# Education, Science, and the Politics of Knowledge: The American Educational Research Association, 1915–1940

SHERIE MERSHON and STEVEN SCHLOSSMAN
*Carnegie Mellon University*

In the early twentieth century, a new alliance formed between university-based scholars who dedicated themselves to the scientific study of education and public school officials. This alliance centered on the proposition that applied research could advance the professionalization of schooling and become a prestigious academic specialty in its own right. The American Educational Research Association (AERA) emerged to further these dual goals. This essay analyzes changes in the ideological and organizational dynamics of the AERA between 1915 and World War II. By 1940, the AERA's founding faith in a unifying professional identity had been undercut in two ways: first, by a weakening of the Progressive Era paradigm of a socially relevant science of education, and second, by an intensification of divisions among the constituencies that the AERA aspired to serve. Relying heavily on archival data, we track the multiple sources from which this gradual distancing of research from the politics of education occurred.

During the first half of the twentieth century, an alliance formed and then gradually weakened between university-based scholars who embraced the scientific study of education and administrators who managed the growing public school systems of the United States. This alliance centered on the proposition that applied research on educational methods could simultaneously advance the professionalization of American public schooling and constitute a prestigious new academic specialty. Among the institutions that emerged to further these goals was an organization that, after several permutations of name and policy, became the American Educational Research Association (AERA).

The development of the AERA during its early years (1915–40) provides insight into what the historian Ellen Condliffe Lagemann (1989) has called "the politics of knowledge." In twentieth-century America, knowledge—particularly specialized, technical knowledge—became a crucial and contested

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resource. Decisions about who should produce knowledge, how its creation and dissemination were organized, and how knowledge was perceived and used had widening social repercussions. The AERA frequently encountered such questions, and its experience illuminates not only the history of educational research but also the broader issues of professionalism, social science, and the "Progressive" tradition in American politics.[1]

In Section I, we connect the origins of American educational research to the rise of the Progressive political movement between 1890 and 1915. Academic scholars and public school officials found common cause in their shared belief that empirical social science could provide both legitimacy and guidance for a complex—and controversial—project of expanding and rationalizing local school systems in order to make public education a vital instrument of social reform. We set the inception of the AERA in this political context, tracing it to a small group of public school research specialists who coalesced during the 1910s to form the National Directors of Educational Research. As this organization became the Educational Research Association of America in 1922 and the AERA in 1928, it continued to focus on using scientific analysis to improve public school teaching and administration.

In Section II, we chart the emergence of multiple conflicts that, over time, eroded unity among educational researchers and demonstrated that the link between research and educational practice was far more problematic than was initially understood. Boundaries between academic disciplines, along with sharpening institutional contrasts between research bureaus located in public schools versus those located in universities, divided producers of educational research and undercut the AERA's claim to represent a unified professional field. During the 1920s and 1930s, weaknesses in the dominant Progressive paradigm became increasingly evident; advocates of educational research learned that appeals to scientific authority seldom settled debates over public policy conclusively or demonstrated the relevance of new scientific knowledge

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SHERIE MERSHON (PhD, Carnegie Mellon University, 1999) is an independent scholar who is currently working on projects concerning American educational history, urban economic development, and military personnel policy. She is coauthor with Steven Schlossman of *Foxholes and Color Lines: Desegregating the U.S. Armed Forces* (Johns Hopkins University Press, 1998). STEVEN SCHLOSSMAN (PhD, Columbia University, 1976) is professor of history at Carnegie Mellon University. His areas of specialization are the history of education, juvenile justice, childhood and the family, and military personnel policy. He is the author of *Transforming Juvenile Justice* (Northern Illinois University Press, 2005) and coauthor, with Brian Gill, of several articles on the history of homework.

to concrete educational practice. Although increasingly sophisticated, the concepts and techniques that educational researchers employed often failed to provide usable answers to complex questions about human intelligence, instruction, and school organization. Chastened by experience, the AERA became more reluctant by the late 1930s to portray educational research as a tool of Progressive politics and a means of transforming schooling and society.

## I. Progressive Education and the Origins of Educational Research

### *A. Progressivism and the Call for a Science of Education, 1890–1915*

The wellsprings of American educational research lay in the country's rapid industrialization and urbanization during the late nineteenth and early twentieth centuries. To Americans in positions of power and influence, these dramatic social changes posed urgent political challenges. Traditional institutions and sources of moral authority no longer seemed adequate to provide effective order and governance (Boyer 1978; Cremin 1988; Ross 1991; Wiebe 1967). Wealth and opportunity were expanding, but there was no guarantee that these favorable trends would continue automatically. Urban slums, class conflict, and other troubling realities revealed that material progress could coexist with threatening new forms of social instability.

In politics, the Progressive movement viewed the situation optimistically, voicing confidence that social change could be mastered and directed toward beneficial ends. Progressives—a heterogeneous category that included religious groups, middle-class professionals, businesspeople, trade unionists, and scholars—did not fundamentally reject industrial capitalism, but they called for deliberate action to mitigate its inefficiencies and injustices. Emphasizing the cooperative aspects of modern life, they argued that nonmarket institutions should regulate and supplement the competitive, market-driven activities of individuals and private firms (Keller 1990; Rodgers 1998; Sealander 1988). They advocated the use of rational planning to create more harmonious social relations.

This political outlook assigned great strategic importance to education and, specifically, to public schools. Progressive thinkers envisioned an ambitious expansion of the roles that public education played in American life. Schools, they insisted, should take the lead in enabling citizens to understand and shape an industrialized, urbanized nation. As two pioneering educational researchers put it, education should be viewed "as a war waged by society to gain control over its own evolution," in which "the discovery and exact description of the instincts, capacities, and tendencies of children, the invention of more efficient

methods of instruction, the use of more certain methods of direction, and the achievement of better forms of organization of human energy" (Courtis and Packer 1920, 5) were crucial.

However, public schools at the turn of the twentieth century were ill suited to bear such immense responsibilities. Schools functioned primarily to transfer traditional skills and fixed bodies of cognitive knowledge from generation to generation. Particularly outside large cities, they were decentralized, underfunded, and limited in scope. Few students continued beyond the elementary grades, and many poor and minority children received little formal schooling at all (Ravitch 2000; Tyack 1974).

In reaction against the constraints of existing instructional methods, institutional forms, and resource scarcity, an array of alternative ideas and practices emerged under the heading of "Progressive education" (Cremin 1961; Zilversmit 1993, 1–11). The basic proposition of Progressive education was that schooling should prepare students for the ever-changing conditions of modern society. Public schools, in this view, should impart a wide array of knowledge, skills, and attitudes, not only in conventional subjects such as reading but also in modern science and in nonacademic fields such as health and industrial arts. They should tailor instruction to the varied characteristics of students, taking individual and group differences into account. Many, although not all, advocates of Progressive education favored pedagogical approaches—articulated most compellingly by the philosopher John Dewey—that rejected rote learning in favor of experiential, "child-centered" methods that built upon the natural curiosity and individual interests of children.

Scant guidance was available for implementing these ideas. Little systematic inquiry into teaching, learning, or school administration had ever been undertaken in the United States (Clifford and Guthrie 1988). The study of education had a marginal status in colleges and universities; its prestige was diminished by its concern with practical problems instead of theory and by its association with school teaching, which was regarded as low-status women's work (Clifford and Guthrie 1988; Lagemann 2000). Lacking a body of expert knowledge with which to justify and direct the reform of public schooling, diverse scholars and educators set out to create a science of education.

Establishing a scientific basis for educational practice mattered because science—or, to be precise, certain popular conceptions of it—occupied an exalted place in American culture (Novick 1988; Reuben 1996). Science was commonly understood in positivistic, inductive, instrumental terms that stressed fact gathering and the generation of useful knowledge. Its findings ostensibly constituted objective truths, not personal interpretations, and therein lay their power. "For generations schools have been conducted on opinion," explained one early educational researcher, but the rise of scientific analysis meant that "the present tendency in the educational world is to substitute fact

for opinion" (Melcher 1916, 1073) and thus create a more rational foundation for public education.

