

THE CRACKED CAKE OF EDUCATIONAL CUSTOMS
AND EMERGING ISSUES IN EVALUATION

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The changes taking place in American public schools today have a familiar ring. Contact replaces isolation as new social groups (business, federal agencies) engage themselves in school affairs. Heterogeneity displaces homogeneity when school staffs expand to include people from different occupations (social work, psychology, library work) and teachers are more diverse in social and educational backgrounds.¹ A hierarchical, paternalistic authority system is challenged by subordinates who clamor for a say in decision-making. Interaction within the subsystem quickens as new kinds of buildings and work patterns (team teaching for example) eliminate the walls separating fellow teachers and fellow students. Age-old pedagogical conventions are discarded as students are turned loose to teach themselves with the help of complicated, expensive machines. All these juxtapositions have been witnessed before by anthropologists and sociologists studying cultural and social change; the analogy to processes of modernizing societies is striking. In Walter Bagehot's phrase, "the cake of custom is cracking."²

Cultural and social change involves shifts in how people assign value to various parts of their world; ambiguities arise as old certainties melt. This paper explores this process as

educational evaluation confronts a system in transition; it focuses on issues which arise as a consequence of change.³ Such analysis requires more than mere assertion that changes are taking place--the trick is to trace their specific effects. There is the temptation, often yielded to by sensational journalists, to see a revolution in every protest rally. Conservatism seems indicated. I shall, therefore, limit my observations to trends which are already visible and, in sketching out probable effects, eschew long lines of inference. It is, in fact, very doubtful whether social science theory permits us to gauge anything more than such first-order effects. Yet it is interesting that the implications of current educational change are such that even a prudent approach produces a set of rather complicated possibilities.

Organizational Trends and Evaluation

Using the local school district as our point of reference, we can classify organizational trends occurring today as "external" and "internal." We begin with events taking place in the external system. There seems little doubt that the augmented roles of the federal government, business corporations, and universities will have important effects on the public schools.

The activities of the federal government erode educational tradition. We can see this as the government legitimates and diffuses that set of ideas symbolized by the phrase "research and development." This conception of educational practice stresses a core idea of rationality in governance--it applies scientific ways

of thinking to the appraisal of alternatives and to the making of decisions. This viewpoint is not new to university professors. Yet as a statement of official government policy, backed by public tax monies, it is novel for the public schools. The research and development viewpoint has migrated from universities and industry to school boards justifying their claims for federal grants. It becomes part of the working reality of school officials because it is built into the rhetoric of applying for funds and undergrids the logic of allocation used by federal agencies. We need not argue that school officials understand it fully to argue that it influences their actions. Thoughtways can affect organizational behavior even where understanding is incomplete.⁴ It is becoming routine for federal agencies supporting new programs to require recipients to build in evaluation procedures. Such requirements force compliance to the new ideology and undermine belief in tradition as the warrant for educational practice.

Federal activities in education are conducted by a variety of agencies featuring a variety of primary objectives.⁵ It seems that once an agency takes on the foundation function, its officials begin to act like foundation men; they prefer to back undertakings which are original and, if possible, dramatic. Thus, new funds, coupled with diverse sponsors who bend toward the novel, produce an increased number of institutional options and thereby add to the alternatives confronting decision-makers in local school districts. Such an increase in options reinforces notions of rationality conveyed by the research and development ideology. The necessity to make choices forces people to attend to the

grounds for choice. The larger the number of alternatives, furthermore, the more those who would prefer to "stand pat" must defend their inactivity as a choice in and of itself. This is not to say that the availability of options carries assurance that all or even most will be adopted by local school officials. But when we recall the potency of incentives possessed by the federal government (i.e., large amounts of new monies, a capacity to give national publicity to selected school systems), it seems reasonable to expect at least some of the new approaches to enter school decision-making. It is theoretically possible, moreover, that some highly innovative school systems will make radically divergent initial choices (e.g., Pittsburgh's commitment to educational parks) and, constrained in the selection of subsequent solutions, will ultimately branch into highly divergent overall solutions. It is probably too early for us to conduct empirical studies of radical branching, but it is a possibility well worth keeping in mind.

