.
- Foucault, M. (1965). *Madness and civilization*. New York: Vintage.
- Foucault, M. (1977). *Discipline and punish*. New York: Pantheon.
- Foucault, M. (1980). *The Foucault reader* (P. Rabinow, Ed.). New York: Pantheon.
- Foucault, M. (1984). *Power/knowledge* (C. Gordon, Ed.). New York: Pantheon.
- Freidson, E. (1986). *Professional powers*. Chicago: University of Chicago Press.
- Gage, N. L. (Ed.). (1963). *Handbook of research on teaching*. Chicago: Rand McNally.
- Gage, N. L. (1978). *The scientific basis of the art of teaching*. New York: Teachers College Press.
- Gage, N. L. (1989). The paradigm wars and their aftermath. *Educational Researcher*, 18(7), 4-10.
- Gage, N. L., & Berliner, D. C. (1989). Nurturing the critical, practical, and artistic thinking of teachers. *Phi Delta Kappan*, 71(3), 212-214.
- Gage, N. L., & Needels, M. C. (1989). Process-product research on teaching: A review of the criticisms. *Elementary School Journal*, 89, 253-300.
- Giroux, H., & McLaren, P. (1987). Teacher education as a counter public sphere: Notes towards a redefinition. In T. Popkewitz (Ed.), *Critical studies in teacher education* (pp. 266-297). Philadelphia: Falmer Press.
- Greene, M. (1988). *The dialectic of freedom*. New York: Teachers College Press.
- Grumet, M. R. (1988). *Bitter milk*. Amherst: University of Massachusetts Press.
- Guba, E. G., & Clark, D. L. (1978). Levels of R & D productivity in schools of education. *Educational Researcher*, 7(5), 3-9.
- Gutmann, A. (1987). *Democratic education*. Princeton, NJ: Princeton University.
- Herbst, J. (1989). *And sadly teach: Teacher education and professionalization in American culture*. Madison: University of Wisconsin Press.
- The Holmes Group. (1986). *Tomorrow's teachers*. East Lansing, MI: Author.
- The Holmes Group. (1990). *Tomorrow's schools*. East Lansing, MI: Author.
- Jencks, C., & Riesman, D. (1968). *The academic revolution*. Chicago: University of Chicago Press.
- Kristeva, J. (1988). *The Kristeva reader* (T. Moi, Ed.). New York: Columbia University Press.
- Kuhn, T. S. (1970). *The structure of scientific revolutions* (2nd ed.). Chicago: University of Chicago Press.
- Labaree, D. F. (1988). *The making of an American high school: The credentials market and the Central High School of Philadelphia, 1838-1939*. New Haven, CT: Yale University Press.
- Labaree, D. F. (1990a). A kinder and gentler report: *Turning Points* and the Carnegie tradition. *Journal of Education Policy*, 5, 249-264.
- Labaree, D. F. (1990b). From comprehensive high school to community college: Politics, markets, and the evolution of educational opportunity. In R. Corwin (Ed.), *Research in sociology of education and socialization* (Vol. 9, pp. 203-240). Greenwich, CT: JAI Press.
- Labaree, D. F. (forthcoming). Doing good, doing science: The Holmes Group reports and the rhetorics of educational reform. *Teachers College Record*, 93.
- Laird, S. (1988). Reforming "women's true profession": A case for "feminist pedagogy" in teacher education? *Harvard Educational Review*, 58, 449-463.