Psychology contributed heavily to the initial substantive core of American scientific research on education. One important area of investigation was child development, the investigation of relationships among physical growth, mental growth, and behavior. This subfield received much impetus from G. Stanley Hall of Clark University, who theorized that mental capabilities were rooted in biological evolution (Lagemann 2000; Minton 1988; Schlossman 1976). Other scholars, such as Edward L. Thorndike, at Teachers College, Columbia University, and Charles H. Judd, at the University of Chicago, developed an experimentally based behaviorist perspective that sought to identify general principles of learning and teaching (Joncich 1968; Lagemann 2000).

Related work in psychometrics—the measurement of mental abilities—yielded standardized tests that assigned quantitative values to human capabilities. Building upon European precedents, American scholars devised ways to measure motor reflexes, perception, and problem solving. They concluded that human intelligence could be summarized by an "intelligence quotient" (IQ), which permitted analysis of individual and group differences in mental aptitude. In 1916, Lewis Terman established the Stanford-Binet scale, the first widely distributed IQ test (Minton 1988). Psychometricians also created tests to evaluate achievement in skills such as spelling and arithmetic (Monroe 1917, 1918).

Academic psychologists thus created the rudiments of a body of knowledge that promised to advance the Progressive goal of modernizing education. However, the impulse to delineate educational research as a distinct profession did not come solely—or even primarily—from psychology or any other academic discipline. Few university-based scholars identified themselves principally as specialists in education, and even those who did were slow to develop a self-conscious group identity within the academy (Buckingham 1941). A sense of cohesion among educational researchers resulted, rather, from a convergence of interests between academic scholars and public school officials that emerged in the 1910s during political struggles over the nature and control of local school administration.

### *B. Applied Science and the Politics of Schooling, 1890–1915*

Power struggles in early twentieth-century American schooling arose from the extraordinary growth of urban school systems and from efforts by Progressives to expand the reach of public education. Due to population increases and statewide compulsory attendance laws, school enrollments were soaring, especially in large cities. Public expectations about what schools should do were

also rising under the influence of Progressive ideas and the demands of interest groups. Schools became responsible for imparting vocational skills, "Americanizing" immigrants, and monitoring the physical health and athletic development of their students.

Convinced that existing school systems could not handle the resulting management problems, political coalitions formed in many states and cities to press for comprehensive restructuring of public schooling under the Progressive banner. One of the Progressives's key goals was to create citywide (or, in rural areas, countywide) bureaucracies to replace or subordinate locally elected, often part-time, school boards and superintendents (Tyack 1974). These new centralized, hierarchical systems would rely on specialists who possessed both expertise and relative autonomy from lay interference. School administration would become a profession.

The drive for centralization and professionalization made substantial headway between 1890 and 1920, but the changes were usually incomplete and contested. Public school teachers resisted subordination to administrative bureaucracies (Cremin 1988; Tyack and Hansot 1982; Wesley 1957). Incumbent superintendents and school board members feared displacement. Residents of urban neighborhoods and small towns worried that diminished local control would reduce their ability to shape the education of their children and maintain community identity (Tyack 1974). Many balked at funding expensive school reforms.

As they fought to justify their claims to power and to meet the challenges of day-to-day management, the new generation of professional school administrators and their political allies found educational research to be a valuable resource. Research provided information that was useful in addressing specific school problems. It could also lend the legitimating aura of science to controversial innovations. For example, work in educational psychology that questioned the benefits of repetitive math and spelling drills fueled the Progressive movement's attack on rigid, unimaginative teaching methods (Lagemann 2000). Intelligence and achievement tests permitted the expansion of grouping and tracking methods that classified all students according to presumably objective criteria.[2] These sorting techniques promised to yield better matches between students' capabilities and the content and pacing of instruction, thus reducing dropout rates and reassuring taxpayers that the schools were operating efficiently.

In the 1910s, the study of educational administration emerged as a major subfield within educational research, rivaling psychology in importance. University schools of education established programs to train superintendents and principals in scientific management, which emphasized the use of statistics to monitor school district operations. Researchers in the universities and the schools collaborated to design "child accounting" systems for collecting and interpreting data on attendance and student records. They devised procedures

for evaluating teachers, constructing budgets, and calculating costs (Melcher 1916). The umbrella term "educational measurement" came into use to encompass all forms of quantitative analysis, from psychometrics to economics, that assessed inputs and outputs of educational institutions.

Thus, close cooperation developed between university-based educational researchers and school administrators. Prominent academic scholars engaged in debates over public education policies. Thorndike (1908), for instance, discussed grading and promotion practices. Terman wrote books and articles about how schools might alleviate the health problems of children, and he and his graduate students helped school districts and juvenile correctional institutions in California implement mental testing programs (Chapman 1988; Minton 1988). Concurrently, administrators who had learned research methods during their university training collected information about teaching practices, student behavior, and school management that, in turn, assisted academic inquiries. Shared social experiences and personal connections further blurred institutional boundaries. Like school superintendents, research specialists had often begun their careers as public school teachers and administrators. The web of contacts that linked university professors to current and former graduate students who served as school officials provided two-way conduits between the academy and public policy.

The school survey movement, which showcased advances in educational measurement, exemplified these social networks in action. Under the leadership of a few scholars, notably Paul Hanus at Harvard and George D. Strayer at Columbia, school officials joined forces with universities and private foundations to conduct comprehensive investigations of public schools. Each survey was a massive compilation of data about a particular school district, including the condition of buildings, financing, enrollments, curricula, and student achievement. Between 1910 and 1915, surveys were completed and published for some 30 urban school districts and a comparable number of statewide education systems (Lagemann 2000; National Society for the Study of Education 1914).

Despite—or, more accurately, because of—their purported objectivity, school surveys were political statements. They manifested the confidence of Progressives that facts, if carefully collected and analyzed, would reveal the strengths and weaknesses of institutions and indicate the proper solutions to any identified shortcomings. The proper solutions were cast in terms of Progressive education goals: professional school administration, modernized curricula, and greater attentiveness to variations in student abilities and interests. Thus, surveys helped to shape public opinion and spread the Progressive movement's rationalized model of school administration (Lagemann 2000; Tyack 1974; Tyack and Hansot 1982).

The intertwining politics of educational research and educational admin-

istration during the 1910s cemented a close and reciprocal relationship between the positivist, quantitative methodologies that dominated early educational research and the bureaucratic systems that became a hallmark of Progressive public school reform. The new politics of Progressive school reform also encouraged the creation of formal structures for promoting the collective identity and influence of educational researchers. Among these structures was the forerunner of the AERA.

### *C. The Formation of the NADER, 1915–19*

One legacy of the school survey movement was that educational research gained a permanent foothold within public school systems. Many surveys recommended that school districts form bureaus of educational research to continue the work of investigation and appraisal that the surveyors had begun. These agencies would collect statistics, conduct performance evaluations, implement policy innovations such as testing programs, and keep superintendents and the public informed about conditions and trends (Chapman 1927).

With remarkable speed, the recommendations were adopted. Baltimore established the first bureau of educational research in 1912; New York City and Rochester, New York, followed in 1913, and Boston, Kansas City, and Detroit in 1914 (Chapman 1927; Courtis and Packer 1920). State governments and public and private universities also began to create research bureaus during the 1910s, with Midwestern state universities leading the way. For example, the University of Oklahoma opened a bureau in 1913, and Indiana University and the University of Iowa followed in 1914 (Chapman 1927). Usually these university bureaus had the primary goals of providing technical assistance to their counterparts in local public schools and offering graduate-level academic training to school administrators (Ashbaugh 1918). The result was a web of local and statewide research institutions that provided the context from which the first professional organization of educational researchers emerged.