Business corporations dealing with educational matters will add to the number and range of instructional practices and solutions; individual firms, in fact, will do so or go out of business. The new firms combining publishing and electronic resources, moreover, frequently have vast financial resources available for development, production, and sales. Competition between firms is likely to be fierce, particularly as each battles to get and hold as large a share of the market as possible. Recall as well that when businessmen talk about "merchandising," they are describing effective techniques for disseminating practices. If we can assume that no

single firm or coalition of firms monopolizes sales, the outcome will be further differentiation among school systems as patterns of purchasing and implementation vary.

It is many years since Veblen showed that universities act like business corporations in struggling for prestige, wealth, and influence.⁶ They, like business organizations, are under pressure to come up with differentiated "products" for the educational market. Universities have their own resources in countering competition from government and business; they export highly trained persons as well as ideas. Graduates of a particular university can be uniquely competent in implementing and refining an approach developed at their institution; professors acting as consultants widen the institution's sphere of influence. Competition between universities is, of course, softened by cooperation among specialists from different institutions (e.g., the professor-developed curricula), but the net effect is similar for local school officials. They confront not only diverse university programs but demands for more and more student time issued by competing hands of university scholars. Professors engaged in public school affairs produce alternatives which must be considered by those governing school districts.

Changes in the external system, then, point to greater pressures on local decision makers to deal with ever more possible lines of action. School officials will probably look for ways to reduce those pressures; inquiry would probably reveal that structures are being constructed now to filter and contain innovative forces.⁷ Yet the external system, primarily because it is external

and largely outside the power system of local officials, can stay with its self-appointed function of generating new ways to keep school. School officials, whether they wish change or prefer continuity, will have little choice but to examine an expanding number of instructional approaches in the years ahead.

The examination of new alternatives will require considerable increases in the amount of evaluative activity carried on by school personnel. The justification of a particular choice requires comparisons between alternatives and the explication of general grounds for choice; effects on students and the rating of effects as more or less desirable will be difficult to avoid. Thoughtful school board members, administrators, and teachers will be skeptical of claims made by sponsors of any given approach. Less thoughtful colleagues may find that the public expects them to appear as if they are giving careful consideration to new possibilities. One does not need to be a specialist in evaluation to realize that tradition is no guide in choosing between competing novelties.

The evaluative load will increase most dramatically where school systems undertake large-scale changes. The simultaneous introduction of innovations creates a special and demanding evaluative problem, for one must take account of local circumstances and interaction effects among innovations. For example, a school system might decide to combine educational parks with computer-assisted instruction. What affective outcomes flow from impersonalities associated with man-machine systems and sharp increases in the number of fellow students? Situations of this sort do not permit local officials to apply evaluations developed elsewhere; they must do their own digging.

Two major trends are taking place in the internal system of public schools, and both are likely to have serious implications for the conduct of evaluation. The first, functional differentiation, develops quietly and may go unnoticed. The second, "teacher militancy," hits the headlines almost daily. Both trends, however, seem to share a common effect. They weaken familistic and paternalistic conceptions of authority relationships among people working in schools.

The history of American school organization is largely the story of increasing specialization in the knowledge to be transmitted and in the tasks of those engaged in transmitting that knowledge. Contrast, for example, the one-room school house of the nineteenth century with its modern counterpart, the rural regional school. Grades, subjects, and teaching tasks have all been subdivided. Today, specialists counsel students, supervise their health, store and distribute books, purchase and distribute audiovisual equipment, and visit families with problems. These specialists, moreover, have separate occupational associations concerned with "professionalizing" each subfield. One influential spokesman has called for the creation of a national system of specialty boards for various categories of teachers.⁸

Yet the division-of-labor we see today may prove to be but a pale prologue to much greater differentiation in the future. Functional differentiation among school professionals, so far, has tended to be differentiation among equals. But now we see new forms of stratification being introduced as specialists of lower or higher status are hired. Some school systems, for example, are

employing teacher aides whose credentials make it very unlikely that they will ever move into teacher ranks.⁹ Team teaching arrangements in some places, on the other hand, involve higher status for team leaders and senior teachers.¹⁰ New technologies bring specialists, sometimes of higher rank, in their wake; we now have television teachers, programmers of instruction, and computer experts. Similar things are happening in central offices where superintendents look for men to specialize in relationships with the federal government, experts in collective bargaining, and men who can design program budgets. The pace of role differentiation is quickening.