- Lanier, J. E., & Little, J. W. (1986). Research on teacher education. In M. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 527-569). New York: Macmillan.
- Larson, M. S. (1977). *The rise of professionalism*. Berkeley: University of California Press.
- Lortie, D. C. (1969). The balance of control and autonomy in elementary school teaching. In A. Etzioni (Ed.), *The semi-professions and their organization* (pp. 1-53). New York: Free Press.
- Lortie, D. C. (1973). Observations on teaching as work. In R. M. W. Travers (Ed.), *Handbook of research on teaching* (2nd ed., pp. 474-497). Chicago: Rand McNally.
- Lortie, D. C. (1975). *Schoolteacher*. Chicago: University of Chicago Press.
- Meyer, J., & Rowan, B. (1978). The structure of educational organizations. In M. W. Meyer, and Associates (Eds.), *Environment and organizations* (pp. 78-109). San Francisco: Jossey-Bass.
- National Board for Professional Teaching Standards (1989). *Toward high and rigorous standards for the teaching profession: Initial policies and perspectives of the National Board for Professional Teaching Standards*. Detroit: Author.
- National Commission on Excellence in Education. (1983). *A nation at risk*. Washington, DC: U.S. Government Printing Office.
- Noble, D. F. (1977). *America by design*. New York: Knopf.
- Noujain, E. G. (1987). History as genealogy: An exploration of Foucault's approach to history. In A. Griffiths (Ed.), *Contemporary French philosophy* (pp. 157-174). New York: Cambridge University Press.
- Parsons, T. (1939/1954). The professions and the social structure. In *Essays in sociological theory* (rev. ed., pp. 34-49). New York: Free Press.
- Passow, H. (1989). Present and future directions in school reform. In T. J. Sergiovanni & J. H. Moore (Eds.), *Schooling for tomorrow: Directing reforms to issues that count* (pp. 13-39). Boston: Allyn & Bacon.
- Patrick, A., Griswold, R. L., & Roberson, C. A. V. (1985). Domestic ideology and the teaching profession. *Issues in Education*, 3(2), 139-157.
- Powell, A. G. (1976). University schools of education in the twentieth century. *Peabody Journal of Education*, 54, 3-20.
- Rorty, R. (1979). *Philosophy and the mirror of nature*. Princeton, NJ: Princeton University Press.
- Rorty, R. (1989). *Contingency, irony, and solidarity*. New York: Cambridge University Press.
- Sedlak, M. W. (1989). Let us go and buy a schoolmaster. In D. Warren (Ed.), *American teachers: Histories of a profession at work* (pp. 257-290). New York: Macmillan.
- Sedlak, M. S., & Schlossman, S. (1986). *Who will teach?* Santa Monica, CA: Rand.
- Shulman, L. S. (1986). Paradigms and research programs in the study of teaching: A contemporary perspective. In M. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 3-36). New York: Macmillan.
- Shulman, L. S., & Sykes, G. (1986). *A national board for teaching? In search of a bold standard*. Unpublished paper prepared for the Carnegie Task Force on Teaching as a Profession.
- Sizer, T. R. (1985). *Horace's compromise*. Boston: Houghton Mifflin.
- Strober, M. H., & Tyack, D. B. (1980). Why do women teach and men manage? *Signs*, 3, 494-503.
- Sykes, G. (1986). *The social consequences of standard-setting in the professions*. Unpublished paper prepared for the Carnegie Task Force on Teaching as a Profession.
- Sykes, G. (1987). Reckoning with the spectre. *Educational Researcher*, 16(6), 19.
- Sykes, G. (1990). Fostering teacher professionalism in schools. In R. Elmore, and Associates, *Restructuring schools: The next generation of educational reform* (pp. 59-96). San Francisco: Jossey-Bass.
- Task Force on Education for Economic Growth. (1983). *Action for excellence*. Denver, CO: Education Commission for the States.

- Thorndike, E. L. (1906). *Principles of teaching, based on psychology*. New York: Seiler.
- Toulmin, S. (1990). *Cosmopolis: The hidden agenda of modernity*. New York: Free Press.
- Travers, R. M. W. (Ed.). (1973). *Handbook of research on teaching* (2nd ed.). Chicago: Rand McNally.
- Twentieth Century Fund. (1983). *Report of the Twentieth Century Fund task force on federal elementary and secondary education policy*. New York: Author.
- Tyack, D. (1974). *The one best system*. Cambridge, MA: Harvard University Press.
- Tyack, D., & Hansot, E. (1982). *Managers of virtue*. New York: Basic Books.
- Weber, M. (1968). *Economy and society* (G. Roth & C. Wittich, Eds.). Berkeley: University of California Press.
- Weiler, K. (1988). *Women teaching for change*. South Hadley, MA: Bergin & Garvey.
- Wittrock, M. (Ed.). (1986). *Handbook of research on teaching* (3rd ed., pp. 3-36). New York: Macmillan.



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