The precise locus of the new organization's birth was the Department of Superintendence of the National Education Association (NEA), which was the leading national association of public school superintendents. This department concerned itself with school finance, curriculum development, the powers of superintendents, and methods of teacher supervision (Tyack and Hansot 1982; Urban 2000; Wesley 1957). Advocates of educational research were increasingly vocal within its ranks, winning passage of resolutions in 1913 and 1915 that put the department on record as being in support of school surveys and research bureaus (National Education Association 1913, 102–3; 1915, 255).

In February 1915, the Department of Superintendence held its annual meeting in Cincinnati. Present were several research bureau directors who

gathered informally for discussions about the state of their field. Burdette R. Buckingham (1941), who was among them, later gave the only surviving eyewitness account of the event: "Early that morning my friend, Albert Shiels, of the New York City public schools had invited me to meet with him and a few others at luncheon. These others, he said, were all directors of educational research in various parts of the country. I readily accepted the invitation, and when I reached the table I found there were six other men. They were Leonard P. Ayres, Russell Sage Foundation; Frank W. Ballou, Boston; S. A. Courtis, Detroit public schools; Edwin Hebden, Baltimore; George Melcher, Kansas City, Missouri; and Joseph P. O'Hern, Rochester."[3]

The careers of these eight people together formed a microcosm of the early twentieth-century alliance between applied social science and professionalized school administration. Several were veterans of the school survey movement. Ayres, who headed the Department of Education at the Russell Sage Foundation, had carried out numerous surveys, including a comparative assessment of public school efficiency in all 48 states (Lagemann 2000; Tyack and Hansot 1982). Ballou had entered educational research through his association with Paul Hanus at Harvard. After writing a section of Hanus's New York City survey, he went on to become the first director of the Department of Educational Investigation in the Boston Public Schools. Other members of the group had benefited from the survey movement without directly participating in it; O'Hern, Hebden, and Shiels all led bureaus of educational research that had been founded in response to survey recommendations (Buckingham 1941; Chapman 1927).

Buckingham, one of Strayer's protegés, had been a teacher, principal, and school superintendent in the New York City metropolitan area from 1901 to 1914. He became the chief statistician in the Division of Statistics of the New York City School System, where he cooperated with principals to improve the application of measurement techniques in the daily operation of the schools. For example, in June 1914, Buckingham responded to a query from the principal of Public School 31 by explaining how the statistical concept of the median could be used to evaluate students' English compositions.[4] Similarly, George Melcher had combined a lifetime in public school administration with an interest in psychometrics. He had served as a teacher, a local superintendent, and a normal school administrator before becoming the Missouri state superintendent of schools in 1911. In 1914, he had assumed his position as the research director for the Kansas City Public Schools, where he emphasized mental testing (Hubbard 1961).

Perhaps the most remarkable member of the group was Stuart Courtis. Trained originally as an engineer, he had shifted his focus to education and had experimented with mental tests while working as a teacher in Detroit (Chapman 1927). He and his wife, operating out of their Detroit home, printed

tests and sold them to school districts across the country. The Courtis tests were especially useful to school surveyors as a means of assessing student performance in various academic subjects. For example, data generated through applications of Courtis's work helped persuade Boston school officials to set up the research bureau that Ballou headed (Ayres 1918; Chapman 1927; National Society for the Study of Education 1914).

As they reflected on their experiences, these eight men arrived at the idea of forming a new organization to advance educational research. They decided to call it the National Association of Directors of Educational Research (NADER), and before leaving Cincinnati they selected their first officers. Ballou became the initial president of the NADER; Melcher, its first secretary (Buckingham 1941). Courtis agreed to draw up a constitution, which was approved at the next Department of Superintendence meeting in 1916. This constitution committed the NADER to improving public education. It stated that the new association would focus on "promoting practical as opposed to theoretical investigations" (National Association of Directors of Educational Research 1918, 191; see also Buckingham 1941, 349), and it set forth two guiding principles. First, the NADER would seek "the formation of independent departments of educational research in all systems of public instruction." Second, the association would encourage "the practical use of educational measurements in all educational research" (National Association of Directors of Educational Research 1918, 191; see also Buckingham 1941, 347–48)—a reflection of the premium that researchers placed on quantification.

The NADER's earliest membership requirements reflected its pragmatic emphasis and the determination of its founders to create an organization that represented bureaus of educational research. Institutional position—affiliation with a research bureau—was the primary criterion. Although anyone who was "actively and mainly engaged in research work, having for its direct purpose the evaluation and products of educational training or the improvement and efficiency of educational teaching, supervision, or administration," could join, active membership was reserved for research bureau directors and their "immediate assistants" (National Association of Directors of Educational Research 1918, 192). Others connected with educational research could enter only as associate or honorary members.

This initial emphasis on the institutional interests of bureaus of educational research distinguished the NADER from other organizations that were involved in professionalizing educational research. The NADER members regarded research bureaus as a distinct constituency that merited specialized representation. They did not want that representation to be based on any single discipline, as the American Psychological Association was, or to be identified with scholarly pursuits that lacked direct bearing on the scientific reconstruction of public education. The closest counterpart to the NADER

was the National Society for the Study of Education (NSSE), the oldest American association devoted to educational research, which since 1901 had commissioned original research papers on topics in education. Annually, the NSSE published its findings in a yearbook that provided an accessible overview of recent research (National Society for the Scientific Study of Education 1901; Whipple 1938). Its membership overlapped with that of the NADER. Yet the founders of the NADER wished to go beyond the NSSE's yearbook approach to create an ongoing forum for discussion and support among the people who were most directly responsible for linking educational research to public policy.

During its early years, the NADER remained an interest group within the NEA Department of Superintendence. Its collective life revolved around the meetings that it held each February at the department's annual convention. Most sessions at these meetings were open to the public, and they proved to be quite popular. Indeed, members soon found that their crowded programs did not offer sufficient opportunities "to get all of the intimate critical give-and-take upon their problems which they had originally expected," and so in 1919 they decided to add "a one-day meeting open to members only" (Ashbaugh 1921b, 317).

Presentations at NADER meetings dealt with research bureau operations, measurement techniques, and particular school situations. Courtis (1916) exemplified the association's pragmatic tone in an address on test design at a 1916 NADER round table. Acknowledging that he was "more directly interested in the improvement of the efficiency of teaching effort than . . . in the more general problems of purely scientific research," he warned that "if steps are not taken . . . to make standard tests and scales practicable for daily use in the classroom, a reaction against measurement is bound to set in" (1078). The 1917 program featured a report by Buckingham on a proposed scale for measuring pupils' ability to comprehend information about American history, followed by remarks from O'Hern and two state-level research directors about the challenges that research bureaus faced in securing cooperation from skeptical administrators and teachers (National Education Association 1917).

Between meetings, the NADER sustained itself through correspondence and a quarterly internal newsletter, the *Educational Research Bulletin*, that it established in 1916 (Buckingham 1941). Its first attempt to reach a broader audience was a collaboration with the NSSE: a set of 12 essays on educational measurement, written by association members and compiled in a volume entitled *The Measurement of Educational Products*. Appearing as part of the *Seventeenth Yearbook* of the NSSE in 1918, these essays surveyed best practices in the application of standardized tests and statistical analysis to American public education.

By the end of the First World War in 1918, the NADER had 36 active members and four honorary members (National Society for the Study of Education 1918). These individuals and the research bureaus that they headed

exerted influence that was disproportionate to their numbers. Their work was tangibly affecting public policy. For example, many school districts had begun to alter student assignments and teaching practices in response to feedback from standardized testing (Haggerty 1918). However, sustaining unity of purpose among educational researchers and articulating professional standards for the field would prove to be far more difficult than the founders of the NADER originally anticipated.