Problems of communication and conflicts in orientation occur more readily when systems become internally differentiated.¹¹ Occupational differentiation produces specialisms not only of skill but of perspective, of moral outlook.¹² Additional layers of authority in organizations complicate communication within by producing more blockages in the flow of information and affect.¹³ Thus, we can look ahead to schools and school systems where people of diverse outlook and rank find it harder to agree on instructional matters. We expect that mechanisms will be developed to cope with this problem. Building such mechanisms, however, requires considerable time, and it is debatable whether they ever attain the easy consensus associated with earlier social homogeneity.

Perhaps "teacher militancy" is a special case of role differentiation; in any event, it is clear that teacher demands are producing controversy over instructional matters as well as salaries and working conditions. The New York City strike is a recent

example. There the union bargained hard and long over whether the More Effective Schools Program would receive additional financing. Nor is New York unique, for state after state is making legal provision for the participation of teacher groups in setting school policy.¹⁴ Other categories of school workers are also agitating for more influence in instructional matters.¹⁵ It is ironic that the external system should begin to produce increased options at that point when overt conflict on instructional policies emerges within the internal system.

Evaluation will undergo alterations where instructional policy-making is colored by conflict. Spirited advocacy by opponents will make policy deliberations more like courtroom trials and legislative battles. Protagonists, eager to cloak their positions in the garb of educational superiority, will buttress their beliefs with evaluations.¹⁶ Overt conflict may lead to debates in which discrepant evaluations of the same program are presented. Since judgments made by contending parties can affect the interests and prestige of combatants, the process of evaluation could itself become embedded in controversy. Should this occur, the public and its representatives, confused by competing claims, will call for clarification, for disinterested and objective assessments upon which they can rely. Controversy makes it essential that some evaluators be regarded as men of probity and objectivity. The educational system must find a way to solve the problem of integrity-trust in the performance of the evaluative function.

Processes of Innovation and Evaluation

Two facets of the current emphasis on change deserve attention in our consideration of emerging issues in evaluation. The first is the fact of the ferment itself--of the interest in finding and carrying out new ways of instructing children. The second has to do with the scope of changes now underway, with the emergence of large-scale, structural changes. Both aspects of the innovative thrust have important consequences for the conduct of evaluation.

In the decades immediately preceding 1950, public education was characterized by a relatively slow rate of change. Despite the ideological concerns of the twenties and thirties, the principal chronicler of that period does not point to consequences which followed in the actual conduct of school affairs.¹⁷ Callahan argues, in fact, that school practice was heavily influenced by a simplistic conception of business efficiency.¹⁸ Although one can find changes in curricula, textbooks, teacher training, and the like during this period, it is difficult to identify significant structural changes.¹⁹ The energies of American school men and women were absorbed in constructing a vast system of public education along previously conceived lines; the years between World War I and 1950 were years of extending rather than reorganizing a social form.

Although it is difficult to be certain (we lack empirical studies on the conduct of evaluation during this period), evaluation appears to have been part of a system of decision-making adapted to slow rather than rapid change. The thirties and

forties saw the emergence of "democratic administration," of a pre-occupation with winning the support of diverse groups for school activities. The superintendent, by this doctrine, should "involve" a wide variety of publics in school affairs and "harmonize" them into a trouble-free consensus.²⁰ The curriculum committee is symbolic of this ideology. The composition of that body might include citizens at large, teachers, parents, professors, representatives of special interest groups, etc. Curriculum was not an area for the application of esoteric knowledge and research skills. One might, of course, consult an expert in evaluation or curriculum, but the basic mechanism in resolving issues was the vote rather than recourse to "professional opinion."