## II. The Politics of Professional Identity in Educational Research from World War I to 1940

### *A. Growth and Differentiation in the 1920s*

Dramatic changes in educational research after 1918 made the politics of knowledge that surrounded the field more complex. Developments in mental testing, the emergence of new subfields, and the proliferation of research activities in universities challenged the NADER to broaden its mission. Although scholarship and Progressive school reform remained firmly allied, the first hints of diverging group identities among educational researchers surfaced in the 1920s.

A prime source of turmoil was the explosive growth of psychometrics. Mental testing had received unprecedented publicity during World War I due to the U.S. Army's creation of intelligence tests to screen and classify recruits. The army program had an electrifying impact on educational researchers and the public. It demonstrated that group intelligence tests could be administered on a vast scale, and it established a precedent for large, collaborative research projects (Chapman 1988; Kevles 1968; Lagemann 2000; Minton 1988; Spring 1972). Civilian versions of the army materials became available in 1920 (Chapman 1988; Minton 1988; Whipple 1921). Their advent fueled the expansion of markets for psychometric tools. New applications proliferated during the 1920s, including tests that measured aptitudes for occupational tasks and tests designed for college placement (DuBois 1970). Group intelligence testing became routine in urban public school systems and spread into rural schools (Chapman 1988; Tyack 1974).

As psychometrics flourished, other forms of educational research that employed qualitative methods of investigation also gained significance. One example was curriculum and instruction, the study of principles for selecting and organizing the academic and nonacademic components of school curricula (Cremin 1961; Lagemann 2000; National Society for the Study of Education 1926). Another was educational sociology, which viewed education as both a process and a product of social interactions among individuals and groups

(Lagemann 2000; Review of Educational Research Editorial Board 1937; Snedden 1937). The advent of these subfields signaled that educational research was not coterminous with its founding disciplines of educational psychology and educational administration. Other approaches, although still in the minority, contributed topical and methodological diversity.

The various subfields had one thing in common: all received increasing attention in institutions of higher education. Despite lingering prejudices against educational research in American academic culture, the number of universities that had bureaus of educational research rose from seven in 1918 to 29 in 1927 (Tyack and Hansot 1982). Among the important postwar establishments were those at Ohio State University and the University of North Carolina. These institutions remained primarily focused on outreach to local school districts; they assisted with testing programs, ran school surveys, and worked on curriculum design. However, they also conducted or sponsored original studies to generate new knowledge about education (Chapman 1927).

The growth of organized educational research at the university level was related to the concurrent growth of college-level and graduate training in education. During the 1920s, many state normal schools and teachers' colleges merged into four-year colleges and universities (Clifford and Guthrie 1988; Zilversmit 1993). University schools of education expanded their masters and doctoral programs, with the result that the number of doctoral theses completed in education more than tripled between 1918 and 1927 (Tyack and Hansot 1982). These trends created a burgeoning academic market for educational research, since more students were using research findings in their course work and producing research as they pursued advanced degrees.

In response to postwar flux, the NADER altered its membership policies and changed its name. Its members approved a constitutional revision in 1921, agreeing to open active membership to anyone who displayed the "ability to arrange, to organize, and to conduct research investigations and experimentations." No longer did participation depend on a person's institutional position. Rather, the criterion for inclusion became demonstrated competence as a researcher—and the primary indicator of that competence was written work, "published or unpublished studies" (Ashbaugh 1921a, 402–3) that the members of the policy-making Executive Committee could assess. Reflecting this shift, the members voted in 1922 to adopt a more inclusive name: the Educational Research Association of America (ERAA).

Under its new, broader mandate, the association no longer viewed itself solely as representing the interests of research bureaus. It asserted a more ambitious claim to represent the interests of all American educational researchers. The change of goals had little immediate effect on the activities of the organization, but the composition of the membership did shift markedly over the course of the decade. Total membership increased from 77 in 1920

to 158 in 1925 and 329 in 1931. Between 1923 and 1927, the proportion of public school officials rose slightly from 26 percent to 28 percent of ERAA members, but the proportion of university personnel soared from 48 percent to 69 percent, due largely to the decline of normal schools and independent teachers' colleges. Women made significant gains; whereas all the founders of the association had been men, women constituted between 10 and 15 percent of each annual membership list during the 1920s. The ERAA never formally limited or segregated women, who participated in its scholarly and social activities on an equal basis with men and investigated the same range of research topics that men did. However, women did not begin serving as officers until the 1930s, suggesting the persistence of informal bias against them.[5]

Differences in institutional and disciplinary backgrounds did not harden into divisions among ERAA members because, throughout the 1920s, most public school research directors, university professors, and graduate students still held core values in common. Much of the work that university research bureaus did resembled what local public school bureaus had always done: identifying and solving operational problems in the new generation of bureaucratic school organizations. And the careers of prominent educational researchers crossed institutional boundaries. Burdette Buckingham, for example, left the New York City Schools in 1918 to direct the University of Illinois Bureau of Educational Research and then switched to the Ohio State University Bureau of Educational Research in 1921 (Chapman 1927).

Yet signs of potential or actual intergroup friction began to appear. Compared to public school administrators and teachers, university-based educational researchers had far greater resources and opportunities for conducting original investigations—and for producing the written findings that were now prerequisites for ERAA membership. Lured by the more supportive environment of higher education, school personnel who had particular aptitudes for research work often accepted college or university positions (Cushman and Fox 1938). This tendency generated occasional flashes of institutional rivalry and led some ERAA officials to worry that researchers in the public schools were disadvantaged. The president of ERAA, Marion R. Trabue (1926, 338), reported that in one survey of published articles on educational research, "schools other than colleges" accounted for only 20 percent of the authors. "Personally, I wish this Association might in some way stimulate the men in public-school positions to engage more extensively in the work of educational research," he lamented.

The ERAA members also began to grapple with the intellectual distinction between basic research and applied research—or, in contemporaneous usage, between the "pure" and the "practical." In educational research, this distinction was framed in terms of how researchers selected problems for study and whether their findings were meant to alter human behavior in specific edu-

cational contexts. Werrett Wallace Charters at the University of Pittsburgh summarized the prevailing view by explaining that, in pure research, investigators could choose their topics arbitrarily, with no intention or obligation to bring about any particular changes in behavior. By contrast, practical research meant "the investigation of problems which spring from the difficulties of human conduct and whose solutions are evaluated in terms of their efficiency in improving conduct" (Charters 1921, 293). Practical researchers chose their topics in response to the needs of a given social system (i.e., a school district), aimed to change the behavior of that system, and they were judged by whether the results enhanced system performance (Charters 1921).

Charters spoke for most of his colleagues when he contended that educational research was, and should be, essentially practical. "The value of educational measures is judged absolutely by their effect upon school practices" (Charters 1921, 293–94), he insisted. Pure research in education did exist, and it had value because it could produce insights that might someday be useful. But the most fundamental, demanding work in the field involved engagement with educational practices on the ground (Charters 1925).

A minority of educational researchers in the 1920s urged greater attention to research that was not driven by concerns about educational policy. One advocate of this contrarian view was the educational psychologist Walter S. Monroe, who had joined the NADER in 1916 and had been the second president of the association. Monroe succeeded Buckingham as the director of the Bureau of Educational Research at the University of Illinois in 1921 (Hubbard 1962). Denying that educational research consisted solely of discovering facts or solving specific problems, he defined it more broadly as "the process of critical, reflective thinking about educational questions" (Monroe 1928, 21–27). He criticized two of the NADER's founders, Buckingham and Courtis, for overemphasizing the linkage of research to public school administration and teaching (Monroe 1928). The policies of his own University of Illinois research bureau changed in accordance with his convictions; beginning in 1921, the bureau's contacts with local public schools diminished, and its staff members reduced their teaching obligations to permit greater concentration on research (Monroe 1928).