Whatever the strengths and weaknesses of the participatory model may have been, it cannot be effectively argued that it fostered rapid change. Its very composition and organization conforms to those bodies which Blau describes as least likely to act with dispatch.²¹ The emphasis on consensus did nothing to advance techniques of evaluation. One gains the impression, in fact, that considerably more effort was expended in verbalizing objectives than in operationalizing them. Robert Wood was lead to comment, rather in exasperation, that "public education is a continuing constitutional convention."²²

Change begets more change. For as social systems shift to new and different ways, solutions to problems produce new problems demanding new solutions. Inasmuch as education is engaged in serious change, pressures for more expeditious evaluation will mount. School officials, pressed for more rapid action, will

Could evaluators make initially positive reports on teaming in the early grades and miss effects which become observable, let us say, only during adolescence? What are the latent effects in grading children by age and having them move, almost regardless of ability, at the same rate as their age cohorts? Will self-paced study and nongraded arrangements, in increasing the performance gap between those of the same age, augment or diminish net self-esteem among school children? It would not be hard to produce a long list of such questions--questions which point to our lack of knowledge about the functions of existing arrangements. How effectively can we assess serious change in light of our weak grasp on present learning structures?

Social forms used in instruction can "contain" some values and exclude others apart from the explicit content communicated within the form. A given learning structure, I submit, may "instruct" persons in values considered important by the society yet not be explicitly planned nor consciously evaluated. Note, for example, how different professions use different forms in their professional schools without explicit theoretical justification.²⁴ Graduate departments in arts and science "automatically" rely on seminars and laboratories; military academies cling to recitation long after other institutions have forsaken it; schools of architecture organize instruction around student projects, and medical schools elevate the importance of the clinic and operating room. Are such choices merely "technical" or "accidental"? Could it not be that the selected forms inculcate, by the very rules which

exist within them, implicit conceptions of occupationally appropriate beliefs on such questions as the relationship between knowledge and action or action action rank? What underlying assumptions about structure and values lead graduate students, asked to design single-purpose schools, repeatedly to link loyalty induction to strict hierarchical organization, or creativity as a goal to structural looseness and equality?²⁵ Breer and Locke have shown that temporary, experimental involvement in divergent task configurations tends to change attitudes in divergent directions.²⁶ Is it not likely that protracted engagement in particular learning structures has considerably greater effect on student attitudes and values?

The state of knowledge on interpersonal structures and socialization outcomes forces us to raise questions rather than cite propositions. Yet the probability that structures influence students in as yet unknown ways is, to my view, great enough to have significance for evaluators. To the extent that alternative social forms actualize different values, evaluating "pedagogical means" turns out to be, in fact, the evaluation of "educational ends." Evaluators claiming to assess the effects of large-scale changes should examine functions in depth and decipher effects on latent as well as manifest levels. To ignore such value implications, perhaps by using such a single dimension as cognitive learning, could result in missing unintended and perhaps undesired effects. Large-scale changes make it inappropriate for evaluators to adopt a narrowly technical conception of their role, for such changes add moral complexities to the work of the evaluator.

Broader Goals and Evaluative Expertise

Schooling is more and more a matter of broad societal concern; today, the specification of educational objectives includes references to wider social, political, and economic problems. The schoolhouse is no longer an isolated establishment holding interest only for its students, teachers, and parents; the issues which arise there arouse excitement in many sectors of our society.

Examples of the newly perceived closeness between school and society at large are easy to find. The writer recalls that his undergraduate professors of economics depicted education as a luxury, as an activity using up scarce goods to economically questionable ends. Today, economists pay close attention to the role of education in developing societies and urge heavy investment in it; Schultz and others argue that education contributes directly to human capital formation.²⁷ Time-worn phrases about "equality of opportunity" take on pungency when the federal government commissions James Coleman to measure departures from that ideal in the conduct of public education.²⁸ The report that resulted affects our view of educational goals and processes; we are now more likely to concentrate on the output of self-confidence and the relative contribution of institutions (e.g., the family) outside the formal educational apparatus. Education is involved deeply in other questions of our time, from structural unemployment to crime prevention, from producing more scientists to early identification of emotionally disturbed children.

It is not difficult for educators in convention to write statements outlining education's manifold responsibilities. It is

quite another matter, however, to calibrate specific instructional choices with particular social or economic or political goals. Past practice has been based on the general idea that mastery of conventional knowledge and/or training in a particular trade would result in students prepared for adult life. What happens when the boundaries of conventional knowledge explode? Or what decisions must be made when traditional occupational lines melt under the impact of automation? Such events make the design of study programs extremely problematic and complicate the evaluative criteria to be used. The educator must become expert in gauging events outside of school affairs, in predicting what knowledge will prove basic, what core skills will have generality in the labor market, what educative experiences will prove to be of persisting value.