Monroe's stance was unusual in the 1920s. Few educational researchers accepted the premise that university research bureaus, which emphasized applied research, should concentrate on basic research instead. Indeed, most educational researchers resisted categorization as producers of basic or applied knowledge. Summarizing the agenda for the 1923 annual meeting of the ERAA, Secretary-Treasurer Frank N. Freeman noted that an unsettled matter was "whether the Association should confine itself to pure research . . . or whether its aim should be to promote what has commonly been called 'educational research' in public school systems, but which is chiefly the application

to administration of methods of testing which themselves have been worked out by research" (Freeman 1923a, 182). Three study committees appointed to consider the future direction of the association reported simply that most ERAA members were satisfied with the status quo (Freeman 1923b). No further discussion of these issues was recorded.

Yet provocative questions had been raised about the definition of "educational research" and about whether certain forms of knowledge production, such as testing programs and school surveys, enhanced fundamental scientific understanding of education. By the end of the decade, these questions would become more salient as they intersected with other political conflicts over how knowledge derived through research was used in schools.

### *B. The ERAA and Its Journal, 1922–28*

Throughout the 1920s, academic scholars and public school officials commingled amicably at the ERAA's annual meetings to discuss research methods and applications. In both the members-only closed sessions and the public presentations, topics in educational psychology and educational administration remained dominant. Insights from other perspectives sometimes appeared, as in 1922 when the educational sociologist George S. Counts presented his finding that American high schools disproportionately served wealthier families (Freeman 1922). Typical, however, was the 1924 program, which featured a session on methods of instruction in arithmetic and a discussion of statistical norms for standardized tests (Greene 1924).

The highlight of each convention was the annual banquet and presidential address, at which the association's president attempted to summarize trends in educational research over the preceding year. Some presidents used these occasions effectively to illuminate key issues, as Melvin E. Haggerty did in 1921 when he stepped into a controversy over the nature and value of intelligence tests. The rapid spread of testing after World War I attracted critical scrutiny for two reasons. First, disagreements existed about what the tests measured—in other words, about what "intelligence" was (Chapman 1988, 128–35; Henmon et al. 1921; Thorndike et al. 1921). Second, the use of test results to classify children had consequences that struck many observers as discriminatory and undemocratic. American educators and educational researchers often interpreted low test scores as evidence that certain children—particularly poor and minority children—could not learn and should be given separate, inferior courses of study. These practices sparked charges that the Progressive education movement's emphasis on analyzing individual differences had become a cloak for promoting class inequalities (Chapman 1988; Cremin 1961; Ravitch 2000).

In his presidential address, Haggerty warned his colleagues that the subject of intelligence testing was perilously complex. He affirmed the value of efforts to assess the relative roles of schooling and innate mental capacity in determining student performance. Yet he stressed that no simple or consistent relationships existed between test results and educational outcomes. Researchers kept finding examples of children who scored well on IQ tests but did poorly in school, and vice versa. This perplexing evidence, Haggerty asserted, indicated that "success in school work and success in life are not determined by intelligence alone" (Haggerty 1921, 245) and that educational psychology should explore a wider range of human capabilities (Chapman 1988). His cautionary words may have had some effect for, throughout the 1920s, the ERAA remained open to many points of view in the testing debate.

Sustaining communications during the intervals between yearly meetings was the ERAA's flagship publication, the *Journal of Educational Research (JER)*. The *JER* was the brainchild of Buckingham, who, with assistance from Walter Monroe, had founded it in 1919. Although ownership resided with the Public School Publishing Company, a commercial firm, the masthead of the journal proclaimed it to be the "official organ" of first the NADER and then the ERAA. An October 1922 contract between the ERAA and the publisher specified that the editors of the *JER* "shall be selected with the advice and consent of the executive committee of the association"[6] and that editorial policies were subject to the direction of the ERAA.

In their editorial policies, Buckingham and his associates committed themselves to showcasing applied educational research that was accessible and useful to school administrators, teachers, and other interested parties. A statement of purpose in the first issue of the *JER* made the practical orientation explicit. "Research for the sake of research we shall leave to others," the editors proclaimed. "What uses the teacher and the supervisor have made or may make of the findings of the experimentalist, what methods are transferable from the library to the classroom and office, what workable means of meeting common needs have been developed under actual school conditions—these will be our chief concern" (Buckingham 1920, 1).

The content of subsequent volumes reflected these practical, reform-oriented objectives. Most articles explained how to use and interpret measurement techniques or summarized applications of research methods and findings in particular educational institutions—usually in public schools. To reach a broad audience, the editorial board maintained an informal policy of carrying fewer technical articles than did its nearest competitor, the *Journal of Educational Psychology* (Freeman 1923b). The journal aimed to define, illustrate, and promote the state of the art through examples and instruction. It provided a lively window into the politics of knowledge that ensued when educational research encountered classroom realities and the general public.

College or university professors wrote a majority of *JER* articles during the 1920s, but school administrators and, more rarely, teachers also contributed (Ashbaugh 1928). In one 1924 selection, for example, Sara E. Weisman, the principal of the Hawthorne School in Spokane, Washington, reported on the use of tests to guide high school students in selecting courses (Weisman 1923). In October 1926, the journal carried an article in which Carleton Washburne, the school superintendent in Winnetka, Illinois (a district noted for its exceptional commitment to Progressive education), described original research that personnel in his district had conducted on teaching remedial reading (Washburne 1926; Zilversmit 1993).

As had been true since the 1910s, the basic political goals of ERAA members were to promote the formation of research bureaus and to cultivate public respect for educational research as an authoritative profession. The pages of the *JER* revealed the challenges inherent in seeking these goals. Practitioners and supporters of research portrayed themselves as beleaguered bearers of scientific truth, contending against unenlightened supervisors, hostile or uninformed popular opinion, and amateur meddling. Their writings reflected frustration with the gradual, uneven advance of Progressive educational policies after World War I as resistance to both the content and the cost of proposed reforms slowed the pace of change (Cuban 1984; Zilversmit 1993). In a 1921 *JER* article, one state education official outlined ways to persuade local policy makers that school districts should support research bureaus and allow research findings to guide policy (Alexander 1921). Another commentator, writing in 1925, hoped that skepticism about "scientific education" would vanish as a consequence of "new educational methods, which will modify the normal mind so that it will accept truth in preference to more palatable fiction" (Stark 1925, 84).

Educational researchers also advocated increased state and local spending on education and sought to create favorable conditions for it. Researchers argued that educational measurements could help public school districts better calculate and legitimate their financial demands. One 1924 article, for example, urged city school officials to make greater use of cost accounting concepts. "In this respect," the author fretted, "we must admit that school administration is somewhat behind administration in business, industry, and commerce, where every proposed change in policy and program is preceded by careful cost estimates and followed up by careful cost studies" (Sears 1924, 263).

The most contentious discussions in the *JER* revolved around applications of mental testing. Not only did educational researchers continue to debate the definition of "intelligence" and the merits of various test-driven schemes for classifying students but they also observed that testing had unexpected—and sometimes disturbing—effects on teaching. As Charters noted, testing

programs induced "teachers to think that success is judged by the use of standard tests on the mechanical phases of instruction" (1922, 344) and, consequently, to narrow the focus of classroom work by overemphasizing skills that improved test results (Tyler 1938).

Even more worrisome, from the perspective of the ERAA leadership, was the entanglement of educational measurement in public school labor disputes. Seeking greater control over teachers, school administrators sought to quantify teacher performance, using students' test scores as one ingredient of teacher merit ratings. These actions elicited strong resistance from teachers' unions. Researchers found themselves in an awkward position. On the one hand, they believed that measurement had a vital role in monitoring teachers to ensure that Progressive educational policies were implemented in the classrooms. On the other hand, however, they feared that power struggles over teacher evaluation would detract from the use of testing to improve the quality and efficiency of instruction. The first issue of the *JER* carried a warning from Walter Monroe that overemphasis on testing "for supervisory purposes" tended to "prejudice teachers against the use of educational tests, or at least divert their attention from the instructional task" (Monroe 1920, 68). Seven years later, Buckingham judged that this warning had been prescient. He detected "an under-current of disappointment in the results of the test movement . . . because the point of view in testing has been chiefly administrative and supervisory" (Chapman 1927, 165; see also Buckingham 1927).

After a decade of growth in educational research, as revealed in the *JER*, the ERAA still faced a persistent problem: the inability of researchers to give definitive guidance to practicing educators. No one could say unambiguously what intelligence tests measured or whether homogenous ability groupings of children produced better learning outcomes than heterogeneous ability groupings did. This state of affairs led Stuart Courtis to temper his optimism with suspicions that educational research lacked adequate theoretical foundations. The field, he told his colleagues in 1928, had "no means of interpreting the results of our measurements except in terms of assumptions which have not been proved to fit the conditions. We speak of ability, capacity, nature, nurture, although none of these concepts is more than a vague suggestion of obscure trends" (Courtis 1928, 131–32). Provocatively, Courtis concluded: "We have no science worthy of the name, and no prospect of developing one so long as we refuse to face the inadequacy of our present results and the non-scientific character of our many rationalizations" (131–32). His words suggested the value of stepping back from efforts to change specific educational practices and heeding Monroe's expansive call for "critical, reflective thinking." Before his colleagues could respond, however, the ERAA had to confront the first crisis of its history.

### *C. The Crisis of 1928 and the NEA Affiliation Decision*

In 1928, the ERAA once again changed its name, becoming the American Educational Research Association (AERA). Concurrently, it plunged into a conflict that nearly destroyed it. A clash of interests between the Public School Publishing Company and the association caused the AERA to lose control over the *JER* and forced its leaders to recognize a fundamental mismatch between their ambitious goals and their limited resources.

The proximate source of the crisis was Buckingham's announcement in January 1928 that he was retiring from the editorship of the *JER*. The deeper sources lay in the incompatible objectives of AERA members, who viewed the journal as a tool for professionalizing educational research under their leadership, and the publisher, which viewed the journal as a means of enhancing its profitability. George A. Brown, the president of Public School Publishing, wanted to gain greater power over the *JER* and sell more subscriptions. In February 1928, he suggested that the right to participate in setting editorial policies be extended to other scientific and educational associations—the NSSE, the National Society of College Teachers of Education, and the American Association for the Advancement of Science—and that the publisher be given the final say over all decisions. Because this plan would prevent the journal from continuing as the AERA's official voice, it was unacceptable to the AERA Executive Committee. Bitter negotiations ensued, ending in June 1928, when Brown abrogated the 1922 contract by installing a new editorial board without the AERA's consent and removing all references to the association from the journal.[7]

The shock of this debacle convinced most AERA members that they could no longer entrust their publications to any commercial firm. They decided instead to establish their own proprietary journal. Reviving an idea that had been under discussion for several years, a committee recommended in 1930 that the AERA create a quarterly review of educational research.[8] However, the association lacked the human or monetary resources to launch such a venture. The struggle over the *JER* had shattered its finances, prompted the departure of several prominent active members, and eroded confidence among those who remained. Lacking both a strong, formal organizational structure and a substantial revenue base, the AERA found itself so weakened that its survival was jeopardized.

A potential solution to the crisis existed: the AERA could affiliate with the NEA, from which it had originally sprung. The two organizations had maintained cordial relations and overlapping memberships; as of February 1930, 81.5 percent of AERA members also belonged to the NEA.[9] Like most AERA members, the NEA Research Division viewed research primarily as a means of generating factual knowledge that could shape school administration and

bolster efforts to gain more financial support for public education (Morrison 1956; Urban 2000). Indeed, John K. Norton, the director of the Research Division, was an influential AERA member who had served as the president of the association in 1927–28 (Urban 2000).

Under the leadership of President J. Cayce Morrison, the AERA began discussions with the NEA in May 1929. Morrison was well suited to the task, for he was an educational diplomat whose career exemplified the intertwining of research and school administration. He had gained an understanding of educators' concerns through his experience as a teacher and a principal and as the New York State Commissioner for Elementary Education. In addition, he had participated in school surveys, testing programs, and the development of university courses on educational research.[10] The negotiations yielded an agreement—adopted at the 1930 NEA convention—under which the AERA received free office space in the NEA's Washington, DC, headquarters, two years of cash subsidies, and a pledge that the NEA would assist the proposed new AERA journal.[11]

The affiliation decision marked the beginning of a new phase in the history of the AERA. It coincided with the onset of the Great Depression, which brought economic hardship to many educational institutions and tempered the confidence in progress that had undergirded the rise of educational research. Together, these events highlighted divisions between different groups of educational researchers, strengthened preexisting doubts about the impact of scientific research on educational practice, and obliged the AERA to reconsider virtually every aspect of its operations. A more introspective, circumspect attitude took hold during the 1930s as AERA members shifted their focus from promoting school reform to grappling with the internal organization of their field and rethinking the relationship of knowledge to action.

### *D. Widening Horizons and Unresolved Conflicts in the Era of the Great Depression*

For the post-1930 AERA leadership, the highest priorities were to expand the size and the activities of the association so that it could generate more income and bolster its centrality in the web of communications that linked scientists and educators. These goals were difficult to advance in a time of economic distress. Total membership rose from 329 in 1931 to 402 in 1935 and 496 in 1940—a respectable but gradual increase that was perceived within the AERA as insufficient to provide adequate resources for the future.[12]

Restrictive procedures for approving new members were partially responsible for the unsatisfactory growth rate. Active membership remained an invitation-only privilege that was granted only after the AERA Executive Com-

mittee laboriously reviewed the credentials of each candidate. The Executive Committee had further slowed the process by imposing conditions that exceeded what the constitution required.[13] As Buckingham later summarized, "good men and women were being kept out merely because their cases were not being presented to the satisfaction of the [Executive] Committee" (Buckingham 1941, 359–60).

But external changes in the balance between public school research bureaus and institutions of higher education also hampered the growth of the AERA. The Depression adversely affected public school systems and the research activities that they sponsored. In 1936, AERA member William G. Carr, who headed the NEA Research Division, reported on the plight of research workers in urban schools. The NEA data showed that in cities with populations of at least 100,000, the median salary for "supervisors of research, tests and measurements" in local school districts declined by 22 percent from 1931 to 1935. Many research bureaus slashed employment and transferred research specialists to other duties (Carr 1936).

Tight finances and uncertain employment made it more difficult for school officials to participate in AERA activities. Public school researchers remained a vital constituency of the AERA, and two of them held the presidency of the association during the 1930s: Paul T. Rankin of Detroit (1933–34) and Philip A. Boyer of Philadelphia (1935–36). By 1940, however, they accounted for only 20 percent of its members and an even smaller share of the attendees at its annual meetings (Cushman and Fox 1938; Walker 1940). Concern about their diminishing presence became so great that, in 1941, the AERA created a Committee to Consider the Relation of the American Educational Research Association to Research Bureaus in City School Systems.[14] The AERA, born in the context of city school systems, now regarded that formative relationship as a problem to be investigated rather than a certainty to be taken for granted.