The verbal broadening of educational objectives will make no discernible impact until specific instructional practices are aligned with specific social goals. Should demands for such refined interconnections develop, acts of evaluation will take on new dimensions of substantive expertise. Evaluators familiar only with procedures organized around in-school events will find themselves puzzled in translating tests or whatever into meaningful indices of relevance to those demands. The question is, what substantive knowledge will prove vital in such assessments? Should that knowledge prove to be various and broad, educational evaluation, as a field of expert study and practice, may itself break down into a series of subspecialties organized around substantive fields and particular societal problems.

Some Notes and Questions

It is clear that the writer believes evaluative functions will become more critical in the years ahead; rational decision-making will hinge largely on whether they can be performed in an effective way. I wish to conclude this paper somewhat unsystematically by making additional comments on emerging issues and by raising a few questions which deserve the close attention of educators. The aim is not to design a general evaluative scheme but to stimulate thought and discussion in the hope that those responsible for governing schools will begin work on needed solutions.

1. We noted that there will be more options available to school personnel. There are forces at work which will enhance the role of evaluators and move evaluation toward greater expertise and specialization. Yet we must not overlook the great likelihood that all persons working in schools will be affected by the presence of more options. Administrators, teachers, and specialists will perceive more personal possibilities in their respective roles; the public at large, long exposed to claims of professionalism, will expect educators to be ready with informed judgments on alternatives. Scarcities in highly trained personnel make it unlikely that there will be enough specialized evaluators around to relieve other educators of all such pressures. Effective evaluation, furthermore, will proceed only as those who are not specialized come to understand enough about assessment problems and techniques to initiate useful questions and make sensible use of findings.

We may see a collision between the proliferation of options and the subculture of those working in public schools. There is, to my knowledge, no tradition of tough-minded empirical evaluation among American teachers and administrators. Their subculture seems to stress the merits of intuitive judgment based upon experience.²⁹ Yet experience is of little use in predicting the potential costs and benefits of novel alternatives. How will school people react to problems they cannot resolve through experience? One possibility is firm and unyielding attachment to the status quo. Another, likely to occur where pressures for change are powerful, is the arbitrary adoption of what appear to be politic programs of action. The writer is willing to wager that such fadism will increase in the years ahead.

Those who have a special concern with evaluation, then, face allocative dilemmas in making the best use of scarce teaching resources in their field. Granted that some upgrading of teacher and administrator knowledge of evaluative basics is needed, what weight should be assigned to that need in comparison to the production of able specialists? Given the massiveness of the educational establishment and the extreme improbability of reaching two million teachers and administrators, which groups have the greatest potential for furthering effective evaluation? Presuming that resources will never be sufficient to find and train "enough" specialized evaluators, how can specialists be deployed to attain maximum effectiveness? In view of the long lead-time required to create new resources of high skill, early attention to such questions seems indicated.

2. The quantity of evaluative work is likely to make it a routine rather than occasional activity of local school districts. It is also highly probable that evaluators will become key members of the administrative group which concerns itself with policy recommendations. Evaluators will need considerable influence if they are to perform well, for they will need control over how innovations are instituted and conducted in order to generate reliable data. Thus, evaluators will take part in setting up record-keeping systems, experimental controls, etc., in order to ensure relevant and dependable feedback on programs and their effects.

Constructing evaluative systems is no novelty to American businessmen and government officials. In business, we find elaborate and precise accounting systems, production records, sales statistics, merchandising data, etc., integrated into overall statements which are highly useful in executive decision-making. The "art" of business management is more and more the "art" of interpreting quantitative data and making inferences about their meaning for corporate action.³⁰ Federal agencies frequently possess complex machinery for evaluation and control of operations.³¹ The diffusion of rational modes of decision-making in public schools will also require the development of feedback systems useful to decision-making.

Moving to the rational model is not without complication, however, and this is especially true in education. Business and government systems occur where there is little dispute over the propriety of hierarchical authority and organization--both tend

the reputation of officials, corporate bodies employ outside accountants to review and report on their financial status. By analogy, we cannot expect protagonists in policy disputes or members of the general public to accept a school system's self-appraisals without question.