At the same time, educational researchers in colleges and universities strengthened their collective identity and consolidated their dominance in the field. University colleges of education and university-based bureaus of educational research fared better than the public schools did in providing time and money for research during the Depression years. They were also increasingly populated by faculty members who lacked the combination of school experience and academic experience that had characterized Buckingham, Case Morrison, and other pioneers. By the late 1930s, professors of education had become a distinct occupational group; a majority had never held teaching or administrative positions in the public schools (Clifford and Guthrie 1988). The continuing expansion of graduate study in education created what two contributors to the 1938 NSSE yearbook called "an artificial stimulus" that "produced a surprising amount of uncoordinated, college-directed research" by students whose work was driven solely by academic requirements (Cushman

and Fox 1938). University-level educational research was beginning to constitute a self-consciously separate social and intellectual world.

For several reasons, the AERA was not well equipped to appeal to the academic community that constituted its most promising source of future recruits. One of its disadvantages was its isolation from other professional and scientific societies that dealt with education. During its formative years, for reasons that are obscure, the AERA had not fostered regular contacts with nationwide organizations beyond the NEA, the NSSE, and the National Society of College Teachers of Education. For instance, it was seldom in communication with the American Council on Education, the National Research Council, or professional associations that represented individual academic disciplines. It had thus limited its visibility and distanced itself from cutting-edge trends elsewhere in education and the social sciences.

The AERA's appeal was particularly minimal to scholars whose primary research interests in education lay outside educational psychology or educational administration. Many subfields in the humanities and the social sciences were expanding in the 1930s. The social upheavals of the Depression years stimulated work on such topics as how children developed concepts of social organization, how schools related to class inequalities, and how social environments affected individual behavior. Yet the AERA downplayed these issues. References in its publications and programs to the changing social and political context of education were infrequent, reflecting a commonplace judgment that much literature on those issues was not "systematic" enough to qualify as scientific research (Fraser and Smith 1939, 357).

Finally, the AERA's self-identification with the view that research should remain an adjunct to public school administration deterred researchers who did not view their work as a tool for reforming public education. "Pure" research became more feasible and abundant as the community of scholars who specialized in education grew larger and more institutionalized. By the 1930s, university professors and their graduate students no longer had the same felt need to connect directly with the public schools as their predecessors had done. They had other ways of developing their ideas and building legitimacy and publicity for their work by networking among their academic peers. They also increasingly accepted the view, which had gained currency in American scientific circles since World War I, that academic scientists should avoid direct engagement in ethical and political controversies and should concentrate on generating value-neutral empirical knowledge about natural and social phenomena (Reuben 1996). The AERA, with its fiercely practical ethos, had not kept pace with these shifts in the production and organization of knowledge. As it sought to tap more deeply into academic constituencies, it faced pressure to reevaluate both its traditional concentration on applied research and its links to Progressive educational reform.

Gradually recognizing their shortcomings, AERA officials began to alter course. During the 1930s, they reached out to organizations that they had previously ignored. For example, the association joined the National Council of Education, the National Committee on Research in Secondary Education, and the National Research Council's Division of Anthropology and Psychology. In 1938, the AERA became an associate member of the American Council on Education and an affiliate of the American Association for the Advancement of Science.[15]

The AERA publications program was revamped, with the new proprietary journal, the *Review of Educational Research*, as its flagship. J. Cayce Morrison, who switched to the AERA Publications Committee after his presidency ended in 1930, and Frank N. Freeman, the journal's first editor, oversaw the basic design of this enterprise. The *Review* was not a traditional scientific journal that carried original research papers. Nor was it an annual review similar to the NSSE yearbooks. Rather, it was a periodical reference work, regularly summarizing recent findings in educational research. Five issues of the *Review* appeared per year, with each issue devoted solely to one out of 15 different subjects. For example, the inaugural January 1931 issue focused on "The Curriculum," while succeeding issues addressed topics such as "Teacher Personnel" and "Mental and Physical Development." Since it took three years to cover all fifteen areas, editorial planning fell naturally into three-year "cycles."

The *Review* differed markedly from its predecessor, the *JER*. Whereas the *JER* had carried a mixture of articles, editorial commentaries, and news items, the *Review* contained only review essays, whose authors were selected by the editorial board. In place of the *JER*'s didactic and sometimes polemical style, the new journal had a neutral, sober tone. Its contributors confined themselves to identifying major themes and findings, noting gaps in scientific investigation, and offering comprehensive bibliographies.

Since the editorial board changed the subject headings over time, the evolution of the *Review* during the 1930s charted the intellectual development of American educational research. Most of the studies that were reviewed still fit into the categories of educational psychology and educational administration. Recurrent headings such as "Finance and Business Administration" and "Elementary School Methods" summarized accounts of school buildings, personnel policies, and instructional practices. The *Review* also featured extensive coverage of research methods to help educational researchers cope with a proliferation of quantitative and qualitative techniques (*Review of Educational Research* Editorial Board 1939; Walker 1956).

By the mid-1930s, the journal's editors had begun to respond to the diversification of the field. In 1936, they added "History of Education and Comparative Education" and "Mental Hygiene and Adjustment" (which in-

cluded issues such as juvenile delinquency) to the rotation of topics. "Educational Sociology" followed in 1937, and this was expanded into "Social Background of Education" in 1940. The editorial board of the *Review* resolved to achieve greater diversity—in terms of age, institutional position, and point of view—on the subcommittees that commissioned each issue.[16]

Although the *Review* was the most important AERA publication, it was not the only one. The AERA collaborated with Phi Delta Kappa on a dictionary of educational terms and with the NEA Department of Classroom Teachers on a joint 1939 yearbook entitled *The Implications of Research for the Classroom Teacher*.[17] It also sponsored the *Encyclopedia of Educational Research*, which first appeared in 1941, although this project did not originate within the association.[18]

In 1938, Monroe took the lead in forming an AERA Committee on Awards to identify outstanding published studies for recognition each year at the annual banquet. These awards had several purposes. They were meant to help set standards of excellence, to encourage researchers in disciplines that were underrepresented within the AERA, and to clarify that the association welcomed studies that had no immediate application as surely as those that did. Although educational psychology was the dominant category, the honorees included works as divergent as the historian Samuel Eliot Morison's (1935, 1936) history of Harvard University in the seventeenth century, a treatise on school law by Newton Edwards (1933), and analyses of Progressive education practices in American schools (Wrightstone 1935, 1936).

Yet the awards program became mired in controversy. Some AERA members charged that the selection procedures were unjust and too protracted, and the officers of the association could not settle the dispute.[19] The program collapsed in 1942. Its fate indicated that after a quarter-century of efforts to craft a unifying professional identity, educational researchers still had not settled key issues that the politics of knowledge presented in their field. Fundamental questions about what qualified as scientific research on education and how to appraise the value of research work remained contested.

Concurrently, the bonds between educational researchers and the Progressive Education Movement were eroding. During the 1930s, the AERA downplayed the notion that educational research could and should help implement a vision of a more efficient, humane society. There were exceptions among individual AERA members who openly sympathized with Progressive principles and engaged controversial policy issues. For instance, the psychologist Ralph Tyler was a key participant in the Eight-Year Study. Sponsored by the Progressive Education Association, this project assessed whether students from high schools with Progressive curricula performed as well in college as students from traditional college preparatory backgrounds did (Cremin 1961; Lagemann 2000). Another example was the curriculum specialist Harold O. Rugg, whose conviction that schools should teach young people to think critically

about social issues put him in the thick of political struggles over textbook content and curriculum design (Lagemann 2000; Ravitch 2000, 190–96; Zimmerman 2002). But the *Review* and other AERA activities largely eschewed the explicit concerns about the overarching purposes of education that were central to educational discourse during the Depression era (Bowers 1969). Their focus was narrowly professional and insular.