Are existing organizational resources adequate to solve the integrity issue, or are new social forms needed? It may be, for example, that critical evaluations will occur infrequently and will be sufficiently independent of university interests so that professors can serve where outside, expert judgments are needed. On the other hand, the volume of work and the consequent necessity for regular "audits" may strain readily available resources in universities and research centers.

What of models from other fields? Medicine, for example, has impressive controls based largely upon the work of pathologists in reviewing surgical tissue and diagnoses through post mortem examinations. But medicine is organized on the basis of sharp autonomy from public inspection linked to a high degree of internal, collegial control, a debatable model for schools which are part of local government. The role of the certified public accountant is more suggestive. A fee-for-service professional, he reports in standard ways understandable to those who choose to learn the elements of accounting rhetoric. Assuming that enough work would be available to give them autonomy from any single client, fee-for-service evaluators could be employed by school boards or, in some cases, dissident groups, to render a public and disinterested accounting.

Such an arrangement might forestall pointless controversies where arguments center on the facts of the case rather than issues of policy.

4. Issues of moral complexity stemming from ends-means ambiguities are difficult to resolve by examining models outside education. It seems that other fields can use simple dichotomies (profit-loss; sick-healthy) which would be gross oversimplifications in education.

Could evaluative reporting, however, pay closer attention to this question of moral complexity by reporting empirical results in several ways? What I am wondering is whether alternative value schemes could be represented by statistical weighting schemes. Thus a single report might review the data gathered from several perspectives and in terms of several generally recognizable educational positions. The reader would be free to introduce his own dichotomies if he chose; the evaluator would, on the other hand, avoid sacrificing complexity for "a clear answer."

I can see several problems in this approach. Considerable work would be needed to find and express moral positions which are meaningful to the key publics involved in public education. Open identification would undoubtedly stir up debate which is currently minimized by fuzzy statements of both goals and outcomes. But might the long-term gains in the quality of public discourse justify short-term conflicts? There is risk in the present course of overlooking value conflicts; evaluation may eventually suffer "whiplash" from publics who realize later that they do really want that particular set of values.

An adequate system of evaluation, whatever its formats for reporting, will have to cope with shifts in the latent functions of instructional forms. But does current knowledge and research permit us to undertake such analysis with confidence? How much does social psychology tell us about relationships between socialization and educational structures? If it tells us too little, what basic research is needed, and what responsibility do evaluators have to further such research?

5. Broadened educational goals raise the question of evaluator expertise. To what extent should evaluators working outside the traditional domains of education (the economy, crime prevention, race relations) possess substantive knowledge which is especially relevant to the problem area?

This is delicate territory for those who, like myself, lack expertise in evaluative methodology. How generally applicable are models used in the field? Has the historic link to educational psychology institutionalized data-gathering techniques and analytic habits that are better suited to in-school than out-school considerations? Can evaluators absorb specialized knowledge about new sectors and problems rapidly enough to practice on a variety of fronts?

Those who have intimate knowledge of the field are better equipped than I to answer these questions. The possibility of specialization within evaluation is, however, an issue which should receive very careful thought. Should such specialization prove desirable, it would have important implications for the training

of evaluative specialists and would point toward greater exposure to a wide variety of university-based disciplines.

Speculative analyses are high-risk undertakings; there is no assurance that the method, no matter how prudent, discerns the truly vital issues. But I can conclude with one certainty. To crack the cake of educational custom is to release forces which, by comparison, make the occupants of Pandora's box appear to be docile, innocent, and amusing creatures.

FOOTNOTES

¹A national survey of teachers conducted by the NEA disclosed that teachers come close to a representative sample of Americans in general in terms of the social class status of their parents. Many observers believe that this represents a broadening of the teacher base. Undergraduate schooling today is considerably more diverse than it was several decades ago; today there are relatively few beginning teachers who have been trained in "single purpose" institutions. See National Education Association, Research Division, "The American Public School Teachers, 1960-61," Research Monograph 1963-M2.

²Bagehot, Walter. Physics and Politics. New York: Alfred A. Knopf, 1948.

³"Evaluation" and "assessment" are given broad definition in this paper, for evaluative acts are intertwined with most educational decisions. The writer assumes, however, that technical evaluation involves some measurement of effects of programs, etc., on students. I have omitted references to the evaluation of personnel since I see it as a somewhat different kind of administrative function.