This cautious political stance reflected a more modest view of what scientific research could accomplish, as well as recognition of the divisions that kept educational researchers from speaking with one voice. In the *Thirty-seventh Yearbook* of the NSSE, which appeared in 1938, several prominent AERA members contributed to a symposium on "The Scientific Movement in Education" that examined major developments in educational research since the first AERA-NSSE collaboration in 1918 (National Society for the Study of Education 1938). The symposium presented a mixed appraisal. Solid advances had been made in defining, measuring, and responding to individual and group differences in aptitudes and skills. But much of this knowledge still had not translated into educational practice. Most teachers and administrators either remained unaware of research findings or did not apply them, and many aspects of education remained poorly understood.

Commenting on the relationship of science to educational policy, Freeman concluded that educational researchers could not claim to be authoritative arbiters of policy disputes. "Let it be admitted at the outset that most, if not all, of the science that has been developed up to the present is incompetent to settle, or even to serve as a direct and sufficient guide to, conduct" (Freeman 1938, 490), he stated. Nevertheless, science could speak to goals and choices, especially by providing "comparison between the experiences of different persons and . . . social evaluation of experience" (493) in different times and places. His words epitomized the shift in sentiment that had occurred since the 1910s. No longer were educational researchers inclined to make sweeping pronouncements about the power of facts and logical inference to rid schools of arbitrary, outdated methods that impeded social progress. Rather, on the eve of World War II, they were generally content merely to affirm that their work could contribute, as one source among others, to the ongoing process of shaping American public education.

## III. Conclusion

The gradual distancing of the AERA and educational research from the politics of Progressive education resulted from a conjunction of influences. Between the mid-1910s and the late 1930s, the membership of the association diversified beyond its foundations in educational psychology and public school admin-

istration. It encompassed a wider variety of disciplines and institutional settings, with university-based researchers gradually becoming dominant. These trends exposed and reinforced intergroup differences that hindered the AERA's quest to build a united professional community capable of providing consensus-based scientific guidance to educators. The norms of academic social science—which increasingly favored an ideal of disinterested scholarship, not Progressivism's model of science directly engaged in social reform—weakened the linkage of research to public policy. So did experience with the limited ability of educational research to solve the practical problems that faced school administrators and teachers. All these factors converged amid the economic stresses of the Great Depression to solidify the retreat of the AERA from its founders' enthusiasm for the Progressive education movement.

In some respects, that retreat was a by-product of success. Research bureaus, standardized testing programs, and other innovations that were contested novelties in the 1910s had become orthodox by the 1930s. As the Progressive tenets of centralized administration and differentiated curricula gained acceptance, controversies over school organization and educational measurement ebbed (Courtis 1938; Tyack and Hansot 1982). Educational researchers, who had initially rallied around those struggles, shifted their attention away from the scope and content of public schooling and toward the intellectual and institutional structures of their own profession.

Equally important, however, was what educational research did not achieve. Through interactions with school personnel and the public, researchers gained feedback about the difficulties of integrating research methods and findings into the design of curriculum materials, teaching methods, and administrative practices. Much of that feedback provided evidence that scientific research alone could not definitively answer fundamental political questions about ends and means. One example was the protracted, unresolved controversy over the meaning and use of intelligence tests. Another was the development of quantitative merit-rating systems for teachers, which thrust educational researchers unexpectedly and often reluctantly into a clash of interests between teachers and administrators. The establishment of a scientific basis for public education proved to be more abrasive and elusive than its advocates had expected. Even before the Depression of the 1930s raised broad doubt about the inevitability of progress in American society, the level of conflict and uncertainty that educational researchers experienced prompted them to scale back their most optimistic expectations.

The growth of a cautious, inward-looking stance among educational researchers comported with a general tendency in American social science during the 1920s and the 1930s to reject engagement with issues of values and morality. Neutrality and detachment became watchwords for scholars who wanted to avoid any hint of bias that might call into question the quality of their work

or jeopardize their professional autonomy (Novick 1988; Reuben 1996). This equation of scientific objectivity with the rejection of value judgments was particularly appealing to educational researchers, who faced abiding skepticism from other academics and the public that education could be made scientific. Uneasy about their status within the academy, university professors—who by the 1930s formed the core of the AERA leadership—focused more on enhancing the rigor of their methods and less on addressing thorny questions about the goals of public schooling and how those goals could best be attained.

As Lagemann (2000) has suggested, the original configuration of the alliance between academic educational research and public school administration fostered dynamics that made it hard to sustain, especially as its balance of power tilted toward the academic side. An instrumental focus on changing public schools alienated scholars who did not share that commitment; Buckingham (1941) acknowledged in retrospect that the AERA's privileging of applied educational measurement over basic research had exclusionary tendencies that were "indefensible and even naïve" (348–49). Research that was not quantitative, or that did not fit under the headings of educational psychology or administration, received short shrift. For their part, public school administrators and teachers suffered from a lack of resources that constrained their ability to keep pace with, and contribute to, the production of scientific knowledge about education. They were often wary of research that became ever more voluminous, specialized, and tangential to the classroom performance of students and teachers (Newlon 1923). Maintaining a sense of unity among these distinct interests, as the AERA aspired to do, was an inherently difficult task that grew more arduous with the passage of time.

Yet the aspiration remained a compelling one. The particular politics of knowledge that gave rise to educational research at the turn of the twentieth century, with its faith in fruitful collaboration between science and educational practice, was durable as well as limiting. The discussions that began in the 1920s and intensified in the 1930s about disciplinary and institutional diversity, and about the nature and purpose of research, mattered not because they settled these issues—they did not—but rather because they opened long-running debates that gradually undermined the field's original configuration. Not until the 1960s and the 1970s would the AERA clearly move beyond the legacy of its founders by aligning itself decisively with academic social science, broadening its membership base, and considering how to rebuild its relationships with educators in new ways.

## Notes

1. The American Educational Research Association Archives are split between the University of Washington and the Hoover Institution at Stanford University. All references to the American Educational Research Association Archives in this article denote items that are located in Special Collections, Allen Library South, University of Washington, Seattle.

2. Testing and the classification of students were not new. Since the mid-nineteenth century, American school officials had used oral and written tests as administrative tools, and the construction of ability groupings did not necessarily depend upon standardized mental tests (Resnick 1981; Tyack 1974). However, the testing movement of the early twentieth century expanded, reinforced, and provided additional justification for these practices.

3. In a letter to the AERA historian Charles Burgess, dated May 11, 1967, Courtis disputed some details of Buckingham's version—principally by claiming that Buckingham was not a member of the founding group—but did not offer an alternative interpretation (American Educational Research Association Archives, box 18, folder 2).

4. American Educational Research Association Archives, box 43, folder 2.

5. The authors compiled the data that are reported in this paragraph from ERAA membership lists published in various issues of the *Journal of Educational Research* during the 1920s.

6. American Educational Research Association Archives, box 10, folder 80.

7. American Educational Research Association Archives, box 1, folder 5; box 10, folders 56, 76–77.

8. American Educational Research Association Archives, box 1, folders 5–6.

9. American Educational Research Association Archives, box 10, folder 72.

10. American Educational Research Association Archives, box 28, folder 1; box 52, folder 6.

11. American Educational Research Association Archives, box 10, folder 7.

12. These statistics are for the end of the calendar years indicated, and they are drawn from the annual reports of the AERA secretary-treasurer.

13. American Educational Research Association Archives, box 1, folder 6.

14. American Educational Research Association Archives, minutes, box 1, folder 1.

15. American Educational Research Association Archives, box 1, folder 7.

16. American Educational Research Association Archives, box 6, folder 10.

17. American Educational Research Association Archives, box 1, folder 7.

18. Walter Monroe started work on the *Encyclopedia* in the mid-1930s, with the cooperation of several other scholars, the University of Illinois, and the American Council on Education. When these parties ran short of funds, they approached the AERA for help, which the association agreed in February 1938 to provide in exchange for the right to place its name on the publication (American Educational Research Association Archives, minutes, box 10, folder 1).

19. American Educational Research Association Archives, box 1, folder 7; box 10, folder 1.

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