⁴Callahan, Raymond E. Education and the Cult of Efficiency. Chicago: University of Chicago Press, 1962.

⁵Compare, for example, the preoccupations of the National Science Foundation with those of the Office of Economic Opportunity.

⁶Veblen, Thorstein. The Higher Learning in America. New York: Sagamore Press, 1957.

⁷One might, for example, review the activities of the Education Commission of the States from this perspective.

⁸Liberman, Myron. The Future of Public Education. Chicago: University of Chicago Press, 1960.

⁹Leggatt, Timothy W. The Use of Non-professionals in Public Education, Unpublished doctoral dissertation, University of Chicago, 1966.

¹⁰Shapling, J., & Olds, H. (Eds.), Team Teaching. New York: Harper and Row, 1964.

¹¹Several sociologists of note have made this point. Emile Durkheim was among the most prominent, as in his The Division of Labor, Glencoe, Ill.: Free Press, 1947.

¹²One of the earliest statements of this is found in Hughes, E. C., "Personality and the Division of Labor," in E. C. Hughes (Ed.), Men and Their Work. Glencoe, Ill.: Free Press, 1958.

¹³Gardner, B., & Moore, D. Human Relations in Industry. Homewood, Ill.: Richard D. Irwin, Inc., 1955.

¹⁴The author recently heard a report on this topic by James Guthrie presented at the Annual Social Science Institute of the University of California, Berkeley.

¹⁵There are indications that principals may become a special interest group. In Michigan, for example, they find themselves caught in cross-pressures of bargaining and are considering the possibility of forming their own professional association.

¹⁶The New York City teachers' union was undoubtedly hampered by the somewhat negative report on the M. E. S. program submitted by the Center on Urban Education. One presumes that next time, they will present evaluative studies of their own!

¹⁷Cremin, L. The Transformation of the School. New York: Knopf, 1961.

¹⁸Callahan, op. cit.

¹⁹A possible exception is the introduction of the junior high school.

²⁰Practically any textbook in educational administration published during the period will serve as an example. See, for example, H. Hunt & P. Pierce. The Practice of School Administration. Boston: Houghton-Mifflin, 1958, for a recent instance.

²¹Blau, Peter. Bureaucracy in Modern Society. New York: Random House, 1956.

²²I heard Robert Wood make this statement in a public address in Cambridge, Mass., about 1959.

²³Parsons, Talcott. "The Classroom as a Social System," Harvard Educational Review, Fall, 1959.

²⁴These observations are based on a pilot study conducted by the author of some twenty fields in which vocational training occurs in universities.

²⁵I have asked students, subdivided into groups of four or five members, to design the curriculum and structure of a school system dedicated to one major purpose, e.g., induction of piety, cognitive master, creativity in the arts, etc. This has been done four times, and on each occasion students moved toward similar structures for the same overall purposes.

²⁶Breer, Paul, & Locke, Edwin. Task Experience as a Source of Attitudes. Homewood, Ill.: Dorsey, 1965.

²⁷Schultz, T. W. The Economic Value of Education. New York: Columbia University Press, 1963.

²⁸Coleman, James, et al., Equality of Educational Opportunity. Washington, D. C.: U. S. Government Printing Office, 1966.

²⁹This impression is based on interviews conducted as part of the writer's research on teaching as an occupation.

³⁰The Harvard Business School, long associated with case instruction, recently augmented the amount of quantitative material to be taught their master's students. There was also a special program instituted to train faculty members in the newer quantitative techniques.

³¹Kaufman, Herbert. The Forest Ranger: A Study in Administrative Behavior. Baltimore: The Johns Hopkins Press, 1960.

³²Rourke, Francis E. "Computers and University Administration." Administrative Science Quarterly, March, 1967.

³³Parsons, T. "Some Ingredients of a General Theory of Formal Organization," in Andrew Halpin (Ed.), Administrative Theory in Education, Chicago: Midwest Administration Center, University of Chicago, 1958.

PAPERS FROM THE SYMPOSIUM ON PROBLEMS
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M. C. Wittrock, Chairman

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Benjamin Bloom, Principal Speaker
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